

The image features a minimalist architectural scene. In the foreground, a white rectangular block serves as a base. On top of this block sits a large, white, three-dimensional pyramid. To the left of the pyramid, a white architectural model is partially visible, featuring green geometric patterns that resemble a stylized floor plan or structural grid. The background is a plain, light-colored wall, and the lighting is soft, creating subtle shadows on the surface.

**Architects' Council of Europe / Conseil des Architectes d'Europe**

– Peer Learning Group Report on Architecture Awards as Instruments of Systemic Change.

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# Architecture Awards— Instruments of Systemic Change

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– Peer Learning Group Report on Architecture Awards as Instruments of Systemic Change.

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Pilaitės Gimnazija  
DO Architects  
Norbert Tukaj

## Foreword

This report is the product of a sustained collaborative effort within the Architects' Council of Europe supported by Creative Europe. We wish to acknowledge the valuable work of the Peer Learning Group and to thank all contributors. In particular, the case studies and insights provided by ACE's member organisations have been of huge importance in shaping the analysis presented here.

Architectural awards serve a function that extends well beyond professional recognition. They establish benchmarks for quality, sustainability, inclusiveness, and cultural value. In doing so, they help shape professional practice, inform policy development, and influence public expectations with regard to the built environment.

The role of awards is therefore closely aligned with European priorities. They support the objectives of the New European Bauhaus, contribute to the implementation of the Level(s) framework, and advance the principles articulated in the Davos Declaration on Baukultur. Furthermore, awards provide practical mechanisms for advancing the European Green Deal, achieving net zero carbon targets, and promoting social inclusion.

This report is published at a time when the architectural profession is confronted by interlinked challenges: the climate emergency, housing shortages, and growing social inequalities. By identifying and disseminating examples of excellence, awards have the capacity to highlight innovative responses and encourage their replication across Europe. At the Architectural Biennale in Venice this year awards was discussed in a seminar "Beyond the Prize, How Architectural Awards Can Canalise Meaningful Change" showing the shift towards a more holistic approach.

The report marks a further step in the ACE's role as a leader in promoting architectural quality at European level. It underlines our commitment to working in partnership with EU institutions, member organisations, and practitioners to scale up excellence through awards, competitions, and procurement processes. Awards should be understood as instruments for advancing quality in architecture and embedding sustainability, inclusiveness, and cultural value within the built environment.

Finally, we encourage policymakers, clients, and practitioners alike to draw on the findings of this report. By doing so, Europe can continue to strengthen its architectural culture and set higher standards for the quality of the built environment.



It has been my privilege to work with ACE Member Organisations, with support from Creative Europe, to explore how architectural awards can help scale up excellence in response to the EU's climate, social, and cultural challenges. In dialogue with ACE President Ruth Schagemann, Vice-President Carl Bäckstrand, and Senior Policy Advisor Pierre Obajtek, we launched the Awards Peer Learning Group (PLG) in 2022. Its aim: to examine how national awards incorporate frameworks such as Level(s), the New European Bauhaus (NEB), and Baukultur, and to consider how these frameworks might be used more effectively to recognise and replicate best practice.

Over the past decade, EU and national policies have been rapidly evolving to drive transformation in the built environment. As Chair of ACE's Environment and Sustainable Architecture Work Group (ESA WG), I have had the opportunity to contribute to shaping policy on sustainable buildings, including the Level(s) framework, the Energy Performance of Buildings Directive (EPBD), and the Construction Products Regulation. More recently, the Baukultur Quality System and the emergence of NEB have brought political momentum to the goal of holistic, high-quality, regenerative architecture.

From the outset, the Peer Learning Group (PLG) project sought to test whether embedding these frameworks in architectural awards could strengthen the link between professional recognition and long-term impact. Over the course of two years, the PLG engaged representatives from 12 countries, including Malta, Spain, Finland, Sweden, UK, Greece, Bulgaria, Germany, Lithuania, Estonia, Cyprus, and Ireland, covering key regions across Europe and widely different approaches to architectural awards. We heard directly from the European Commission, including DGs EAC, GROW, ENV, ENER, and CLIMA, as well as the Joint Research Centre's (JRC) NEB team about their response to this initiative and support for Level(s) and NEB integration in EU policies. What emerged was a cross-section of awards practices, and an illuminating discussion about the extent to which awards criteria reflect—or could reflect—climate performance, user wellbeing, and social value.

The case studies included in this report reflect inspiring examples of design that respond to diverse geographic and socio-economic contexts across Europe. While many show remarkable ingenuity, they also reveal persistent gaps in verification, feedback and replicability. Encouragingly, several awards organisers began revising their criteria during this project, showing the catalytic potential of shared learning.

This work has underlined for me the enormous potential for professional bodies not only to support architectural recognition, but to facilitate and engage in much-needed research on architectural quality, its enablers and ways to scale it up.



# Introduction

The introduction of this report reflects the increasing urgency for sustainable architectural practices in the context of climate change, social inequality and political transformations across the EU. It focuses on the role of European architectural awards, run or recognised by the professional bodies of architects across Europe, in supporting climate mitigation and adaptation, and in promoting high-quality design that contributes to social and cultural well-being.

Architectural awards play a formal role in national policy frameworks. As noted in ACE's 2023 Architectural Policies in Europe report, awards, often administered by professional bodies with public or governmental support, help promote design excellence, reinforce professional standards, raise public awareness, and nurture innovation. In several countries, they are aligned with wider policy aims, strengthening the link between professional recognition and public benefit.

This work was carried out in response to the growing recognition of a multifaceted housing crisis in Europe and the imperative for built environment solutions that address four key challenges: availability, affordability, sustainability, and quality. While the primary lens of this report is sustainability and design excellence, the cases considered span both domestic and non-domestic buildings and a wide range of building typologies. These include housing, schools, public realm projects, offices, and cultural institutions. The selected case studies reflect diverse climatic and geographic regions across the EU—from northern Finland to southern Spain and from the Baltics to Ireland—highlighting how different contexts influence both design challenges and opportunities.

Launched by the Architects' Council of Europe (ACE) with support from Creative Europe, this initiative brings together architectural professional bodies from 12 EU countries in a dedicated Awards Peer Learning Group (PLG). Over two years, the group examined the extent to which EU frameworks such as the New European Bauhaus (NEB), Level(s), and the Davos Baukultur Quality System are already embedded in national awards criteria, and how they might further enrich these schemes to support scalable innovation and excellence. The goal was to map current practices, share challenges and enablers, and produce policy and practical recommendations for increasing the reach and impact of architectural awards in transforming the sector.

The report draws on a comprehensive review of awards criteria and stakeholder meetings, held over two years, with representatives from ACE member organisations and award organisers. Through case studies and comparative analysis, it explores how national awards schemes incorporate EU sustainability frameworks, and where they fall short in recognising transformative potential.

## Key EU frameworks underpinning this work include:

- 1 New European Bauhaus (NEB): Promotes projects that integrate sustainability, inclusivity, and aesthetic value. The NEB Compass and Prizes aim to embed these objectives into practice and recognition systems.
- 2 Level(s) Framework: Offers a structured and transparent approach for assessing sustainability performance across the building life cycle, including circularity and indoor environmental quality.
- 3 Davos Baukultur Quality System (DBQS): Provides eight criteria for assessing architectural quality, including governance, resource efficiency, spatial identity, and economic and cultural value.
- 4 Energy Performance of Buildings Directive (EPBD): Sets the path for decarbonising Europe's building stock through mandatory reporting on both operational and embodied emissions.

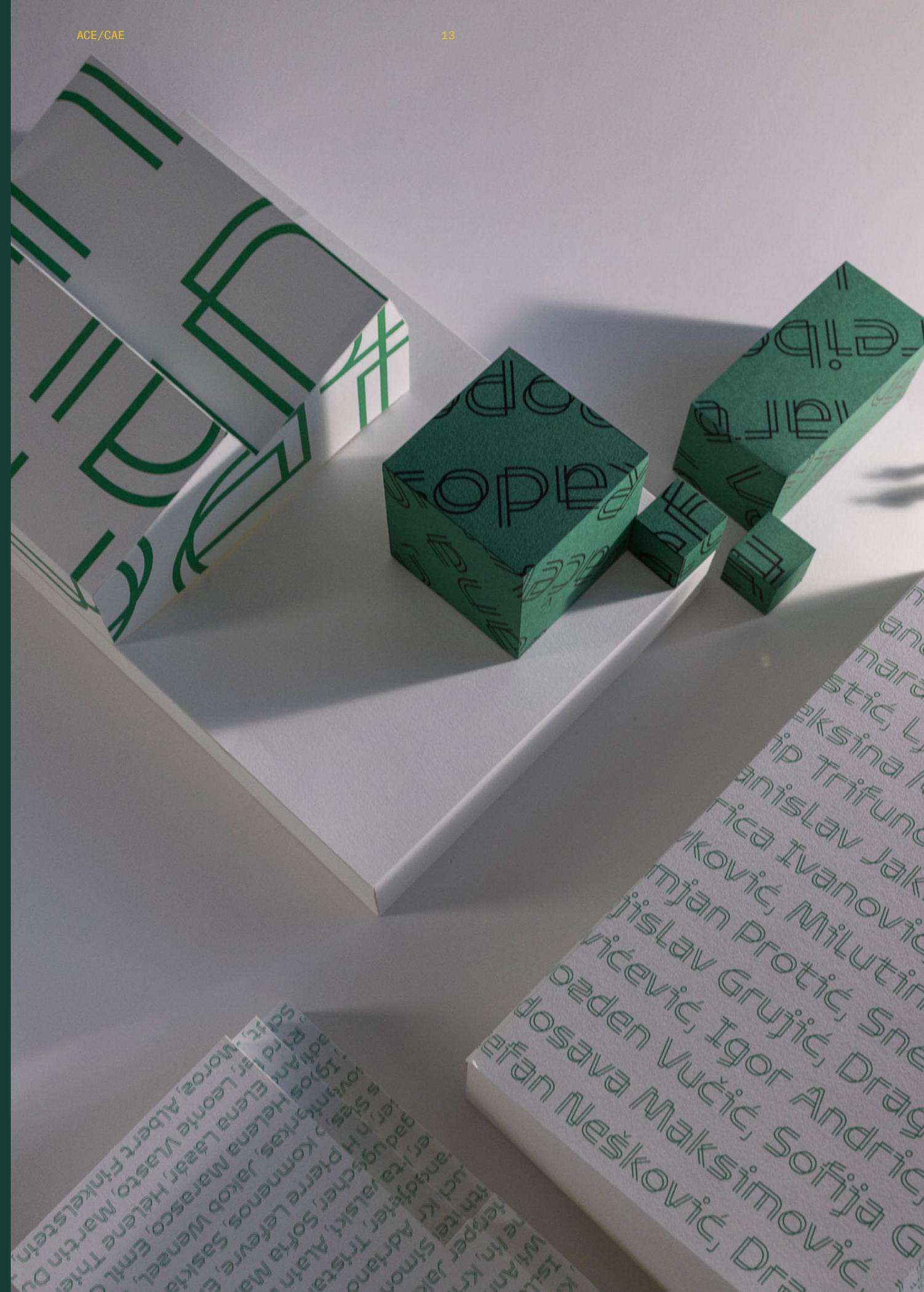
The case studies featured in this report reflect a wide array of approaches to architectural excellence, responding to their specific social, environmental and economic contexts. They range from adaptive reuse and landscape-led regeneration to high-quality social housing and innovative public infrastructure. The aim is not only to showcase best practice but to highlight the systemic barriers to replicating success: lack of feedback mechanisms, uneven criteria, unclear performance expectations, and limited user engagement.

This report provides recommendations for awards organisers, EU institutions, and policy makers. It also identifies areas where further research is needed—particularly around post-occupancy evaluation, innovation transfer, and long-term value. Ultimately, the report makes the case for embedding EU frameworks into awards not as a burden, but as a route to clarity, comparability, and credible leadership.

The following sections set out the background and intent of the Awards PLG, explore the status of NEB, Level(s), and Baukultur integration, and examine 14 case studies through that lens. They conclude with practical recommendations to increase the relevance, impact and transformative potential of architectural awards in supporting the EU's climate and cultural goals.

**Executive Summary**

– Architecture Awards must become instruments of systemic change.



## Executive Summary

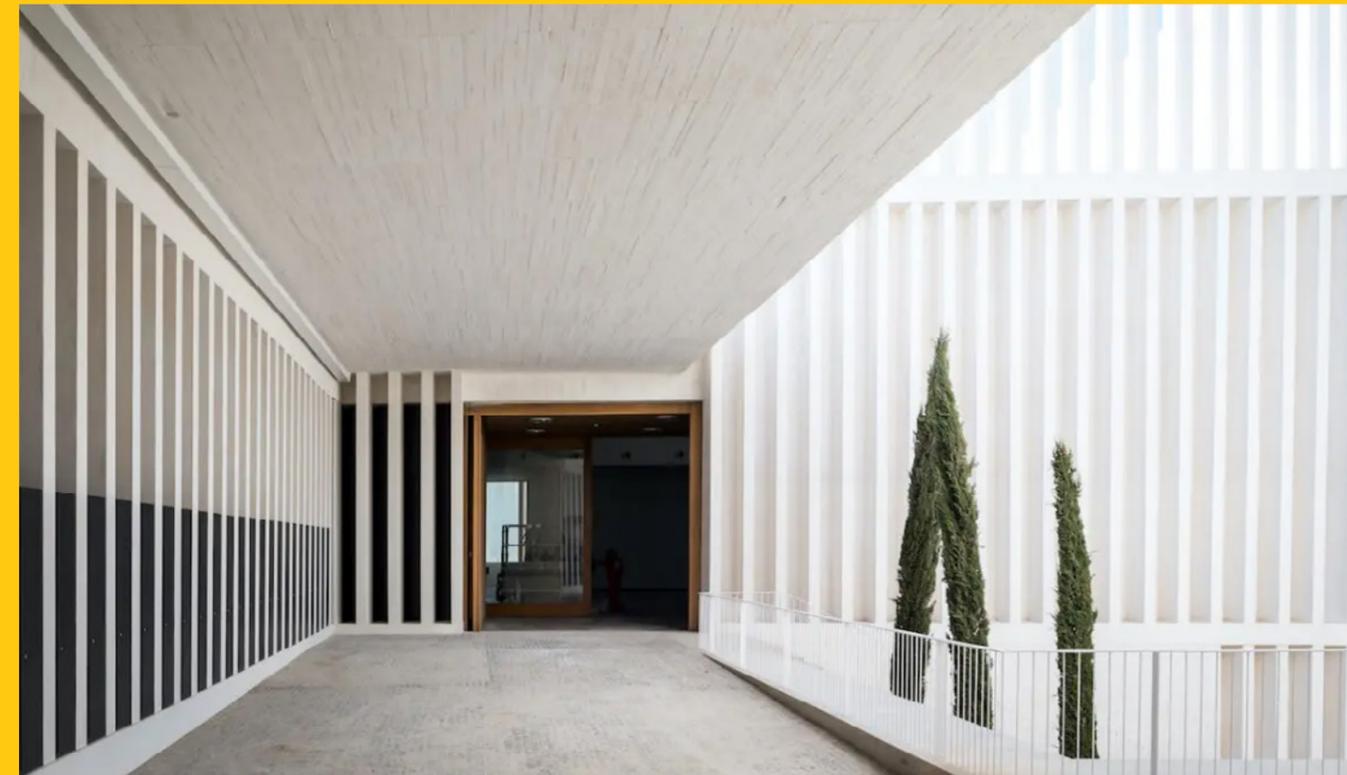
This report explores how architectural awards across Europe can play a critical role in scaling up design excellence that addresses the climate emergency, social equity and cultural value. At a time of profound environmental and societal transformation, we ask: How can the recognition of architectural quality through awards become an active lever in accelerating a just and sustainable transition?

Launched by the ACE with the support of Creative Europe, the Awards Peer Learning Group (Awards PLG) brought together architectural professional bodies from 12 countries to investigate how EU frameworks such as Level(s), *Baukultur* and the NEB are or could be embedded in national awards. Over two years, the PLG engaged with EU institutions, awards organisers, and design practitioners to better understand how architectural excellence is recognised, evaluated and ultimately translated into transformative practice.

The findings are both promising and urgent. Across Europe, award-winning projects demonstrate remarkable innovation in low-carbon design, climate adaptation, material reuse, and inclusive place-making. Yet, the processes by which we evaluate, and reward architecture rarely capture these achievements in a structured way. Criteria such as community participation, lifecycle impact, and post-occupancy performance remain under-reported or absent. While NEB and Level(s) offer powerful tools for evaluating sustainability and cultural value, they are not yet systematically applied in awards, do not demand any form of verification and do not provide a structured framework for their use.

Architectural awards have long acted as cultural mirrors and creative catalysts. Today, they must also become instruments of systemic change. They can raise ambition, reward leadership, and shift norms across the sector. To do this credibly, they must embed transparency, performance feedback, and replicability into the way in which projects are assessed.

The 14 case studies featured in this report showcase excellence across a wide spectrum: rural schools, social housing, adaptive reuse, and urban regeneration. Common enablers include visionary clients, public design competitions, and cross-disciplinary teams. Yet, a clear knowledge gap remains: few projects are evaluated beyond completion. We lack consistent feedback on how buildings perform, whether they meet users' needs and the impact they have on their surroundings over time.



Helga de Alvear Museum  
Tuñón + Albornoz Arquitectos  
Amores Pictures

### To address this, the report calls for:

- 1 Embedding Level(s) and NEB criteria into awards in a light-touch, non-bureaucratic way;
- 2 Incentivising post-occupancy evaluation (POE), including feedback from users, on environmental, social, and economic performance;
- 3 Increasing transparency in jury processes and award criteria;
- 4 Encouraging architectural clients and teams to document enablers, barriers, and lessons learned;
- 5 Ensuring that juries reflect gender balance and include representation from underrepresented groups, including ethnic minorities and neurodivergent individuals, to promote more inclusive and equitable decision-making;
- 6 Encouraging structured, evidence-based research into the drivers of architectural quality, supported by comprehensive post-occupancy and retrospective evaluations that capture social, environmental, and economic outcomes over time;
- 7 Developing a user-friendly, searchable online database that showcases exemplary architectural award winners from across the EU, highlighting their environmental, social, and cultural contributions;
- 8 Trialling AI tools to streamline analysis, editorial processes and policy insight extraction.

**In the end, the report reveals that excellence in architecture today is as much about how buildings perform and engage with communities as it is about form. To transform the built environment, we must also transform how we recognise and learn from what works. Architectural awards are well placed to lead this shift—but only if we equip them with the right frameworks, evidence and ambition.**

**Architectural Awards and the Climate Challenge**

– Architecture is not merely a backdrop to life, but a tool to shape it.



# Architectural Awards and the Climate Challenge

Architecture holds immense power to shape the lived experience of individuals and communities. At its best, it can regenerate entire neighbourhoods, represent a society's values and translate complex climate and social challenges into spatial solutions. Yet too often, its transformative role is underestimated, by policymakers, by the public and at times by architects themselves.

To many architects, architecture is inherently cultural and environmental. It is a means of shifting from a parasitic to a symbiotic relationship with nature, from resource depletion to regeneration. It is not merely a backdrop to life, but a tool to shape it. But recognising architecture's transformative potential also means acknowledging an important opportunity: while awards and accolades have traditionally not verified whether design aspirations translate into long-term performance, user well-being or cultural value, there is now growing momentum, and substantial benefit, in incorporating such feedback into award processes.

There is good reason why a culture of verification is largely absent from the EU construction sector. The Energy Performance of Buildings Directive (EPBD), while progressive in many respects, has never mandated the disclosure of actual energy consumption. Its certification system is based on theoretical performance under standardised conditions, comparable to car emissions testing, rather than how buildings operate once inhabited. While the rationale for this approach is well understood, the regulatory disconnect from real-world outcomes has led to unintended consequences: excessive energy use, poor construction quality, and sub-optimal indoor environmental conditions. With the 2024 EPBD revision mandating whole life carbon reporting for new buildings by 2030, but still without requiring verification against built performance, the performance gap risks becoming even wider. This highlights a missed opportunity. While both NEB and Baukultur now recommend post-occupancy evaluations against defined quality indicators, neither requires them. This limits their ability to drive performance verification and reinforce long-term value, despite their influence on architectural quality discourse.

Europe is at a critical crossroads. Climate change, economic instability, social inequity and biodiversity loss intersect within the built environment. On average, buildings still account for 40% of CO2 emissions. Nearly a fifth of EU homes are affected by moisture damage, and a vast portion of the stock is thermally inefficient and ill-adapted to rising temperatures, flooding, and extreme weather. Meanwhile, access to affordable, quality housing is increasingly out of reach, fuelling social unrest across generations and regions.

Architecture must now act as both a shield and a beacon. It must reduce actual emissions and enhance resilience while also lifting spirits, fostering inclusion and creating places where people can thrive. This is not a purely technical challenge. It is profoundly cultural.

Participating ACE member organisations recognise the urgent need to regenerate the environment, and to do it in a way that stays within national carbon budgets. The 2024 revision of the Energy Performance of Buildings Directive (EPBD) will limit calculated operational and embodied carbon by 2030, placing greater emphasis on the whole life carbon performance of buildings. Yet health and wellbeing in buildings, as well as adaptation to climate impacts, flooding, heatwaves and energy poverty, lag behind. Regulation has yet to catch up, and capital costs continue to dominate procurement decisions over long-term value.

Architecture is uniquely placed to respond. It is one of the few professions that integrates context, spatial design, materials, technical systems and long-term usability in a coherent whole. Architects are trained to synthesise insights from engineering, finance, health and the social sciences. But to fulfil this role, the profession must embrace not just creativity but accountability.

The concept of building 'performance' has often met with scepticism among architects, viewed as reductionist or outside their scope. Yet this report argues that performance, understood holistically, validates the impact of good design. It is time for architectural awards to embrace both creativity and credibility. This means recognising not just aesthetic or symbolic value, but also measured outcomes: user satisfaction, comfort, climate resilience and social value. This is why Level(s), when combined with NEB and Baukultur principles, offers a compelling lens for awards.

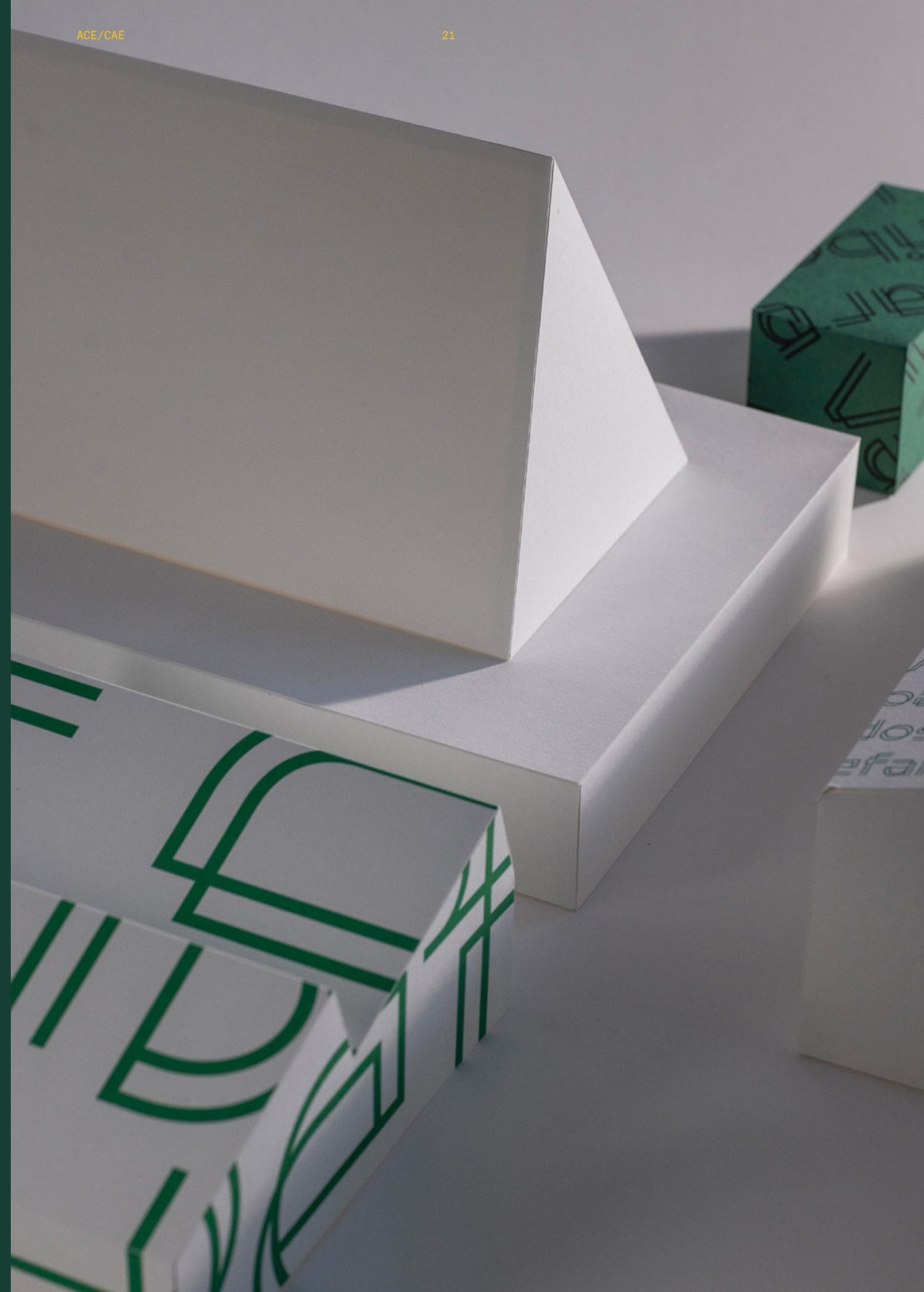
These EU frameworks enable a broader definition of quality, one that spans culture, environment, and governance. But critically, out of all the awards schemes studied, only the UK Stirling Prize currently demand verification, with some awards schemes beginning to encourage reporting, especially in countries where whole life carbon has been a priority for years. For architecture to be more than aspirational, awards must begin to close this loop.

By embedding feedback loops and retrospective evaluation into awards processes, we can help to move architecture from representation to transformation. This report champions awards that highlight architectural creativity while also surfacing evidence of long-term impact.

The next section provides an overview of awards criteria from participating professional bodies, highlighting forward-looking practices as well as areas for improvement. It examines the main barriers to evidencing claimed performance and proposes ways to align awards more closely with EU policy objectives and architectural impact.

**Overview of Professional Bodies' Awards Schemes**

– Schemes have begun exploring the integration of climate and quality-of-life indicators.



## Overview of Professional Bodies' Awards Schemes

This section provides an overview of selected national architectural awards administered by professional bodies across Europe, examining the extent to which they incorporate performance-based sustainability criteria and wider NEB/Baukultur objectives. While many awards promote design excellence, few currently require verifiable performance data or structured post-occupancy evaluation. However, a growing number of schemes have begun exploring the integration of climate and quality-of-life indicators, inspired in part by Level(s), the New European Bauhaus (NEB), and the Davos Baukultur Quality System (DBQS).



UK - Royal Institute of British Architects (RIBA) (Appendix 2):

The UK is currently the only country requiring in-use data on operational energy and potable water use across all stages of its national awards, including regional and national levels. The RIBA Stirling Prize and Reinvention Award additionally require full carbon reporting, including upfront, embodied, and whole-life carbon data, aligned with the RICS Whole Life Carbon Assessment methodology. While calculated data is consistently requested, post-occupancy evaluation (POE) is mandatory only for Stirling Prize entries and is not yet publicly available, limiting transparency and benchmarking.

Germany - Lower Saxony Chamber of Architects (Appendix 2):

In 2023, Lower Saxony became the first German state to introduce a sustainability questionnaire for its Day of Architecture and 2024 for its State Prize for Architecture. Projects may voluntarily report on up to seven key sustainability aspects, including life cycle assessment (LCA), circular economy, biodiversity and energy efficiency. The questionnaire is designed around DGNB Phase Sustainability principles, closely linked to NEB and Baukultur values. While the criteria remain qualitative, the move represents a cultural shift towards formalising climate performance in architectural recognition.

Ireland - Royal Institute of the Architects of Ireland (RIAI):

The RIAI awards programme has integrated performance narratives on sustainability, including links to post-occupancy experience in certain categories. Some projects submitted under public funding have included operational and embodied carbon figures. The Design for Performance programme, co-developed with the Irish Green Building Council, and funded by SEAI is expected to influence awards in the coming years, supporting the introduction of Level(s)-aligned metrics.

Finland - SAFA Awards:

Some award entries have included voluntary performance data, particularly for publicly funded buildings, as part of a broader national drive for carbon neutrality. However, there is no systematic requirement for reporting Level(s) indicators or NEB outcomes, though these frameworks are increasingly referenced in parallel sustainability initiatives.

Other Participating Countries:

Submissions from Lithuania and Spain included strong alignment with NEB principles in terms of aesthetic, social, and spatial quality, particularly in urban regeneration and educational buildings. However, systematic reporting of performance indicators remains limited.

**Findings and Gaps:**

1. While Level(s) (Appendix 6) provides a structured and modular reporting framework, from inception to end of life, very few awards have adopted it beyond basic energy use or carbon metrics.
2. Where used, the data is often limited to design-stage predictions;
3. NEB and Baukultur principles are more widely referenced, especially in qualitative terms (e.g., sense of place, inclusion, adaptability), but rarely evaluated through formal self-assessment;
4. Feedback loops, such as POE, are notably absent from nearly all awards, despite being critical for verifying impact and supporting long-term learning.

Country	Operational Data	Embodied Carbon	POE Required Alignment	NEB/DBQS	Level(s) Indicators
UK (RIBA)	Mandatory 😊	Optional/Mandatory (for National/Stirling) 😊	Stirling Prize Only 😊	Partial Narrative Alignment 😊	Extensive (But Not Audited) 😊
Germany (Lower Saxony)	Voluntary 😊	Voluntary via 7-aspect Questionnaire 😊	👎	Strong link via DGNB Phase Sustainability 😊	Some Overlap Not formalised 😊
Ireland (RIAI)	Some Entries 😊	Public Funding Projects 😊	Case by Case 😊	Stronger via Design for Performance 😊	Partial Uptake 😊
Finland	Some Entries 😊	Some Entries 😊	👎	Cultural References 😊	👎
Lithuania & Cyprus	👎	👎	👎	Strong Cultural/Spatial NEB alignment 😊	👎

Relevance of NEB and DBQS Self-Assessment Frameworks

**The NEB Compass (Appendix 4) and DBQS (Appendix 5) provide structured, if still evolving, frameworks to evaluate architectural quality across environmental, social, and cultural dimensions. While neither requires detailed performance metrics, both promote self-assessment and reflection, and call for evaluation mechanisms to demonstrate impact. These tools have great potential to support outcome-based award criteria, especially when paired with Level(s) reporting for environmental and lifecycle performance.**

The next section explores a selection of award-winning projects through this lens: how they respond to regional challenges, how they demonstrate value and what lessons can be drawn to inform future awards and architectural practice.

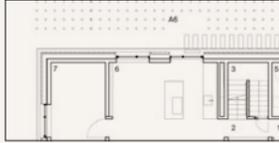
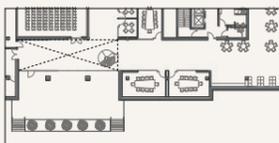
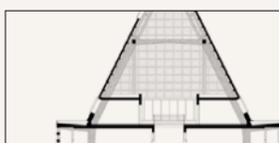
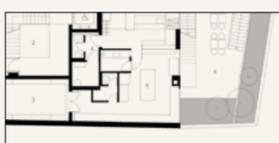
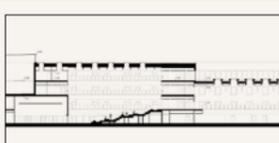
**Case Studies**

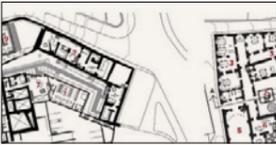
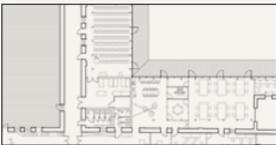
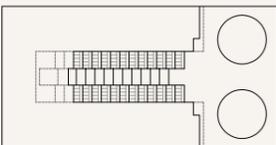
– Representing an understanding of excellence from across Europe.



# Case Studies

The projects presented from selected architectural awards represent an understanding of excellence from across Europe. Each project showcases aspects of culturally significant architecture with a degree of consideration for sustainable design. The summaries below aim to present where these aspects overlap, highlighting where possible what enabled these projects to be created and commenting on scalability. Each case study follows the same template (Appendix 1), where information is not available, the categories have been omitted or marked as not available. They begin with a summary of the project's particulars, followed by its description, and concluded with a commentary on the project's relevance to ACE policy positions.

Case Study	Project	Architects	Country	
Case Study 01	RecyclingHaus	CITYFÖRSTER	Hanover, Germany	01
				
Case Study 02	Leeste Comprehensive School	Remke Partner	Hanover, Germany	02
				
Case Study 03	Martta Wendelin Daycare	SAFA	Helsinki, Finland	03
				
Case Study 04	Kinsale Library	Cork County Council	Cork, Ireland	04
				
Case Study 05	Dept. Climate HQ	OPW	Dublin, Ireland	05
				
Case Study 06	Uhlhornkriche	Pfitzner Moorkens	Hanover, Germany	06
				
Case Study 07	DOT Sofia	I/O architects	Sofia Bulgaria	07
				
Case Study 08	Pilaitės Ginnazija	DO ARCHITECTS	Vilnius, Lithuania	08
				

Case Study	Project	Architects	Country	
Case Study 09	Rumpiškė Regeneration	Urbanism studio PUPA	Klaipėda, Lithuania	09
				
Case Study 10	Bokšto Skveras	Studio Seilern	Vilnius, Lithuania	10
				
Case Study 11	Tech Parkas	A2SM	Vilnius, Lithuania	11
				
Case Study 12	Almadraba Nueva Umbria	So189	Andalusia, Spain	12
				
Case Study 13	Social Housing	RipollTizón	Ibiza, Spain	13
				
Case Study 14	Helga De Alvear Museum	Tuñón + Albornoz Arquitectos	Cáceres, Spain	14
				

# RecyclingHaus— A Circularity exemplar

Case Study 01    Recyclinghaus    CITYFÖRSTER    Hanover, Germany



## Project Overview

**RecyclingHaus is a prototype residential building designed for future deconstruction, utilising upcycled, reused, and recycled components. The project explores the possibilities and potential of a circular and resource-efficient design approach, showcasing various recycling methods under practical, real-world conditions. To demonstrate the possibilities of circularity, most components of the building envelope and interior finishes were made from re-used and recycled parts that were sourced locally. Limitations in the sourcing of recycled materials had a significant influence on the design process and led to a new approach: ‘design by availability’, evident throughout. Concerning the material selection for the structural framework, an adhesive-free solid wood construction was chosen in order to promote a recycling-friendly construction method.**

<b>Case Study Author</b>	Architects and Jury for the Lower Saxony State Prize for Architecture 2020. Edited by Judit Kimpian
<b>Award</b>	Lower Saxony State Prize for Architecture 2020
<b>Location</b>	Treppenkamp 1, D-30539, Hannover, Lower Saxony, Germany
<b>Client</b>	Gundlach GmbH & Co. KG Wohnungsunternehmen, Hannover
<b>Architect</b>	CITYFÖRSTER architecture + urbanism, Hannover <a href="http://www.cityfoerster.net">www.cityfoerster.net</a>
<b>Structural Engineer</b>	DREWES + SPETH Beratende Ingenieure im Bauwesen Partnerschaftsgesellschaft mbB, Hannover
<b>Services Engineer</b>	H2A – v. Heeren Habibi Architekt und Ingenieur PartGmbH, Hannover
<b>Contract</b>	n/a
<b>Completion Date</b>	July 2019
<b>Building Type</b>	Newbuild Residential
<b>Area</b>	-285 m <sup>2</sup> GFA
<b>Cost</b>	n/a
<b>Level(s) Indicators</b>	n/a

## Sustainable Architecture, Circularity, and Level(s) criteria

A key feature of the design is its emphasis on recycling-friendly construction, ensuring that components can be disassembled and reused without compromising quality or having to be separated by material type at the end of the building’s lifecycle.

The building is built on a foundation of recycled concrete and foam glass gravel in a glue-free solid wood construction. Façades, windows and the interior are “harvested” from other demolition projects and reinstalled after a revision. Individual objects are saved before disposal and upcycled or reused.

Architecturally, the project is distinguished by its façade design, which features clear zoning with simple geometric elements made of re-used industrial glass and re-used fibre cement façade panels. The entrance area departs from this approach, incorporating wooden panelling crafted from repurposed sauna benches. The building envelope is composed of recycled materials assembled like a mosaic, significantly reducing its carbon footprint.

The building incorporates recyclable materials, such as glue-free solid timber elements for the structural frame, and repurposed materials, including recycled concrete for the foundation and wall insulation made from old jute bags. Additionally, a significant proportion of the components, where feasible, are reused from the client GUNDLACH’s existing building stock or obtained locally. The interior design features playful and carefully crafted details, maintaining the project’s recycling theme without being intrusive. For instance, a closer inspection reveals bathroom tiles made from bottle caps.

## Summary

The judges rated the project’s strong sense of identity and innovative implementation of circular principles and practice. The construction industry is among the largest producers of waste, consumers of resources, and contributors to global CO2 emissions. Current building design often focuses on operational energy consumption, while the substantial embodied energy in construction materials remains largely overlooked. This project highlights the potential of existing building stock as a valuable resource reservoir, emphasising the growing importance of recycling materials and adopting recycling-oriented construction methods to mitigate environmental impact.

**Relevant EU and related ACE policies:**

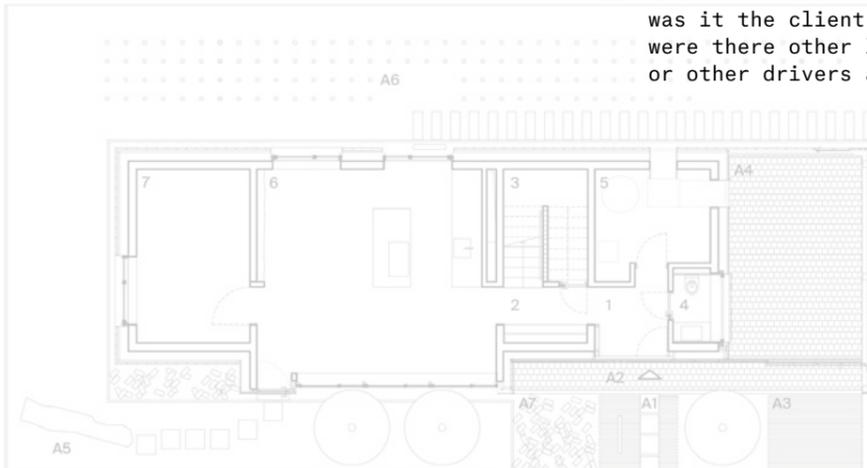
Recyclinghaus offers a compelling vision for the future of circular design and construction, and demonstrates pioneering approaches that could be scalable and cost-effective, if supported by the right policy interventions. The most relevant ACE positions relate to:

- 1 Acknowledge the power of architectural design to popularise key sustainable practices and promote its priority in publicly procured projects.
- 2 Highlight the impact of recycling and reuse on the WLC and pollution impacts of the sector to policymakers.
- 3 Recycled and reusable content must come from somewhere for the circular economy to function: require Local Authorities to designate land and staff in each borough for the storage, sorting, and recertification of disassembled products and materials.
- 4 Work with existing platforms, such as eBay, etc., or create new ones for the resale of such products and materials.
- 5 Train built environment professionals and tradespeople in the disassembly and sorting of construction materials from design to disassembly.
- 6 EU guidance in the EPBD to include best practice in National Retrofit Plans, the requirements for design for disassembly and reuse, the easiest materials and products to come from recycled sources for key building typologies, and a national plan to supply these.
- 7 CPR implementation to make it easier to re-certify reused, recycled, (and biobased) content.

**ACE Recommendations:**

Further evidence would be helpful to provide additional inspiration to the wider sector, and to support ACE policy advocacy around the implementation of the EPBD and NEB. The project presents a compelling case to conduct post-completion interviews with the project team as well as occupants to identify the key barriers and enablers of circular design currently in Lower Saxony. Key questions could include:

- 1 What is the feedback from occupants around the project's functionality, aesthetics, and durability?
- 2 Has this project led to an increased use of recycled and reused components or upcycling by any of those involved and beyond?
- 3 Have the awards received helped inspire similar projects in the region?
- 4 What was the project cost and how does it compare to similar projects?
- 5 What was the timescale of the project and did the recycling effort require more time?
- 6 Did existing procurement practices lend themselves well to using recycled components?
- 7 What difficulties were overcome while sourcing the recycled and reused components?
- 8 How were any difficulties overcome—i.e. more funds, architects' or other team members' pro bono time, etc.?
- 9 What solutions were most scalable?
- 10 Has an LCA calculation been done on this project, how did/would the design perform?
- 11 How did this project overcome the challenges of storing and recertifying materials disassembled from other buildings and building sites?
- 12 What drove the creation of the project—was it the client or the architect and were there other legislative, planning, or other drivers acting as enablers?



Recyclinghaus  
Sascha Priesemann, Gundlach (photos)  
CITYFÖRSTER (plans)



# Leeste Comprehensive School Major Refurbishment— Participatory Planning and Neighbourhood Integration



## Project Overview

The two-storey school building, originally constructed in the 1970s, was comprehensively refurbished while remaining operational. The renovation aimed to satisfy the requirements of a modern school and the regenerative aims of the municipality of Weyhe’s urban development plan.

<b>Case Study Author</b>	Architects and Jury for the Lower Saxony State Prize for Architecture. edited by Judit Kimpian
<b>Award</b>	Lower Saxony State Prize for Architecture 2022—Regeneration of public projects towards Climate Neutrality
<b>Location</b>	Hanover
<b>Client</b>	Community and Mayor of Weyhe
<b>Architect</b>	Remke Partner Architektur. Innenarchitektur. mbB
<b>Structural Engineer</b>	Ahrlich & Partner GbR Ingenieurbüro für Tragswerksplanung und Konstruktion
<b>Services Engineer</b>	M+R Ingenieurbüro für Elektro-Installationstechnik & Ingenieurbüro Beierle Technische Gebäudeausrüstung
<b>Contract</b>	HOAI Vertrag
<b>Completion Date</b>	March 2022
<b>Building Type</b>	Major refurbishment of 1970s school
<b>Area</b>	14,000m <sup>2</sup> GIA
<b>Cost</b>	19.6M EUR total, 1,400 EUR/m <sup>2</sup>
<b>Level(s) Indicators</b>	n/a

## NEB and Baukultur ambitions

**Context** The project connects Henry-Wetjen-Platz in the south to the new S-Bahn station in the north, transforming the schoolyard into a public space that serves as a meeting point, recreational space, and event venue. A relocated main entrance aligns with this new urban axis and provides access to a bespoke cultural forum. This features a summer stage, adding further functionality to the space and strengthening the school’s integration within the local community.

**Public Realm Regeneration** This project exemplifies how a large-scale but underutilised spatial structure from the 1970s can be reimaged to unlock its potential. Through carefully targeted interventions, the existing spaciousness has been reinterpreted to create a more functional and engaging environment. Such an expansive use of space might be impractical for a new build today, but it becomes a defining feature in this conversion

**Sense of Space / Aesthetics** Key changes include replacing outdated glass pyramids with sheds and adding a new porch to serve as the main entrance, all seamlessly integrated into the design to appear as though they were always part of the structure. Additionally, glass partition wall elements were custom-developed and certified for this project, ensuring soundproofed work zones while preserving visual connectivity and cohesion throughout the environment. The reorganisation of the school operation allows the all-day area to function independently while enabling the auditorium to serve as a cultural forum for the community.

Central to the design was the activation of previously unused hallway spaces, transforming them into multifunctional education areas. Custom-designed wood-glass partitions, developed specifically for the project, connect these breakout areas with classrooms, ensuring abundant natural light and maintaining sightlines. Bespoke furniture, co-created with students, provides adaptable solutions for learning, relaxation, and collaboration, aligning with the diverse educational goals of both students and teachers. The multifunctional areas were designed to meet student needs for learning alone, concentrated study, group work, relaxation, rehearsals, communication, and casual “chilling out,” supporting flexible use during lessons and breaks. The design team were able to overcome the challenges of complying with fire safety regulations to create flexible, adaptable spaces to accommodate modern pedagogical methods.

**Participatory Design** Firmly rooted in the belief that refurbishment requires active participation, the architects involved all stakeholders in creating a sustainable, future-oriented learning environment. Guided by the “Clusterschool” concept, the design retained and optimised the existing structure, transforming the layout to foster community and belonging, with each cluster including classrooms, breakout spaces, and areas for group work. The participatory approach, supported by the German Children’s Fund, ensured continuous input from students, teachers, and local stakeholders throughout all project phases.

**Sustainable Architecture and Level(s) Global Warming Potential and Operational energy use** The refurbishment was guided by the principle of sufficiency, focusing on preserving key structural components while enhancing energy efficiency. Elements such as the structural framework, roof, and parts of the façade were retained to minimise resource use.

**Comfort, Health, and Indoor Environmental Quality** Single-slope roofs were employed to reduce summer heat gain, while the layout enabled generous cross-ventilation, eliminating the need for complex mechanical ventilation systems. Structural elements bearing the marks of decades past were thoughtfully integrated with new features, balancing heritage with functionality.

**Materials and circularity** Durability and sustainability were central to the material choices. Long-life materials such as wood, glass, and stonework were selected to ensure longevity of over 30 years. New robust finishing materials, including strip parquet and artificial stone, have been incorporated. These complement the custom-designed wood-glass partition walls and the room-forming wooden furniture, such as seating steps, which define the learning landscapes and provide both functional and aesthetic benefits. Wooden ceiling panels not only met high acoustic standards but also contributed to the building's aesthetic cohesion. Composite materials were deliberately avoided in favour of regionally sourced alternatives, further enhancing the project's environmental credentials. Custom wood-glass partitions, rigorously tested for acoustic performance, ensured that the design maintained both functionality and visual harmony.

**Project Enablers** While the authors had little information about the background to this project, it is important to note that it was procured through the HOAI Vertrag which specific for architectural and engineering services. It's a framework that regulates the fees and services provided by architects and engineers in Germany. It aims to ensure a certain level of quality in architectural services by regulating fees and outlining specific service phases. This helps prevent a "price war" and encourages competition based on quality rather than just cost.

**Summary** This intelligent remodelling approach leverages and enhances the resources of the existing building, resulting in lower costs and higher quality, compared to a new construction. It highlights the potential for sustainable transformation of educational spaces that meet the needs of both students and the wider community. Through collaborative design, energy-efficient upgrades, and the prioritisation of sustainable materials, this refurbishment sets a benchmark for resource-conscious and community-focused school design.



Leeste Comprehensive School  
Remke Partner (plans)

**Relevant EU and related ACE policies** This project is an outstanding demonstration of *participatory design*, a key NEB and Baukultur value. The participatory approach inspired the design of the layouts, built-in furniture, and finishes, transforming the relationship between staff and students and generating innovative ways to deliver the curriculum. The organisation of the space lends itself to more personalised, collaborative ways of learning, supporting a new, more engaging model of teaching, highlighting the importance of architectural design in the long-term usability and resilience of the project. The design team emphasised the importance of end user participation at all key building stages,

ACE promotes the *Retrofit of buildings vs their replacement* and purports that this has cost, carbon, and potentially circularity benefits. It would be hugely helpful if future case studies could evidence these points.

Achieving improved *occupant comfort, greater functionality, and adaptability* through architectural design is a key point of advocacy for architects. Evidencing this through realised case studies would greatly help ACE's advocacy campaigns. The benefits of adaptability and functionality are often difficult to argue for with clients and harder to demonstrate in policy terms why architecture is critical to achieve this. Documenting feedback from end users would add weight to the pictures communicating this.

It is implicitly recognised that existing buildings often have more generous space allocations and volumes, and that new buildings struggle to replicate this now under current construction and cost models. Demonstrating how *sufficiency principles can drive the creative use, as well as long-term resilience, of more generous space allocations* though this case study is hugely valuable.

This project has prioritised designing for a long-life span—primarily through the specification of durable materials and finishes. New EPBD clauses requiring WLC calculations go some way towards incentivising architectural projects to target longer life spans and lower maintenance and operating costs. Crucial to this is understanding the lifespan of building components and designing for their easy access and replacement, especially in the buildup of the building envelope. *Designing for and designing by lifespan*, i.e. ensuring maximum serviceability and reuse of components and durability is an important area of advocacy for ACE.

Demonstrating—with empirical data—the contribution of *passive design* measures to health, wellbeing, low maintenance and whole life carbon is an area of major focus for ACE. Passive design involves a holistic response of a building's behaviour in its environmental context and interaction with end users, which is a key part of architectural design.

**ACE Recommendations:**

It is common practice in architecture to take statements of intent at face value, assuming that is how projects will inevitably pan out in reality. For example, architectural remodelling of space to meet new requirements for functionality and increase cultural value is a common goal for projects. Case studies can provide powerful evidence to further understanding of how such aims are realised in practice. In the case of this project the following areas would be powerful to ascertain:

- 1 How did the occupants feel about the transformation, has a post-occupancy survey been carried out?
- 2 How did the students, the teachers, the client, and the architects feel about the participatory process and the outcomes? Could something be done better?
- 3 Is the Clusterschool (hub) approach working as expected and is it supporting the delivery of the curriculum?
- 4 Are the breakout spaces working as expected?
- 5 Is the school's behaviour policy well adapted to the layout and has the wellbeing of the staff and students improved in the new building?
- 6 Is the public realm section of the building working as intended?
- 7 Is summer heat gain manageable?
- 8 Are the durable surfaces performing as expected?
- 9 Are the heating and electricity bills lower than prior to the refurbishment?
- 10 What was the embodied carbon impact of the refurbishment, how does it compare to operational carbon?
- 11 Are there any integrated renewable energy sources present?
- 12 Is the passive approach to heating, cooling, and ventilation working well? Any overheating?
- 13 Is there sufficient daylight in the building and around the breakout areas?
- 14 Is the lighting strategy working successfully?
- 15 Are the acoustic panels performing as expected?
- 16 Were the VOC levels measured upon completion and since (see avoidance of composite materials)?
- 17 What was the whole life carbon and whole life cost benefit of the refurbishment vs replacement of this building?

The above information would help make this case study a well-evidenced exemplar, promoting powerful messages on how architectural design can deliver socio-cultural, economic, and environmental benefits.



# Martta Wendelin Daycare Centre



## Project Overview

The Martta Wendelin Daycare Centre is a high-profile public building completed in Tuusula, Finland, in 2022. It won the Finlandia Prize for Architecture in 2023 and has been recognised as a model of healthy, low-carbon, and inclusive design for early childhood settings. Commissioned by the municipality to replace a facility plagued by indoor air quality problems, the project is rooted in a client brief that prioritised sustainability, community involvement, and child wellbeing.

<b>Case Study Author</b>	Hugo Pagnol, edited by Judit Kimpian
<b>Award</b>	Finlandia Prize for Architecture 2023
<b>Location</b>	Helsinki, Finland
<b>Website</b>	https://afks.fi/
<b>Client</b>	Tuusula Municipality
<b>Architect</b>	SAFA
<b>Structural Engineer</b>	Ideastructura Oy
<b>Services Engineer</b>	Rejlers Finland Oy
<b>Fire Safety</b>	KK-Palokonsultti
<b>LCA</b>	Granlund Oy
<b>Wood Structures</b>	Wood Expert Oy
<b>Wood Frame Delivery</b>	Puurakentajat Group Oy
<b>Principal Contractor</b>	Oy Arkta Rakennuskultti Oy
<b>Contract Type</b>	XX
<b>Completion Date</b>	August 2022
<b>Building Type</b>	Newbuild, Daycare centre
<b>Area</b>	12,959 m <sup>2</sup>
<b>Cost</b>	€13.1 million, €4,427 /m <sup>2</sup>
<b>Level(s) Indicators</b>	Energy performance: 79 kWh/m <sup>2</sup> /yr (Class A)
	Life-cycle GWP: 15.5 kgCO <sub>2</sub> e/m <sup>2</sup> /yr
	Indoor air quality: High priority with untreated, ventilated CLT construction
	Circularity: Design for reuse and recycling, adaptability, and renovation
	Water efficiency: Data not specified
	Comfort: Lighting, acoustics, and visual comfort prioritised
	Climate resilience: Passive design, meadow planting
	Certification: Nordic Swan Ecolabel
	Biodiversity: Yes, site-specific

### NEB and Baukultur ambitions

**Context** Site integration was carefully considered. The building buffers road noise while opening to forest views and maximising passive solar gain.

**Public Realm Regeneration / Biodiversity** The outdoor landscape includes meadows, biodiverse planting and preserved tree cover, supporting both climate resilience and children's connection with nature.

**Inclusivity / Diversity** The design was informed by consultations with users, including staff and children, and accommodates 200 children grouped into clusters sharing common activity, eating, and rest areas. Spaces are connected by short corridors, with attention to sightlines, acoustic comfort, and daylight interiors.

### Sustainable Architecture and Level(s)

**Global Warming Potential** Designed by AFKS Arkkitehdit, the building is structured in untreated solid wood, in this case cross-laminated timber (CLT), and detailed to promote good indoor air quality without chemical finishes or complex systems. This was highly challenging due to conventional fire regulations requiring the fire-retardant treatment of CLT, which typically involves chemical coatings that could undermine the project's goals around indoor air quality and material purity. Overcoming this barrier required close collaboration with local authorities and creative technical detailing to ensure safety compliance without compromising the building's biophilic and non-toxic principles.

**Operational energy use** Using solid CLT with out the incorporation of insulation was also revolutionary. The building envelope consists of 270 mm thick untreated CLT panels, which contribute both structural and thermal performance. This decision was driven by the aim to avoid composite wall build-ups that would compromise breathability and end-of-life recyclability. According to Plagnol’s analysis, this choice involved detailed simulations and iterative modelling to ensure thermal comfort throughout the year. While this approach required careful optimisation of detailing and solar gain, it resulted in a well-performing envelope for the Finnish climate. Although the operational energy use of 79 kWh/m<sup>2</sup>/year (Class A <90 kWh/m<sup>2</sup>/yr) is higher than the Passivhaus standard, it is considerably better than the average for comparable daycare centres in the region and equivalent to a concrete daycare centre with a highly insulated roof.

More significantly, the absence of added insulation, finishes, and composite materials results in exceptionally low embodied carbon, with the majority arising from the concrete and steel in the building’s substructure. The total life cycle carbon figure of 15.5 kgCO<sub>2</sub>e/m<sup>2</sup>/year is lower than the requirement for new housing in Helsinki (16 kgCO<sub>2</sub>e/m<sup>2</sup>/y), even without accounting for carbon sequestration. This indicates a very low Whole Life Carbon profile, demonstrating that a robust, mono-material design strategy can meet both performance and circularity goals when supported by a holistic and integrated design process.

**Materials / circularity** The building LCA demonstrates that early design choices had the greatest impact on sustainability outcomes: the simple, rational, and healthy construction system was complemented by an excellent traditional cold roof, while the extensive foundation work, driven largely by city planning constraints, was an unavoidable contributor to embodied carbon.

These figures were substantiated using Finland’s Low Carbon Assessment Method, aligned with EN 15978 and EU Level(s).

The building also meets the Nordic Swan Ecolabel criteria, though the process highlighted the limitations of current ecolabel databases, especially around non-toxic materials.

**Comfort, Health, and Indoor Environmental Quality** The construction process and material palette embody sustainability values: the glue-free CLT structure avoids insulation and chemical finishes, while indoor air quality is managed through natural ventilation and breathable materials.

**Adaptability** The building’s form and layout allow for future adaptation and disassembly, supporting long-term circularity goals.

**Feedback** Post-occupancy evaluation has confirmed the building’s high performance in terms of user satisfaction, comfort, and health, making it a rare example of a public building that both meets performance standards and elevates the everyday experience of children and educators.

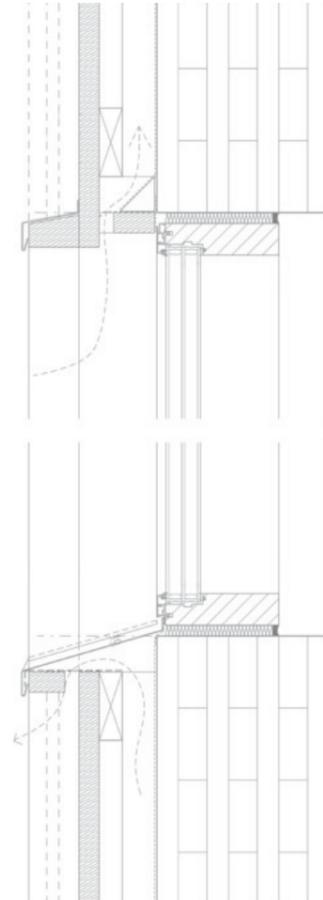
This project illustrates how policy ambition, skilled design teams, and robust assessment methods can come together to deliver award-winning architecture that is rooted in environmental and social quality. It provides a compelling precedent for early years’ education buildings across Europe.



**ACE Recommendations:**

To build on the learning from this project and support EU policy development, the following follow-up activities could be valuable:

- 1 Performance Verification: Conducting a post-occupancy evaluation with detailed energy monitoring and indoor environmental quality data would strengthen the case for mono-material CLT construction in public buildings.
- 2 Scalability Study: Research is needed to assess how this model could be applied across different climatic zones, especially where insulation regulations differ.
- 3 Material Database Improvements: The project highlighted limitations in ecolabel data, suggesting a need for improved EU-wide databases for low-toxicity and circular materials.
- 4 Cost and Procurement Analysis: Documenting how regulatory and procurement frameworks enabled the use of untreated CLT could inform guidance for Member States under the EPBD implementation.
- 5 Address Solid Timber Construction Challenges: Further evidence is needed around thermal bridging performance and long-term moisture risk in monolithic timber buildings.
- 6 Prioritise Early Design LCA: The case reinforces the importance of applying Life Cycle Assessment at the concept stage to guide passive form, material choices, and system simplicity.
- 7 Explore Foundation Alternatives: Given the carbon intensity of foundations, future projects should explore recycled aggregates, cement substitutes, and re-used steel as viable alternatives—while prioritising retrofitting existing assets where possible.
- 8 Account for Services in WLC: The embodied carbon of mechanical systems should be routinely included in WLC studies to help prioritise passive measures.
- 9 Implement Progressive LCA Regulation: Building permit LCAs could be linked to stepwise carbon limits that tighten over time. This would shift practice in line with EU carbon budgets without penalising clients based on wealth, as a carbon tax might.



Martta Wendelin Daycare  
Hannu Rytty (photos)  
SAFA (plans)



# Kinsale Library, Cork

Case Study 04      Kinsale Library      Cork County Council      Cork, Ireland



## Project Overview

The Kinsale Library, completed in 2023 and located in the heart of the historic harbour town of Kinsale, a medieval port town on the north shore of the Bandon River, in County Cork. Conceived as Phase 1 of a larger project involving public realm and accessibility improvements for Kinsale, the project represents a bold civic investment in cultural infrastructure and low-carbon public architecture.

Commissioned by Cork County Council and designed by its in-house architects, the project was developed as part of Ireland's national library capital investment programme. It has been widely recognised for its architectural quality, social value, and climate-conscious design, including being the winner of the RIAI Award for Conservation, Adaption, and Reuse, 2024 Wood Awards Ireland, and finalist for the RIAI Public Choice Award.

<b>Case Study Author</b>	Cork County Council Architects and RIA   edited by Judit Kimpian
<b>Award</b>	RIAI Conservation, Adaption, and Re-use, 2023
<b>Location</b>	Cork, Ireland
<b>Client</b>	Cork County Council
<b>Architect</b>	Cork County Council Architects Department
<b>Structural Engineer</b>	Malachy Walsh & Partners
<b>Contractor</b>	Griffin Brothers Contracting Ltd with Cedarlan Glulam timber as the reserved specialist contractor
<b>Contract Type</b>	Two stage tender PWF-5 V2.4 Minor Building & Civil Engineering Works (<€5m)
<b>Completion Date</b>	July 2023
<b>Building Type</b>	Heritage Retrofit, Public Library & Exhibition Space
<b>Area</b>	674m <sup>2</sup>
<b>Cost</b>	€3,485,000, €5170/m <sup>2</sup>
<b>Additional Finance</b>	Rural Regeneration and Development Fund (€2.1m) + CCC Loan Funded Social Sustainability Investment Programme (€1.4m) + CCC Reserves
<b>Level(s) Indicators</b>	Energy performance: 199kWh/m <sup>2</sup> /yr
	Lifecycle GWP: 29.59 kgCO <sub>2e</sub> /m <sup>2</sup> /yr
	Indoor air quality: heat recovery ventilation
	Circularity: reuse of existing structure and mass timber
	Water efficiency: Data not specified
	Comfort: n/a
	Climate resilience: n/a
	Certification: Wood Awards Ireland overall winner
	Biodiversity: new trees and thrush boxes

## NEB and Baukultur ambitions

**Context and Sense of Place** Kinsale is a medieval port town on the north shore of the River Bandon. Following the Battle of Kinsale in 1601, where English forces laid siege to and defeated combined Spanish and Irish forces, Kinsale assumed strategic military importance with significant fortifications built on either side of the harbour. At its core, the genius loci of Kinsale are defined by a wall and a harbour. These elements are both manifest and alluded to in the transformation of the Old Mill into a new public library. The Old Mill site, also known as the James O'Neill Building, occupies a prominent corner in Church Square at the entrance to a busy car park. Framed by the 13th-century St Multose Church to the south and the Church of St John the Baptist to the north, it sits within a few minutes' walking distance of the town's busiest thoroughfare.

Surrounded by civic and residential uses, including housing for the elderly, the Garda station, and nearby commercial premises, the location offers a diverse and historically layered context for a public library. The conversion of the Old Mill has sensitively reactivated this protected extant masonry shell, integrating it into the town's civic and social fabric.

**Public Realm** The project involved the sensitive alteration and restoration of the historic 19th century protected former grain store, located in an Architectural Conservation Area and a Zone of Archaeological Potential. While a legitimate project in its own right, the building, retaining up to the first floor on the western side, can also be considered an infrastructural artefact at the urban scale, reflecting New European Bauhaus principles. The new library provides improved connectivity to an existing, neighbouring community for the elderly directly to the west, and a notional, elevated public space over an existing car park, which is due to be redeveloped as Phase 2 of this project that would connect with the 1st floor of the library. At the lower level, a new shared surface laid out at the main entrance from Church Square to the south calms traffic and rebalances priority for all road users to the benefit of both library patrons and the neighbouring community.

**The Building** The approach to the existing masonry shell is sympathetic to its origins and materiality with stonework being repointed in lime mortar and white-washed externally while a lime plastered, cork board lining is added to the interior. New structural elements incorporated into the existing building are almost entirely composed of mass timber—Cross Laminated Timber floor panels, glulam timber beams and rafters and plywood sheathing as wall and ceiling linings. The new structure is primarily hung from an existing reinforced concrete ring beam reducing the requirements for excavations (in a Zone of Archaeological Potential) and also the requirements for concrete underpinning to the existing structure.

Kinsale Library houses lending and reading spaces, study and activity areas, a children's library, staff offices, and a multipurpose community room. Generous glazing and a central stair atrium bring daylight deep into the plan and offer a sense of openness and orientation across its three storeys.

As one long space without intermediate floors the existing volume was pleasing, accessible and democratic but the brief required more than double the floor area for operational needs. As a former warehouse, the original openings were small and intended more for ventilation (drying grain) than bringing in light or affording views. The primary architectural response involves the removal of the existing unoriginal roof and the introduction of a new free hanging, timber ossature that subdivides the space over three split levels. The CLT insert also makes a new roof, holds all the 2nd floor shelving within its depth and reaches around a triple height void as it drops to a new polished concrete plinth in the ground floor foyer.

A small brick clad extension on the western flank provides for a librarian's office, plant room and universal access to all levels. While the extension is retaining at ground, at first floor it opens to a neighbouring community for the elderly whose gifted Right of Way unlocks the plan.

### **Sustainable Architecture and Level(s)**

The design is underpinned by sustainable principles, including passive environmental strategies, robust materials, and compact form. The treatment of the existing walls improves the thermal performance of this element of the envelope without overstressing the original fabric. The new internal lining ensures thermal comfort, while mitigating humidity and also providing sound absorption. The new elements, including the new roof to the existing building and the extension are designed to NZEB standards. Where possible, recycled materials have been deployed e.g. the new roof of the main building is finished in reclaimed Blue Bangor slates, cork board insulation lining, lime plaster, and brick. Reuse of the existing masonry envelope and deploying mass-timber for the primary structure, further lowered the project's embodied carbon footprint. The building achieved a BER of A2 and a Nearly Zero Energy Building (NZEB) rating, demonstrating high performance in both envelope and services. The project incorporates mechanical heat recovery ventilation and efficient lighting and control systems.

The use of mass timber / engineered timber as the primary structure in a multi-story public building is not standard practice in Ireland. As such Building Control was highly cautious in its approach to fire certification and arguably insisted on more mitigation measures (intumescent coatings, larger section sizes, sprinklers etc) then were reasonably required to ensure fire safety.

Native trees and shrubs are planted around the building's perimeter to improve the biodiversity of the site and thrush boxes are provided on the roof of the extension for nesting birds.

### **Participatory design**

The process was notable for strong collaboration between the design team, client, and local community. Engagement with diverse user groups informed both spatial planning and programming, ensuring that the building serves as a truly inclusive and multi-generational resource. Feedback since opening has confirmed high levels of user satisfaction and increased footfall, validating the investment in design quality as a driver of public engagement. Kinsale Library was designed as a democratic free space open to all people, groups, individuals and minorities.

### **User Experience and Operational Performance**

In the 10 months since the building has been operational, over 100,000 people have visited Kinsale Library. This is twice the projected level at the pre-design stage. Considering the population of the town is only just over 5,000 the number of people coming to this place is notable. It is expected that events and attendance at events to increase at a higher rate than membership or issues, so visitor figures could increase even further than the figure projected above.

"The innovative design of Kinsale Library has given Cork County Library Service a space that exceeds our service requirements. Ample space for books by utilising the wall spaces between the beautiful wooden structure, study spaces incorporated into the mezzanine design and two event options including the intriguing lobby has transformed the level of service we can now provide in Kinsale.

Kinsale Library is a beautiful building both inside and outside. The use of materials, light and space has created a very special atmosphere, enabling library users of all ages and needs to use the space harmoniously. The outstanding design affords staff the ability to provide the highest level of service, which has been reflected in usage levels. In the first four months since opening there have been 52,722 visits, of which 2,239 attended events. This Library will be a key landmark in Kinsale for many decades to come."

Emer O'Brien, County Librarian,  
February 2024.

### **Project enablers:**

Cork County Council proved to be an inspired and pragmatic client, willing to make bold decisions in support of long-term public value. Rather than maximising private office space, they prioritised higher quality public areas, recognising the importance of civic presence and accessibility. Significantly, they committed funds to submit the planning application even before full project financing or a complete design team was secured. This proactive and risk-tolerant stance enabled the project to progress through key stages without delay and helped maintain design integrity throughout.

However, there is a growing awareness of the concept which has been promoted by the Architects Department within CCC for years. The importance of this concept has been further highlighted to stakeholders through initiatives like THRIVE whereby successful funding applications are required to demonstrate Baukultur qualities.

### **Summary**

Kinsale Library exemplifies how modest-scale public architecture can deliver high environmental, social, and cultural value. Its compact, contextually responsive, and energy-efficient design contributes meaningfully to the town's civic life and represents a replicable model for other local authorities. The dramatic increase in visitor numbers demonstrates the power of architectural design to reactivate under-utilised urban locations with an impact far beyond a project's footprint.

**Relevant EU and related ACE policies:**

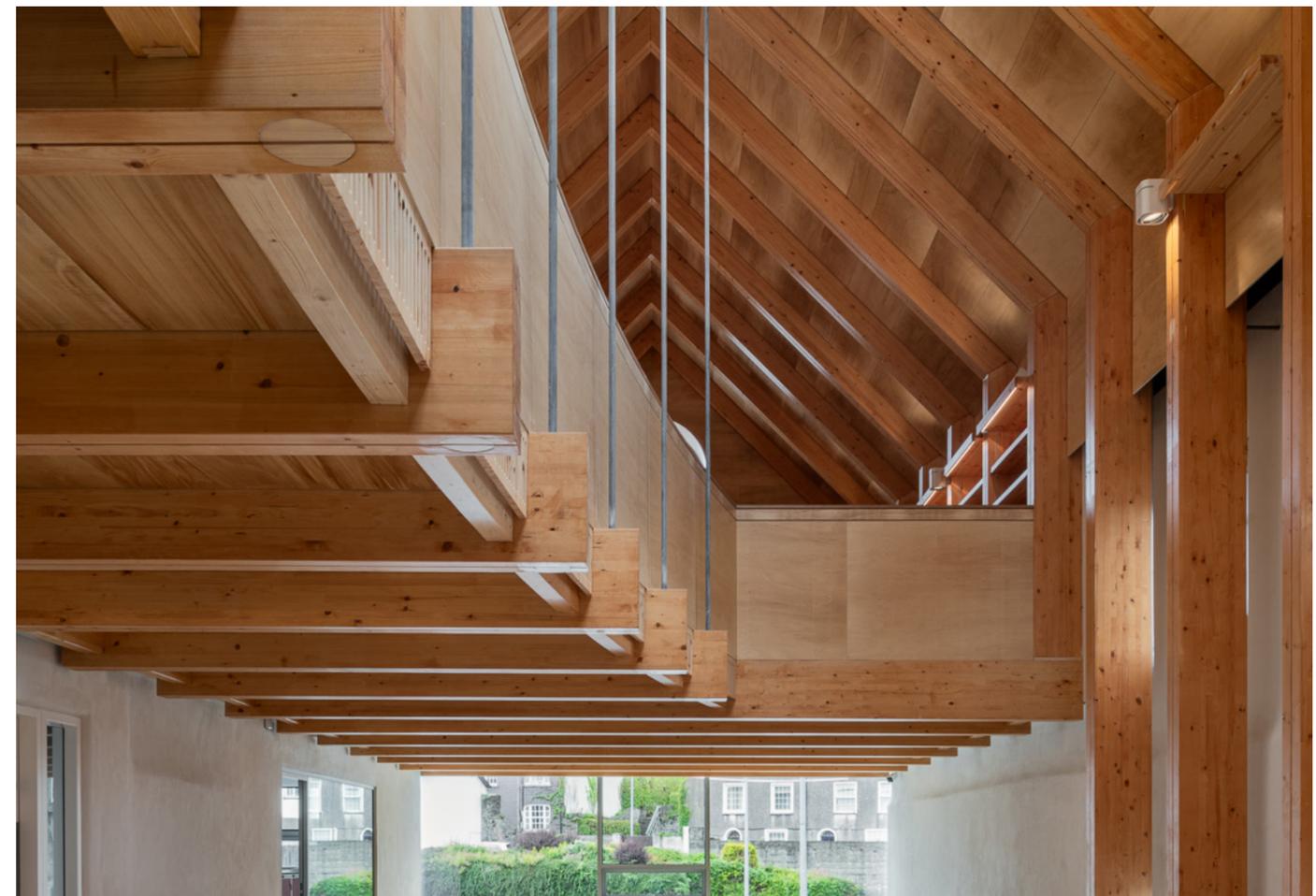
This project supports several key ACE policy messages and EPBD objectives:

- 1 Architectural Quality as a Catalyst for urban transformation
- 2 The project embodies ACE’s call to recognise the role of high-quality design in reactivating urban sites delivering social, economic, and environmental value.
- 3 Integration of Level(s) and circularity principles. The design integrates passive design strategies with architectural sensitivity, demonstrating how energy and resource efficiency can be integrated in culturally significant projects. A whole-life design approach manifested in the reuse of the existing structure as well as the specification of mass timber and other low carbon materials for structure and fabric—resulting in a low WLC figure despite fairly typical annual energy consumption figures. It is encouraging that countries that are working faster towards WLC targets can report calculated LCA values in awards.
- 4 Public Sector Leadership. As a public project, it supports ACE’s call for the public sector to lead by example in promoting integrated, whole-life design approaches especially when it comes to amplifying the civic value of urban areas by repurposing and restoring of historic sites. The library enhances the wider urban fabric and fosters intergenerational use, aligning with ACE’s emphasis on multi-scalar impact from building to neighbourhood.

**ACE Recommendations**

To support the wider adoption of this model and inform EPBD transposition across Member States, we recommend:

- 5 Post-Occupancy Research: Commission post-occupancy studies to assess thermal comfort, lighting quality, acoustic performance, as well as user satisfaction and wellbeing to support future investment and evidence-based design. Recommend study of the durability of the building fabric and the effectiveness of the vapour-permeable build-up.
- 6 Enablers: Investigate what has allowed the local authority to take on the additional risk - was it that the architects were well-known and in house?
- 7 Whole Life Carbon Assessment: Develop and disclose WLC data to evaluate the balance between operational efficiency and embodied carbon in the concrete/steel structure. Investigate the use of recycled aggregates, cement substitutes, and low-impact groundworks in historic settings. Introduce mandatory building permit LCAs with gradually lowering WLC limits to reduce emissions over time. Account for mechanical services in WLC assessments to support passive-first approaches.
- 8 Circular Design Potential: Increased clarity with respect to Fire Safety (Part B) to reflect international research and developments in mass timber construction and best practice. Provide financial incentives for the use of and/or production of biobased construction materials. Provide clarity with respect to Agément Certification vs CE marking for mass timber products. Investigate opportunities to integrate circularity principles in future iterations—e.g., use of biobased or demountable structural elements, and flexible internal layouts.
- 9 Scalable Public Procurement: Use this project to inform model procurement briefs for local authorities seeking to embed architectural quality and sustainability into small-scale civic infrastructure.
- 10 Training and Dissemination: Promote the project through CPD and training events to raise awareness among local authorities, architects, and contractors of how good design can deliver multiple forms of value. Use Kinsale Library as a teaching tool in CPD, highlighting its lessons in low-carbon design, civic value, and adaptive reuse.



Kinsale Library  
Jed Niezgoda (photos)  
Cork County Council (plans)

# Department of Climate, Energy and Environment HQ, Dublin

Case Study 05    Dept. Climate HQ    OPW Architectural Services    Dublin, Ireland



05

## Project Overview

The deep retrofit of this six-storey 1970s office building to a modern fourth-generation Grade A workplace sets a new benchmark in Ireland for combining architectural quality, environmental ambition, and civic value. It creates modern working environments that maximise daylight, natural ventilation, and the use of low-impact materials, while significantly reducing operational energy demand. Through sensitive transformation of the original structure, it balances heritage, usability, and decarbonisation. It will feed into further similar projects across the entire State Estate Office Accommodation portfolio as required by the Government's Climate Action Plan. The project showcases how retaining and adapting an existing building can achieve operational energy levels approaching those of new NZEB builds, while reducing embodied emissions and demonstrating practical application of circular economy principles at scale.

<b>Case Study Author</b>	Office of Public Works, (OPW) Architectural Services
<b>Award</b>	RIAI Awards 2024 Sustainability and Workplace Fitout categories; Ireland's Climate Change Leadership Awards 2024—Green Building Project of the Year; Ireland's Wood Awards 2024—Winner of Large Public Building and commended in Restoration, conservation & Reuse; Sustainable Energy Authority of Ireland Awards 2024—Energy in Buildings; Irish Construction Industry Awards 2024—Finalist Commercial Project of the Year / Green Project of the Year; The Irish Building & Design Awards 2024—Finalist Building Project of the Year
<b>Location</b>	Tom Johnson House, Beggars Bush, Dublin 4, Ireland
<b>Client</b>	Department of Climate, Energy and Environment (DCEE)
<b>Architect</b>	OPW Architectural Services
<b>Structural Engineer</b>	Atkins Global
<b>Services Engineer</b>	James Long—Lawler Consulting
<b>Contract Type</b>	Two stage Tender including Specialist Contractors, PWF-1 Building Works designed by the Employer.
<b>Completion Date</b>	Substantial Completion achieved at the end of 2023. Completion of Contract Defects Period Q1 2025
<b>Building Type</b>	Heritage Retrofit, Office, with national cyber security infrastructure
<b>Area</b>	10,570m <sup>2</sup>
<b>Cost</b>	Final A/C not agreed
<b>Additional Funding</b>	EU Recovery and Resilience Facility and the Office of Public Works
<b>Level(s) Indicators</b>	Energy performance: 33 kWh/m <sup>2</sup> /year (calculated); Primary energy reduced from 253 kWh/m <sup>2</sup> /year to 47.3 kWh/m <sup>2</sup> /year (81% reduction in primary energy use); annual saving of -€202,982 based on electricity cost of €100/MWh Air tightness: 1.98 m <sup>3</sup> /h/m <sup>2</sup> Embodied carbon: 287 kg CO <sub>2</sub> e/m <sup>2</sup> incl. Retrofit and Site Work (new build option was 563 kg CO <sub>2</sub> e/m <sup>2</sup> ) Lifecycle GWP: n/a Indoor air quality: natural ventilation with stack effect; MVHR HVAC: heat pump & MVHR Circularity: Reuse of concrete structure and brick envelope Water efficiency: 19 l/s; 41% improvement; Low-flow fittings and controls Comfort: n/a Climate resilience: n/a Certification: NZEB for new buildings (Technical Guidance Document L-Conservation of Fuel and Energy – Buildings other than Dwellings 2017) Biodiversity: planting in the west courtyards

## NEB and Baukultur ambitions

**Context** Tom Johnson House (TJH) is part of a wider state strategy to decarbonise Ireland's public building stock. Constructed in the early 1970s as a concrete structural frame and waffle slab office building, it stands on the historically significant Beggars Bush Barracks site in Dublin. Though not architecturally listed, and set back from the surrounding roads, the building plays a key role in framing the entrance courtyard to

the barracks. Prior to retrofit, TJH had become outdated and energy inefficient, with cellular layouts, poor glazing, minimal insulation, and inefficient services. The retrofit approach balances sensitivity to context with the pressing need for environmental upgrade, maintaining the integrity of the original massing and rhythm while thoroughly transforming its performance and use.

**Sense of Space / Aesthetics** The design team adopted a restrained approach that respected the building's 1970s character and its Beggars Bush Barracks context. A minimalist reworking of the façade retains the original massing and rhythm while introducing bronze anodised aluminium sills that complement the original brown brickwork. This careful integration of new and existing elements allows the building's identity to be preserved and refreshed without disrupting its setting.

The refurbishment seeks to maximise the capacity of the existing building by increasing its occupancy from approximately 150 staff to 500 staff. At the same time the design is conscious not to over-densify the occupancy and the open plan office environment is carefully subdivided to maintain a quality of space and integrity of human life.

Aesthetic improvements include the introduction of picture-frame windows that maximise views over the city, a central atrium that improves daylight and spatial legibility, and a reconfiguration of dark cellular spaces into bright, open-plan work environments. Informal 'break-out' areas created within each open plan office area, 'quiet rooms' and 'collaboration' tables allow for impromptu meetings and social interactions. The project promotes a new work lifestyle of open plan working environments balanced with smaller, quieter relief spaces coupled with bookable meeting rooms and enclosed offices to reflect the needs of today's blended working environment. The creation of a large conference facility with auditorium and catering spaces also allows for wider public engagement. Landscaping reactivates a west-facing courtyard, enhancing accessibility and biodiversity.

A minimalist approach to the external and internal modifications of the existing building ensured that any new materials selected, work with the existing context. Natural materials such as Kilkenny limestone and timber were used for finishes, contributing to occupant wellbeing alongside improved acoustic performance. Existing materials and furnishings were reused wherever possible, for example, laboratory worktops were repurposed into canteen tables, helping preserve a sense of continuity and reducing waste. The overall result is a building that feels more spacious, healthier, and better connected to both its users and its urban context, while maintaining a strong connection to its original identity.

**Public Realm Regeneration** The transformation of Tom Johnson House included the regeneration of two existing courtyards, which were either retained or replanted with species selected specifically to promote biodiversity and enhance visual amenity. These courtyards, previously underused, now serve as accessible and inviting green spaces that support both ecological and social value. Direct access from internal spaces, including the staff canteen, encourages regular use and interaction with the landscape.

To improve environmental performance, external drainage systems were upgraded with a new network of gullies, downpipes, and outlets to manage stormwater effectively. A comprehensive ecological screening informed the landscape strategy, with biodiversity promotion identified as a key project driver.

Planting choices in the west-facing courtyard support pollinators and native species, reflecting the commitment of both the design team and the client to ecological enhancement. This ambition is reinforced by the client's own biodiversity group, which supports ongoing promotion of biodiversity principles through both internal and external planting schemes.

**Participatory design** The Tom Johnson House retrofit placed a strong emphasis on communication and engagement throughout the construction phase. Monthly newsletters issued by the contractor kept residents informed of construction progress and upcoming activities. To minimise disruption, dust and noise levels were continuously monitored and remained well below regulatory thresholds.

Internally, the building design supports a reimagined way of working for DCEE staff. The refurbishment encourages paper-lite operations and supports hybrid working models. Facilities such as secure internal cycle parking, changing rooms, and drying areas promote active travel and healthier lifestyles. These additions are expected to enhance day-to-day well-being and reflect a cultural shift toward more sustainable and flexible work patterns, enabled by the spatial and organisational transformation of the building.

**Inclusivity** The refurbishment of Tom Johnson House was shaped by a strong commitment to inclusion, creating a workplace that supports diversity across roles, needs, and abilities. A variety of social and collaborative spaces, including an

auditorium, training and meeting rooms, quiet and breakout areas, and accessible courtyards, were designed to foster informal exchange and collective learning across all organisational levels. User autonomy is central to the workplace design: all workstations are height adjustable; local window and temperature controls allow individuals to tailor their environment; and accessibility needs are addressed through hearing loops, braille signage, and video screens. Early engagement with the Department's accessibility group informed measures that go beyond minimum standards, including generous provision of universally accessible toilets and changing areas, automatically opening doors, and a wheelchair-accessible height-adjustable lectern in the auditorium.

Colour-coded floors aid orientation, while accessible circulation is ensured throughout. The project was also procured under EU public procurement rules, supporting equal opportunities for consultants and contractors.

**Governance** While not all stakeholders were explicitly familiar with the Baukultur concept, the project was firmly rooted in the OPW's internal design policies, which align closely with Baukultur principles of quality, place-based design, and long-term public value. The design team had prior knowledge of these principles and applied them throughout the project.

Though no formal Baukultur guidance existed in Irish regulation at the time, quality of place was consistently prioritised. Regular stakeholder meetings, including presentations and client staff feedback sessions, ensured the design process was inclusive, transparent, and participatory—well supported by statutory planning frameworks.

The OPW led the project through a dedicated Steering Group and Project Team, both chaired by experienced OPW representatives. As a public body with high project management maturity, OPW ensured rigorous oversight across all stages. Externally procured design consultants were selected through a quality-based tendering process, demonstrating relevant expertise in complex retrofit projects. OPW's own design team members complete annual CPD plans to maintain professional competence and technical leadership.

Contractors were selected through a pre-qualification process with a strong emphasis on quality, ensuring their capability to meet the project's high conservation and performance standards. Transdisciplinary collaboration across architecture, engineering, ecology, and building physics was essential to address the environmentally complex aspects of the project, helping deliver an integrated design solution that balanced technical innovation with contextual sensitivity.

## Sustainable Architecture / Level(s)

**Global Warming Potential** The retrofit of Tom Johnson House embodies a rigorous low-carbon design strategy for circularity, passive design, and indoor environmental quality. The reuse of the existing concrete structural frame, circulation cores, floors, brick façades, and internal fittings extended the building's lifespan by at least 70 years at half the embodied carbon of an efficient new building. Original DCEE furniture was also repurposed, including laboratory worktops reused as canteen tables—contributing both materially and symbolically to the project's resource efficiency.

The building has been decarbonised through the elimination of fossil fuel-based systems and a significant reduction in energy demand. Operational primary energy use was reduced by 81%, from 412 kWh/m<sup>2</sup>/year primary energy (BER C3) to 47.3 kWh/m<sup>2</sup>/year (BER A2) primary energy, with projected metered energy consumption of savings of 33 kWh/m<sup>2</sup>/year. This represents over 2 GWh annually across the 10,572m<sup>2</sup> floor area, potentially positioning the building among the world's most energy-efficient offices.

A combination of technologies underpins this transition:

- Roof-mounted photovoltaic panels reduce reliance on grid electricity.
- Air source heat pumps provide heating, cooling, and hot water throughout most of the year.
- Mechanical ventilation systems include heat recovery, significantly reducing heating demand.
- A biofuel-powered backup generator ensures continuity while maintaining carbon accountability.
- Energy Monitoring System which constantly monitors and logs electrical and fuel consumption allow systems to be centrally adjusted.

The building fabric was radically upgraded: the entire envelope was insulated to a high standard with low U- and g-values, triple-glazed, low-emissivity windows were installed on all solar-facing elevations. The building achieved an airtightness of 1.98 m<sup>3</sup>/h/m<sup>2</sup>, compliant with EN ISO 9972:2015 and exceeding best practice for retrofits.

A naturally ventilated design, supported by an intelligently controlled active façade, enables mixed-mode operation. Sensors control window

actuators based on CO<sup>2</sup> and temperature levels, while users retain manual override. A central atrium acts as a daylighting and ventilation spine, using the stack effect to exhaust warm air via roof vents discreetly integrated into the profile. The same vents serve as a smoke exhaust in case of fire.

Lighting design follows a daylight-first approach. The atrium floods internal zones with natural light, minimising artificial lighting needs. All lighting systems use efficient LED fittings, motion detection, and daylight-responsive dimming controls.

Collectively, these strategies deliver not only major reductions in operational energy and carbon but also improved comfort, flexibility, and resilience—demonstrating how Level(s)-aligned whole-life thinking can transform mid-century office stock into high-performance, future-fit civic assets.

**Materials and Circularity** The refurbishment of Tom Johnson House follows a rigorous circular design strategy, guided by OPW's sustainable approach to specification. Materials were selected for durability, low environmental impact, recyclability, and a target lifespan of 50–70 years.

The existing concrete frame, waffle slab, brick façade, and circulation cores were retained and exposed, significantly reducing embodied carbon. Furniture and fittings from the previous DCEE HQ were reused wherever possible, including laboratory worktops repurposed as canteen tables, to reduce waste and reinforce continuity. Where new materials were required, natural, recycled, and locally sourced options were prioritised:

- Natural materials: timber for internal finishes and joinery; natural raw paints; resilient rubber flooring; Kilkenny limestone for public areas.
- Recycled content: 100% recycled carpets; foam glass podium insulation; ceramic tiles with 22-25% recycled content; metal ceiling tiles and glazing (29% cullet).
- Recyclable components: aluminium frames (curtain walling, sills, windows); modular workstations; steel stair/atrium structures; raised access floors and ceiling systems—designed for easy disassembly and reuse.

Construction waste management achieved over 90% diversion from landfill, with monthly third-party audits verifying reuse, recycling, and material recovery protocols. Together, these measures halved the embodied carbon compared to a new build alternative (412 vs. 802 kgCO<sub>2</sub>e/m<sup>2</sup>), while reinforcing long-term adaptability and resilience. The project stands as a scalable model of circular public architecture aligned with Level(s) indicators.

**Comfort and Indoor environmental quality** Comfort and indoor environmental quality were central to the refurbishment of the DCEE HQ, supporting well-being and productivity through daylight access, fresh air, and acoustic control.

**Daylight and Visual Comfort** A new central atrium dramatically improves natural light penetration to the building's core and adjacent open-plan offices. This replaces the former cellular layout with bright, legible spaces, reducing reliance on artificial lighting.

**Indoor Air Quality and Ventilation** A hybrid ventilation strategy combines passive and active systems. The atrium enables stack-effect ventilation, drawing warm air upward. CO<sup>2</sup> sensors connected to the BMS activate window actuators to regulate air quality. Occupants can also manually open windows for added comfort.

**Acoustics and Noise Control** Acoustic performance meets high standards across all areas. Measures include:

- Floor-to-floor sound-insulated partitions installed floor slab to floor slab
- Acoustic panels in waffle slab coffers to dampen reverberation
- Perforated timber ceiling panels for sound absorption

Post-completion testing by a specialist consultant confirmed that the building meets its acoustic performance targets.

Together, these features deliver a high-quality indoor environment with improved daylight, air quality, and acoustic comfort, integral to the building's sustainability and usability.

**Climate Change Resilience—Overheating** To future-proof the building against climate-related risks, a pre-construction Climate Risk and Vulnerability Assessment identified key threats, including overheating and flooding, informing both design and maintenance strategies.

**Thermal Comfort and Overheating Mitigation** Smart controls and passive systems maintain comfortable internal temperatures year-round:

- Indoor temperature sensors linked to the BMS activate window actuators or radiators based on preset thresholds.
- Occupants retain manual window control, enhancing responsiveness during warm periods.
- Overheating analysis predicts only 2-3 days annually outside the thermal comfort range.

**Surface Water Management** Flood risk was mitigated by upgrading surface drainage, including:

- New gullies, downpipes, and outlets across the podium.
- Perimeter ACO channels to protect external walls.

These measures support resilience to extreme weather and ensure year-round occupant comfort.

**Adaptability** Adaptability was a core consideration in the DCEE HQ refurbishment, with design strategies put in place to accommodate future changes in workplace needs, technology, and mobility infrastructure. Key features include:

- **Flexible Infrastructure:** Raised access floors and perimeter ceiling zones were introduced to allow concealed services to be easily accessed, adapted, or expanded. Underfloor services have been laid out to accommodate higher workstation densities—for example, enabling pods of four desks to expand to six without reconfiguration of services.
- **Multipurpose Spaces:** Break-out areas are service-ready for conversion into open-plan workspaces if needed, while cellular offices and meeting rooms follow a standardised modular layout, making them easily interchangeable.
- **Scalable EV Infrastructure:** While 10 electric vehicle charging points were installed, capacity has been built in for an additional 40 chargers, future-proofing the building for evolving transport needs.
- **Reconfigurable Facilities:** The basement-level meeting room can be subdivided using folding partitions, and the auditorium features removable seating, allowing it to be adapted for circular table conference formats or alternative layouts.
- These interventions ensure the building can respond to changing patterns of occupancy, work modes, and environmental targets—supporting long-term value and resilience.

**Cost and Value** During the design phase, a Cost Effectiveness Analysis was undertaken to evaluate a range of accommodation strategies for the Department of the Climate, Energy and Environment (DCEE). This process informed the selection of the most financially sustainable solution, balancing environmental goals with long-term operational needs.

Prior to construction, a final Business Case was completed, demonstrating that the project offered value for money to the Irish taxpayer. The reuse of the existing structure and materials, combined with significant reductions in operational energy and maintenance costs, ensured that the refurbishment delivered both fiscal efficiency and long-term public value.

**User Experience and Operational Performance** Feedback from former and current users highlights significant improvements in comfort, daylight, views, and atmosphere, with the refurbishment receiving external recognition through multiple architectural awards.

Post-occupancy performance is being closely monitored to assess the long-term success of the refurbishment. A life cycle analysis is currently underway to evaluate the project’s whole-life carbon performance, while the OPW continues to liaise with the client (DCEE) to measure and analyse operational energy use.

This monitoring builds on the project’s design intent, which targeted significant reductions in energy demand and fossil fuel dependency. Systems such as CO<sub>2</sub>-linked BMS ventilation controls, daylight-responsive lighting, and local override functionality were all designed to support user comfort and efficient operation, making post-occupancy data critical for validating performance against these targets.

#### **Project Enablers**

The successful delivery of the DCEE HQ refurbishment was enabled by a high level of institutional experience, strategic foresight, and interdepartmental coordination. The OPW’s longstanding expertise in public sector project delivery, coupled with its mature project management processes, ensured robust governance and quality assurance throughout. The Steering Group and Project Team, chaired by OPW representatives, provided consistent leadership, while the externally procured design team was selected through a quality-and-experience-based assessment. Transdisciplinary collaboration, particularly across architectural, engineering, and environmental disciplines, was critical in addressing the project’s technical challenges and delivering on ambitious sustainability targets. Early and continuous engagement with DCEE and specialist user groups ensured that evolving functional needs were fully integrated, while regular communication with local stakeholders helped to maintain support and transparency throughout the works.

#### **Summary**

The refurbishment of Tom Johnson House, now serving as the headquarters of Ireland’s Department of the DCEE, is a landmark example of low-carbon public architecture through adaptive reuse. Led by the Office of Public Works (OPW), the project retained the essential structure and 1970s character of the original building while radically improving its performance and usability. Achieving an 81% reduction in primary energy use and targeting some of the lowest operational energy figures for a government office globally, the project combines architectural, technical, and environmental innovation. High levels of comfort, accessibility, and adaptability support inclusive and future-ready working environments. Enhanced biodiversity, active travel infrastructure, and responsive ventilation systems reinforce the building’s resilience to climate change. Through rigorous design, procurement, and stakeholder engagement, the project delivers exceptional value to the public sector and serves as a scalable model for sustainable renovation across Europe.

#### **Relevant EU and related ACE policies:**

The DCEE HQ refurbishment exemplifies several core ACE policy messages and supports the implementation of the EPBD recast and EU Green Deal objectives. By prioritising adaptive reuse over new construction, the project demonstrates Whole Life Carbon (WLC) thinking, achieving dramatic operational energy reductions while retaining the existing structure—fully aligned with ACE’s call to prioritise circularity and carbon-conscious renovation. It integrates Level(s) indicators, including operational energy, comfort, indoor environmental quality, and materials circularity, showcasing how public buildings can lead by example in advancing sustainable design and procurement. The use of biobased and recyclable materials, along with rigorous post-occupancy monitoring, supports ACE’s emphasis on evidence-based policymaking and performance-driven outcomes. Importantly, the project reflects the principles of Baukultur through its contextual sensitivity, public realm enhancement, inclusivity, and engagement with end users—realising architectural quality as a public good. As a government-led project, it also illustrates the power of strong governance and transdisciplinary collaboration, reinforcing ACE’s call for capacity-building across Member States to deliver high-quality, low-carbon buildings at scale.

### ACE Recommendations

The refurbishment of Tom Johnson House offers a valuable testbed for ACE’s policy positions—particularly on adaptive reuse, architectural quality, and the delivery of high-performance buildings in the public sector. The project exemplifies an integrated application of Level(s), NEB principles, and circular design, while also being exceptionally well documented. It therefore warrants continued monitoring and deeper study.

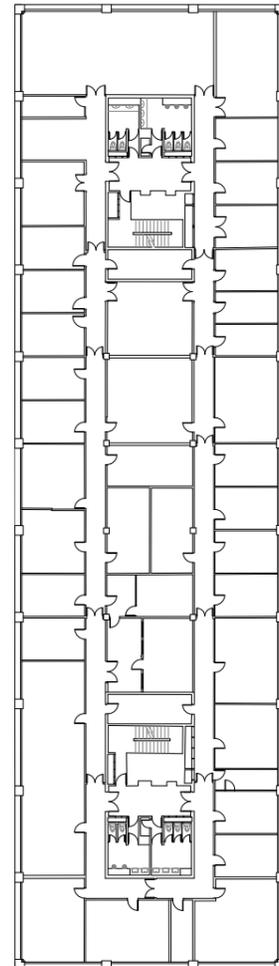
A key recommendation is to build on the project’s existing momentum and documentation by supporting a comprehensive post-occupancy evaluation (POE). Given the breadth of ambition—environmental, economic, and social—POE could generate meaningful insights into:

- 1 Actual operational energy performance, including usability of BMS controls, and metering;
- 2 Occupant satisfaction with comfort conditions and usability including autonomy over environmental conditions
- 3 Assessing overheating risks in future climate scenarios as well as assessing actual overheating days;
- 4 Usability of systems, equipment operability, and maintenance demands;
- 5 Acoustic comfort and indoor environmental quality in use;
- 6 Impact of architectural quality, spatial legibility, and biophilic features on user well-being and satisfaction;
- 7 The effectiveness of inclusive design measures and user agency in creating equitable environments.

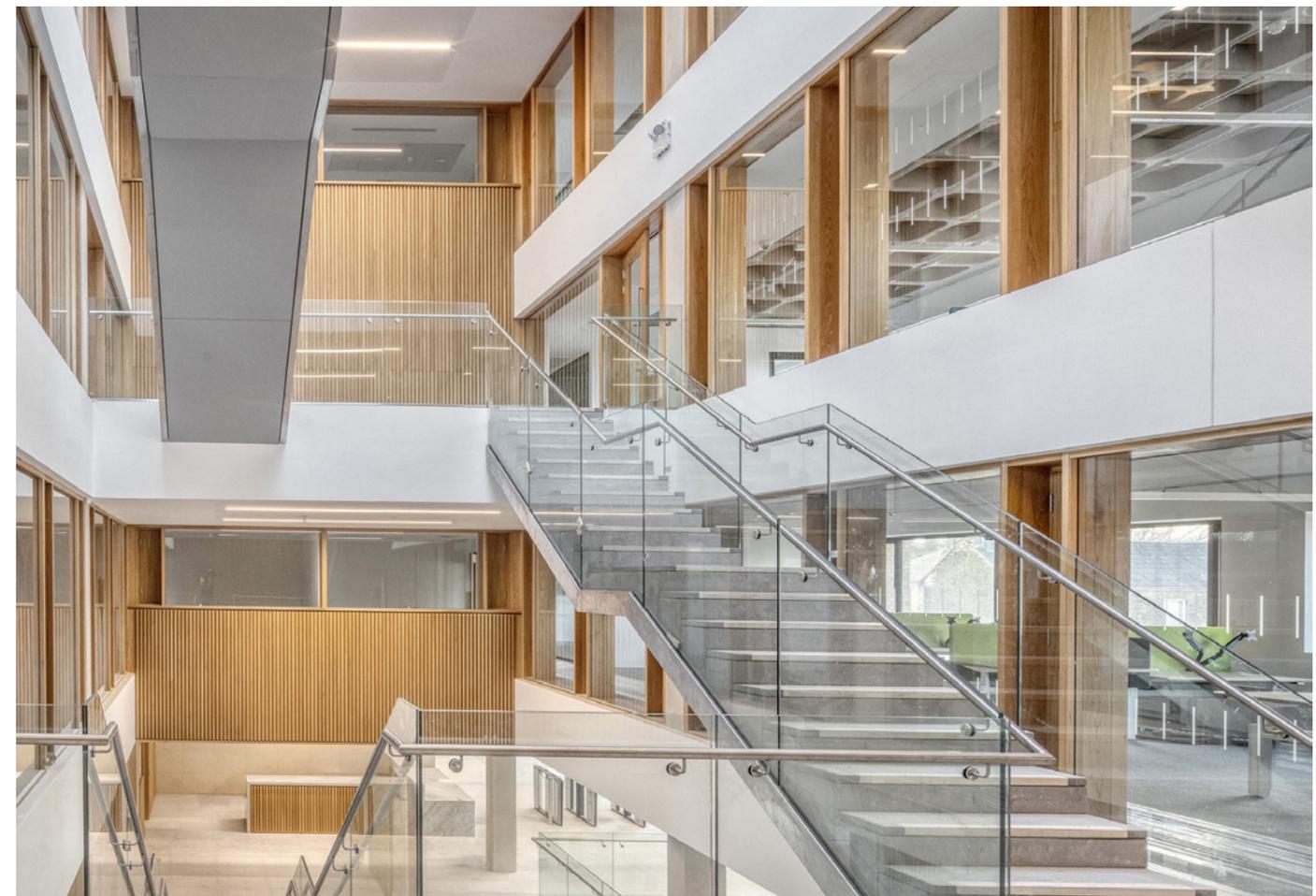
Although some early feedback and energy monitoring is in place, a retrospective study, particularly one examining public realm improvements and sense of place, could yield valuable data for national policy and inform the wider State Estate retrofit programme under Ireland’s Climate Action Plan.

Given the leadership role of the DCEE, there is a strong case for engaging DCEE as a partner in a future EU-funded study that could analyse the impacts of architectural quality across the lifecycle of public buildings.

Finally, the project reveals an opportunity for streamlining future EU-wide data collection on best practice retrofits. With so much detailed information available, a more concise, harmonised project reporting framework could aid cross-comparison, support evidence-based policymaking, and reinforce ACE’s advocacy for performance-led, quality-focused design across Member States.



DCEE  
OPW Architectural Services (plans)  
Dan Costelloe / Paul Tierney (photos)



# Living in the Church Student Accommodation in Gerhard Uhlhornkriche

Case Study 06 Uhlhornkriche Pfitzner Moorkens Hanover, Germany



## Project Overview

The conversion of the listed Gerhard Uhlhornkirche in Hanover has given a second life to a significant 1960s urban landmark, originally designed by Richard Riemerschmid and deconsecrated in 2012. In 2015, the contract for purchase and conversion was awarded to project developers aiming to create much-needed student housing within the sacred structure's closed architectural system, which is an unusual and ambitious form of adaptive reuse.

Today, the building accommodates a community of up to 34 residents in 27 individual units ranging from 13.5 to 46.5 m<sup>2</sup>, arranged within a newly constructed, thermally insulated structure inserted into the original shell. An additional 500 m<sup>2</sup> is dedicated to communal use, fostering social interaction and shared living. Below the former church hall, four subsidised flats with independent access from the Leinepromenade enhance the building's social mix and activation at street level.

Externally, the building's dramatic and distinctive form has been respectfully retained to showcase a 4-metre-high base of repetitive prefabricated concrete elements, a footprint of 23 x 40 m, and a copper roof rising 21 metres. The base cantilevers towards the adjacent riverside, now hosting four private apartments, accessed via a separate entrance.

Internally, architectural interventions articulate the building's layered history: the former organ loft has become a communal kitchen; cut-outs in the parapet and façade slits trace the insertion of new passageways and light openings; and original elements, such as the cross and altar remain, now desecrated but discreetly preserved.

<b>Case Study Author</b>	Pfitzner Moorkens Architekten PartG mbB / Jury for the Lower Saxony State Prize for Architecture 2020—Edited by Judit Kimpian
<b>Award</b>	Shortlisted for the Lower Saxony State Prize for Architecture 2020: Housing— Forward-looking, climate-friendly! Nominee for the Mies van der Rohe Award 2021.
<b>Location</b>	Hanover, Germany
<b>Client</b>	Dr. Meinhof und Felsmann GBS GmbH & Co. KG, Hannover
<b>Architect</b>	Pfitzner Moorkens Architekten PartG mbB
<b>Site Management</b>	Site management: Architekt Dipl.-Ing. Sven Meinhof
<b>Completion Date</b>	September 2019
<b>Building Type</b>	Heritage Retrofit, Student accommodation
<b>Area</b>	n/a approximately 1,750 m <sup>2</sup>
<b>Cost</b>	~€3M €1,715/m <sup>2</sup>

## Project Ambition, Building Type, Location

The design follows a “house within a house” principle, with two floors of student rooms inserted as freestanding volumes into the nave. These units are insulated and soundproofed, while the surrounding church envelope serves as a weather buffer and transitional space. The recessed ground-floor façades of the inserted cubes provide private loggias, subtly linking old and new. The result is a respectful, inventive, and cost-effective transformation that preserves the building's symbolic power while accommodating modern living.

## NEB and Baukultur ambitions

**Context** The project exemplifies adaptive reuse with high cultural sensitivity. Located in Hanover's Linden district, the former Protestant Gerhard Uhlhornkirche now provides student accommodation. Its transformation, carried out in consultation with the former church community, is considered a benchmark for sensitive reuse in Germany. The project successfully preserves a culturally significant urban landmark while addressing the urgent need for housing. Alongside 34 student units, four subsidised flats contribute to a socially diverse residential mix and bring renewed vibrancy to the neighbourhood.

**Sense of Space / Aesthetics** The communal nature of student life echoes the building's former function as a place of assembly and reflection. Sensitive reuse is tangible throughout. Where the organ once resounded, a communal kitchen now facilitates shared experience; where once pews were arranged, now doors lead to individual living quarters. What could be preserved was retained, including the old church pews, now serving as

seating around a twelve-metre-long oak table. Christian symbols, such as the cross and the altar, remain present in the building: no longer consecrated, but still respectfully integrated into the new setting. This conversion, undertaken in close dialogue with the former church community, exemplifies a rare and commendable sensitivity in architectural reuse within Germany.

Thirty-four student units and four subsidised flats are accommodated within the sacred shell, successfully addressing contemporary housing needs while preserving a symbolic piece of urban identity. The spatial arrangement is simple and modest, subtly referencing the building's past. Ample communal areas enhance the sense of collectivity.

The building's sacred character endures in its soaring roof form and quiet interior, where light filtered through stained glass windows animates white corridor walls with soft colour, sustaining a meditative quality in everyday life.

## Sustainable Architecture and Level(s)

**Operational Energy Use, Comfort, Health, and Indoor Environmental Quality** The conversion carefully navigated competing demands of building physics, heritage protection, fire safety, and structural integrity. The listed outer envelope was preserved with only minor interventions, such as new skylights for light and ventilation and strategic façade openings for loggias, and internal staircases.

Applying thermal insulation to the original fabric was incompatible with conservation constraints, so the architects adopted a “house within a house” approach: a two-storey, thermally insulated and acoustically separated structure was inserted into the church shell for the cubical

student accommodation, preserving the outer form while achieving contemporary standards of comfort and performance.

**Materials and Circularity** The 17-metre-high internal roof space is defined by untreated timber cladding, set within the robust 7-axis concrete skeleton of the original church structure. Surrounding this is a flat roof, while 7-metre-high stained glass windows animate the pitched roof above, casting colour across interior surfaces. The integration of original and new elements reinforces the distinct geometry of the 1960s design while extending its functional lifespan. Minimalist volumes and inset loggias lend architectural clarity and enhance the legibility of both eras. Durable, economical interior materials clearly differentiate the new from the preserved, creating a layered and respectful architectural narrative.

#### Summary

This sensitive and imaginative transformation illustrates how heritage buildings can be adapted to meet contemporary needs at a lower cost than new-build construction. By successfully combining new interventions with the original structure, the project enhances both the functional use and cultural dignity of the building. The Gerhard Uhlhornkirche conversion merges monument preservation, social value, and environmental responsibility, offering a compelling model of respectful and forward-looking architectural reuse.

#### Relevant EU and related ACE policies

This project aligns with several key ACE and EU policy themes, particularly around the adaptive reuse of buildings, cultural heritage, and sustainable urban regeneration. The conversion of the Gerhard Uhlhornkirche reflects ACE's call to prioritise renovation over demolition, making efficient use of embodied carbon while conserving place-defining architecture. It demonstrates the principles of the EU Green Deal and supports the goals of the EPBD recast through innovative retrofit strategies.

Despite limitations in thermal envelope upgrades due to heritage constraints, the “house within a house” concept offers an exemplary model for integrating energy efficiency in protected structures—contributing to the EU's broader ambitions on WLC and circularity. The project also speaks to the NEB values of beauty,

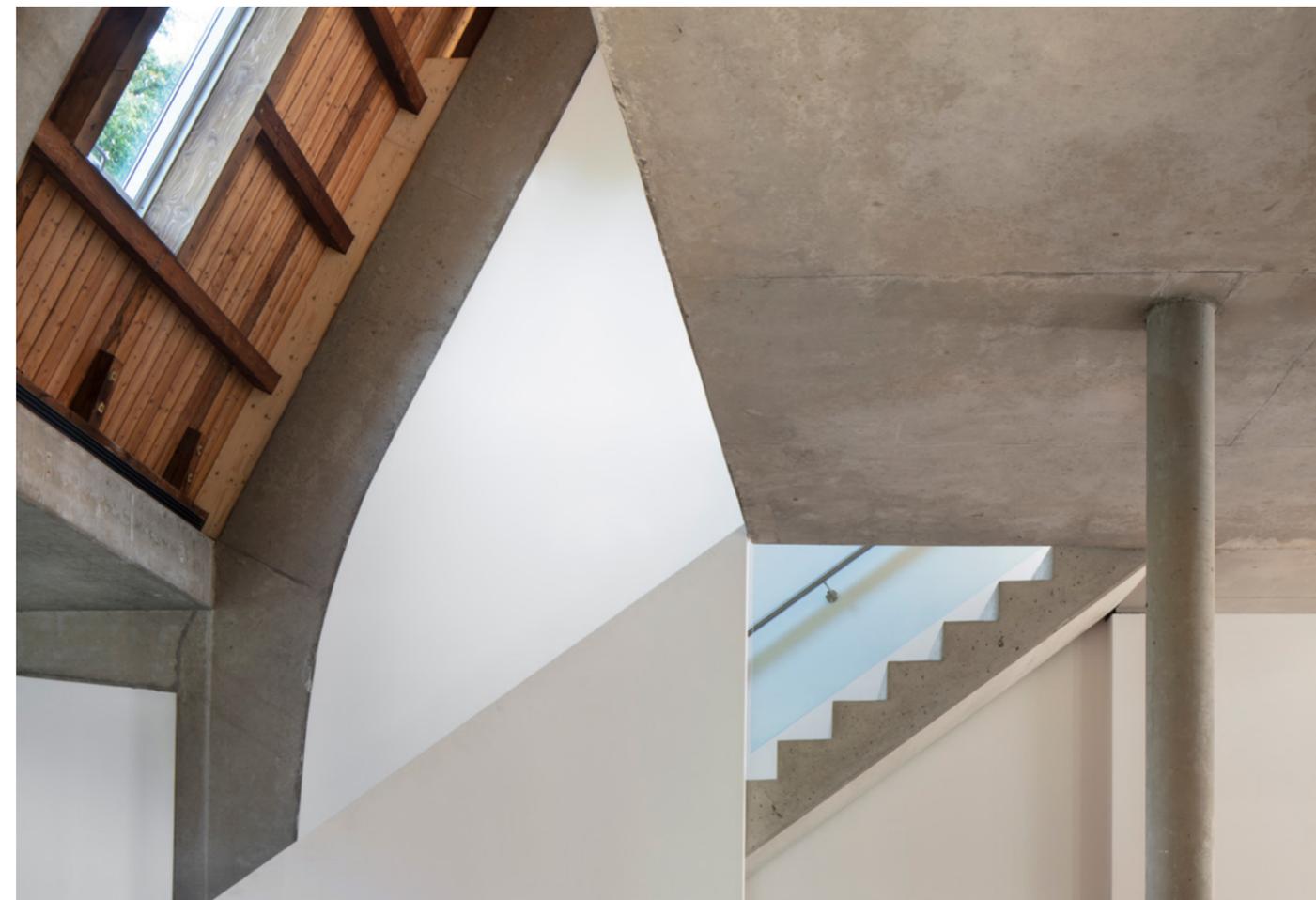
sustainability, and inclusion by creating student and social housing in a contextually sensitive way that respects the spiritual and social memory of the site.

It illustrates how architectural design can bridge climate, cultural, and housing policy, delivering multiple co-benefits in line with ACE advocacy for quality-driven, socially aware public architecture.

While the project's design strategy is exemplary, limited performance data, particularly on operational energy use and post-occupancy outcomes, highlight the need for more consistent documentation in heritage retrofit projects to support replication and policy learning. This is an area of policy that ACE has consistently advocated for during the past decade.

#### ACE Recommendations

- 1 Support for Retrofit in Heritage Contexts: EU and national frameworks should more explicitly support innovative retrofit solutions in listed buildings, including performance-based assessment tools that accommodate heritage constraints.
- 2 Post-Occupancy Research: The project would benefit from a post-occupancy study to evaluate operational energy use, thermal comfort, and user satisfaction, especially in the uninsulated intermediate spaces. This would offer valuable insight into the long-term viability of the “house within a house” model.
- 3 Funding Instruments for Hybrid Housing Typologies: More flexible funding mechanisms are needed to support socially mixed housing models (e.g. student and subsidised units) in adaptive reuse schemes, especially where heritage assets are involved.
- 4 Recognition of Place-Based Social Value: The project underscores the cultural and social value of preserving symbolic urban landmarks. Baukultur principles should be more strongly embedded in EU policy instruments to reward such outcomes.
- 5 Streamlined Documentation Requirements: Given the often-fragmented information in smaller or privately developed retrofit projects, simplified templates aligned with Level(s) could support better data collection and encourage more case study sharing across Europe. At the minimum, operational energy use and embodied carbon data, alongside accurate cost information would be valuable to support the recognition of what is possible to achieve with an architectural approach.



# DOT Sofia



## Project Overview

DOT Sofia is a contemporary mixed-use cultural landmark located in the historic heart of Sofia, combining urban residence, hospitality, art and gastronomy on a compact urban site. The architectural composition consists of two interlocking volumes: a grounded base aligned with the shield wall of an adjacent structure to the north, and a slender vertical element discreetly set back. This massing strategy responds sensitively to its urban neighbours while maximising daylight and passive design potential.

Architecturally and programmatically, DOT Sofia serves as a catalyst for cultural regeneration. It introduces a hybrid programme into a formerly neglected market neighbourhood, long known for its cultural diversity but under-appreciated built fabric. On a modest plot, the project delivers a contemporary art gallery, multi-functional event space, signature restaurant, aparthotel and rooftop garden—all expressed through distinctive architecture that contributes to the neighbourhood's urban revival.

A Corten steel façade evokes the fading materiality of Sofia's industrial past. Its shifting appearance, hiding and revealing the building behind through perforated shutters, animates the streetscape with shimmering light and shadow. These movable elements enable natural ventilation and dynamic shading while maintaining low maintenance. Controlled via an automated weather station, they merge sustainable performance with an experiential user interface.

Inside, bespoke units accommodate both short- and long-term stays, culminating in a panoramic 360° penthouse. The interior is characterised by minimalist design, natural materials and finely crafted furnishings created in collaboration with local designers and makers. Together, these elements create a space where architecture, art, and urban life converge.

<b>Project Website</b>	https://dotsofia.com/en
<b>Case Study Author</b>	Nina Tancheva, Board Member, Chamber of Architects, Bulgaria, edited by Judit Kimpian
<b>Award</b>	Winner / Bulgarian Architectural Awards 2023—Grand prize / Winner / Building of the Year
	Category Green Building
<b>Location</b>	Sofia
<b>Client</b>	Urban Stay EOOD
<b>Architect</b>	Vyara Zhelyazkova and Geogi Katov—I/O architects, ioarchitects.com
<b>Completion Date</b>	2023
<b>Building Type</b>	New building, Mixed use including urban residence, restaurant, aparthotel, art and culture hall for exhibitions and events, garden and roof terrace
<b>Area</b>	1576 m <sup>2</sup>
<b>Construction Cost</b>	Not available
<b>Additional funding</b>	Private Finance
<b>Level(s) indicators</b>	Not specified

## NEB and Baukultur Ambitions

**Context / Sense of Space / Aesthetics / Public Realm Regeneration / Cultural Impact** DOT Sofia exemplifies the principles of the New European Bauhaus by transforming a neglected urban quarter into a vibrant, inclusive cultural destination. Rooted in the layered history of Sofia's Women's Market district—long overlooked despite its historic richness—the project re-interprets the material language of the area through rusted steel cladding and articulated shutters that recall the ephemeral pavilions of the past.

The building's hybrid programme fuses art, hospitality, gastronomy and living into one architectural whole. The in-house gallery regularly hosts contemporary exhibitions themed around transformation and human perception, including *Transformation Always Takes Time and Energy* and *At the Level of the Eyes*. These events attract diverse audiences across generations, fostering dialogue and shared cultural experiences.

Acting as a civic anchor, DOT Sofia creates space for encounter and expression, celebrating contemporary Bulgarian creativity through food, art and design. Its quiet night-time presence and green rooftop terrace reflect an environmental awareness that respects its residential context. Meanwhile, the integration of public-facing and private functions supports day-to-night activation of the site.

The project embodies NEB ambitions such as *Activate, Connect, Integrate and Include, Consolidate, Transform*. Far from being just a new building, DOT Sofia is a thoughtful intervention in the city's cultural landscape—demonstrating how architecture can mediate between memory and modernity and deliver meaningful value for its community.

## Sustainable Architecture and Level(s)

**Global Warming Potential, Operational Energy Use** DOT Sofia integrates a range of innovative energy systems and passive design features, earning recognition as a leading green building project in Bulgaria. At the heart of its energy strategy is a geothermal heating and cooling system with seven vertical earth-water wells, each 100 metres deep. These support a high-efficiency Thermia Mega-M heat pump that supplies space heating, cooling, and domestic hot water throughout the year.

The system operates through a dual-circuit configuration. The external loop, filled with a 30% ethylene glycol solution, exchanges energy with the ground. The internal loop circulates water throughout the building's systems. Low-temperature underfloor heating distributes heat efficiently, while ceiling cooling is achieved through REHAU pipe coils embedded in the structural slab.

A mechanical ventilation system with heat recovery and acoustic dampening ensures fresh air and comfort in the restaurant without undermining energy performance. These systems are visibly integrated with architectural details such as exposed concrete ceilings, heated terrace siphons, and a car lift to the underground garage. These features enhance both the efficiency and experience of the building. A KNX-based automation system manages lighting, ventilation, and access, making performance optimisation intuitive and customisable.

In Bulgaria, geothermal systems are rare outside single-family homes. DOT Sofia sets a precedent by applying this technology in a mid-rise urban development, demonstrating the viability of renewable energy at scale. The client's decision to invest in this forward-looking energy solution reflects a long-term commitment to climate responsibility and resilience.

### Comfort, Health, and Indoor Environmental Quality

**Thermal Comfort, Visual and Acoustic Quality, Indoor Air** DOT Sofia ensures a high standard of user comfort through an integrated design approach. Underfloor heating and radiant ceiling cooling, enabled by embedded REHAU pipe coils, create a quiet and stable indoor climate. These systems work with exposed concrete surfaces that support thermal regulation while contributing to the building's minimalist aesthetic.

The KNX-based control system gives users intuitive command over lighting, ventilation and access, allowing guests to tailor indoor conditions to personal preferences. These controls help maintain circadian rhythms and support a healthy indoor microclimate.

Glazed balconies on the third floor are fitted with high-quality WAREMA blinds that provide solar control across inclined glazing. These not only reduce overheating in summer but also enable passive heat gain during cooler seasons.

The building's dynamic façade, composed of perforated Corten steel shutters, creates subtle lighting effects inside while offering both shade and ventilation. These shutters can be operated automatically through a central weather station, ensuring indoor comfort regardless of external conditions.

In the restaurant, a mechanical ventilation system with heat recovery and noise reduction maintains excellent indoor air quality. Environmental impact is considered during building operation, with efforts made to reduce light and noise emissions to protect the surrounding residential area.

### Materials and Circularity

The architects chose robust and low-maintenance materials with a long service life. The ventilated façade is clad in Corten steel with operable shutters, which develop a natural patina over time. This reduces the need for repainting or refinishing and creates a self-protecting surface that evolves with the building's context.

Behind this, solid façade elements are constructed from Wienerberger masonry bricks, known for their thermal mass and durability. These are paired with a Baunit thermal insulation system and fire-resistant FIBRAN stone wool to enhance energy efficiency and fire safety.

Windows are made from laminated wood profiles and triple glazing, manufactured locally to reduce transport emissions and support regional craft industries. Interior finishes are minimal, with a crisp but raw aesthetic, using natural materials and low-tech construction methods to enhance durability and simplify maintenance.

Together, these choices implement the 5Rs: refuse, reduce, repair, reuse and recycle. The emphasis on longevity, efficiency and local sourcing supports a circular approach to resource use and aligns with European sustainability goals.

### User Experience and Operational Performance

Though only recently completed, DOT Sofia is already reshaping its neighbourhood, reportedly provoking admiration and offering a fresh perspective on urban life. The project has been described as "a fabulous exception" within Sofia's fast-changing landscape, distinguished by its striking architecture and layered programme that blends residential spaces, a restaurant rated best in Sofia and a contemporary art gallery.

As noted in Capital newspaper:

"DOT Sofia is one of those complex and interesting concepts that greets by its facade but convinces by its content... It stands distinctly in the challenging and multi-layered urban fabric of the Women's Market."

### Summary

DOT Sofia is the result of a visionary client who brought not only substantial private investment, but also cultural ambition and a long-term commitment to place. Far from a conventional development, the project was conceived as a platform, an "intersection point," in the words of its founder, Pancho Georgiev, for people from Bulgaria and abroad who seek an experience that is both off the beaten track and deeply embedded in the city's cultural fabric.

The building's hybrid programme, blending urban living, art, gastronomy and hospitality, encourages exchange between diverse communities and reactivates a historic neighbourhood through architecture, culture and shared space. This ambition is reflected in the generous public functions of the building, which foster dialogue, creativity, and collective identity.

DOT Sofia is distinguished by its integrated approach to sustainability. From the geothermal energy systems and building automation to the use of durable, locally sourced materials, every aspect has been carefully designed for environmental performance, long-term resilience and user wellbeing. It offers residents and guests not only a high-quality living environment, but a sense of participation in a consciously sustainable and culturally rich urban lifestyle.

Bringing together people and ideas in a setting that is both refined and refreshingly understated, DOT Sofia demonstrates the power of architecture to reconnect place, programme, and community.



DOT Sofia  
I/O Architects (plans)

### Relevant EU and related ACE policies

DOT Sofia illustrates the core principles championed by the New European Bauhaus (NEB), beautiful, sustainable, together, by combining cultural richness with environmental responsibility and inclusive urban regeneration. The project aligns with EU policies on sustainable construction and renovation, particularly the European Green Deal and the Renovation Wave, which advocate for high performance buildings that enhance quality of life and reflect Europe's diverse cultural identities.

Through its integration of geothermal energy systems, smart control, and long-life materials, DOT Sofia anticipates the goals of the EU Taxonomy for Sustainable Activities, which increasingly guide public and private investment towards climate-neutral and socially valuable developments. Although the building is new, it also resonates with the Circular Economy Action Plan, embedding longevity, repairability, and local material use.

From an architectural policy perspective, DOT Sofia speaks directly to the ACE Statement on Achieving Quality in the Built Environment and its emphasis on culture-led transformation, user well-being and contextual design. Its role in re-activating a historic neighbourhood exemplifies the ACE's advocacy for design that contributes to social cohesion, cultural vitality and Baukultur, a living culture of the built environment that values quality, identity, and community engagement.

### ACE Recommendations

#### For ACE Member Organisations:

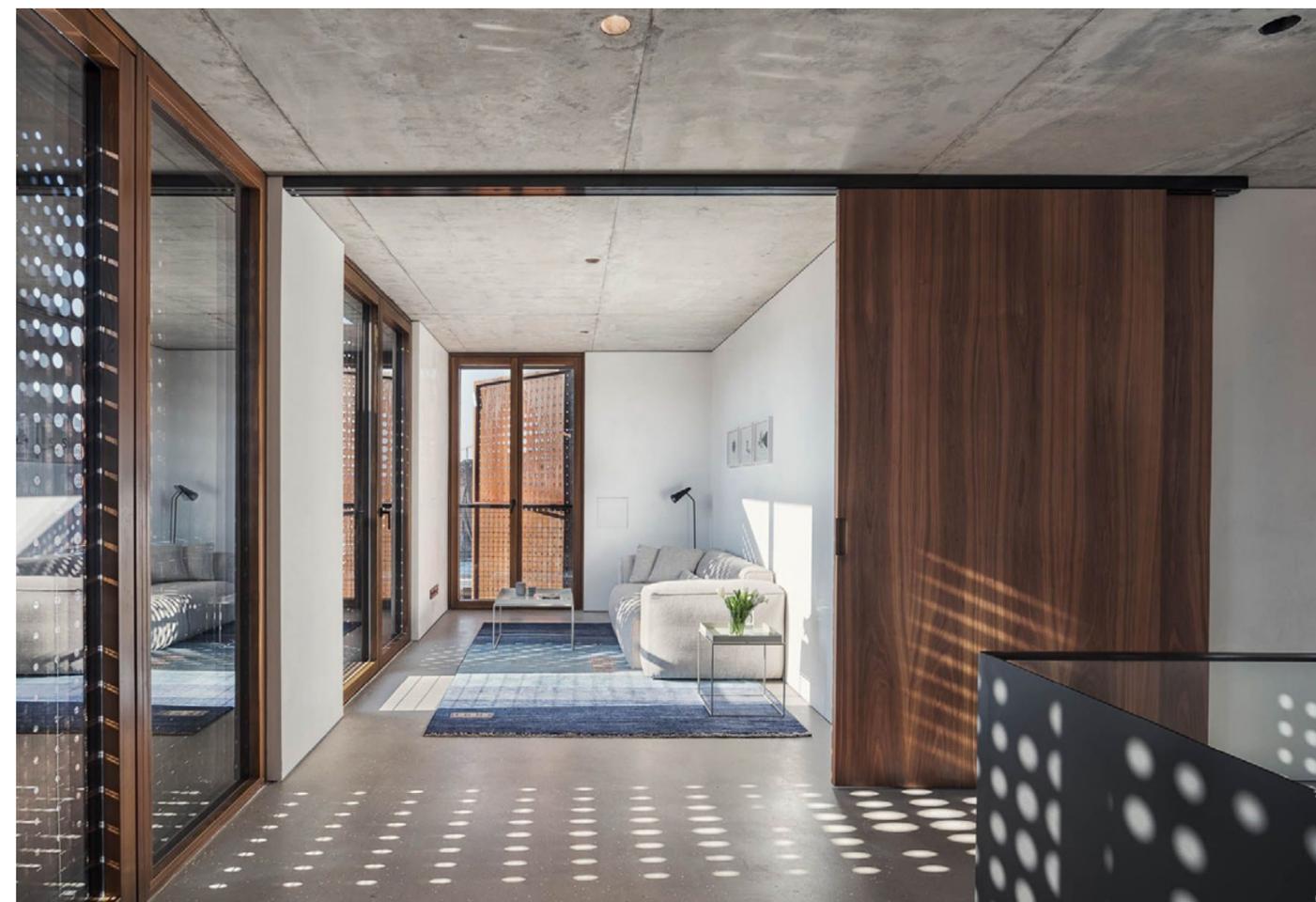
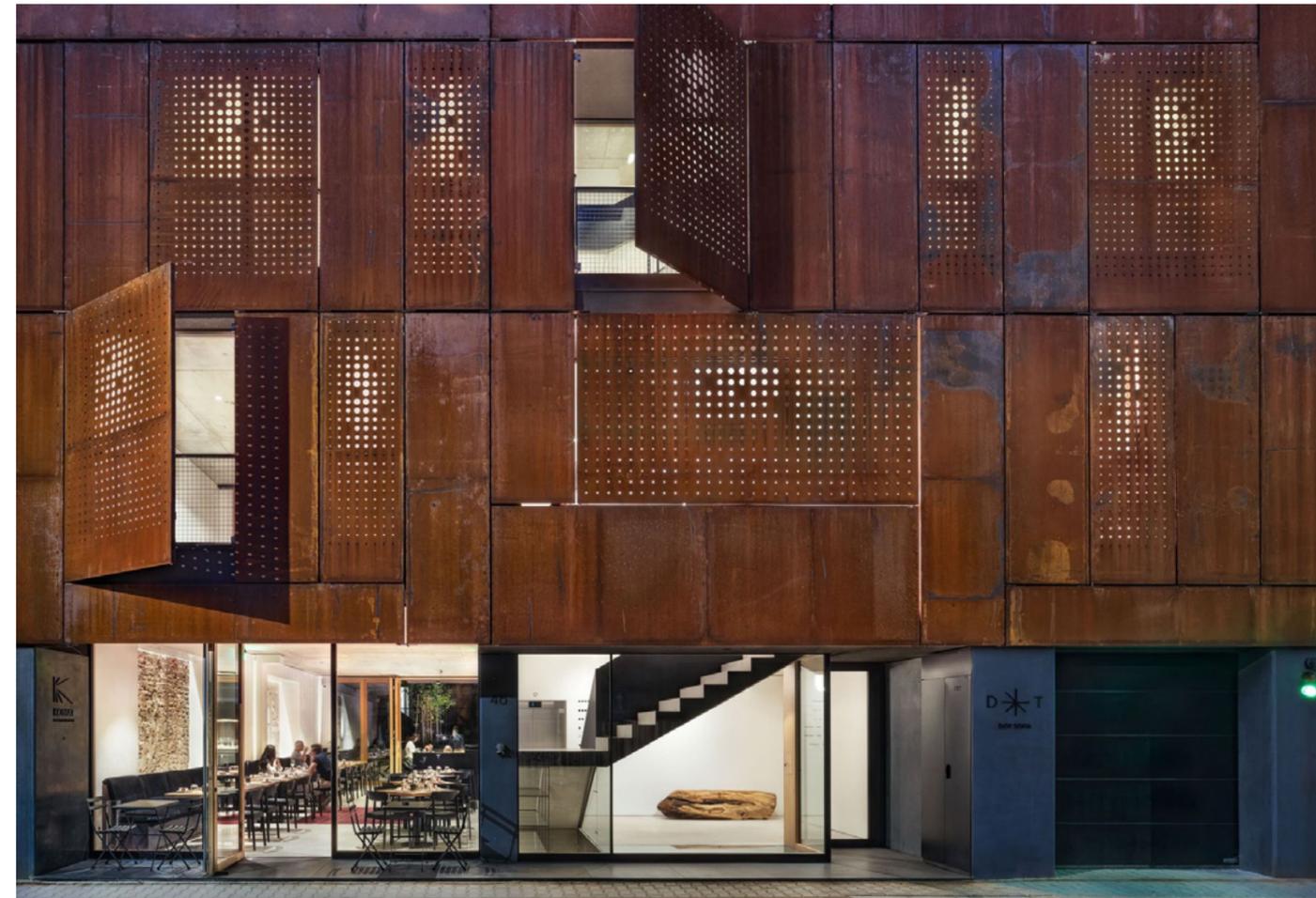
- 1 Promote the use of post-occupancy evaluation (POE) methods to assess both operational performance (e.g. kWh/m<sup>2</sup>/yr, embodied carbon, system effectiveness) and wider urban impact (e.g. changes in property values, amenities, evidence of gentrification or participation). Use the results to demonstrate the wider impact of high-quality architecture and for scaling up the conditions required to enable such projects.
- 2 Require evidence of NEB and Level(s) impacts in architectural awards.
- 3 DOT Sofia as an advocacy case for client education, illustrating the long-term social, cultural and environmental benefits of integrated architectural thinking.

#### For the ACE Board:

- 1 Strengthen policy proposals that support and incentivise clients investing in transformative, mixed-use projects that contribute to local cultural and environmental goals.
- 2 There does not seem to be a standard for verifying NEB ambitions in practice. Support research initiatives that develop such an approach to strengthen the case for approaches that work best.
- 3 Encourage the inclusion of Level(s) and community impact metrics in EU-funded and privately backed architectural initiatives to ascertain if sustainability goals have been met and to be able to build on lessons learned.

#### For EU and National Policymakers:

- 1 Support financial mechanisms that encourage long-term investment in integrated sustainability and cultural value, particularly through design competitions, green finance, and heritage sensitive planning.
- 2 Embed POE requirements in major developments to track real-world impacts on community renewal, affordability, and operational performance. Fund initiatives scaling these up.
- 3 Facilitate knowledge-sharing between visionary clients and public or private developers to enable scaling of best practice.
- 4 DOT Sofia is a rare example of privately led publicly valuable regeneration. Its lessons warrant wider discussion and replication across Europe's evolving urban landscape.



# Pilaitės Gimnazija

Case Study 08 Pilaitės Gimnazija DO ARCHITECTS Vilnius, Lithuania



## Project Overview

**Pilaitės Gimnazija sets a new benchmark for public education buildings in Lithuania. The four-storey school is integrated into the urban block structure of western Vilnius and opens onto a central courtyard, which serves as a unifying civic and social space. The design reflects a “classrooms without walls” approach, emphasising openness, transparency and inclusivity in both its spatial organisation and material palette. Key functions—including sports, library, assembly and dining—are placed around the courtyard to foster interaction, while public-facing features such as outdoor classrooms and a roof terrace extend the school’s impact beyond its students**

<b>Case Study Author</b>	Ruta Leitanite, Board Member, Lithuanian Chamber of Architects
<b>Award</b>	Winner of the 2020 open design competition
<b>Location</b>	Vilnius, Lithuania
<b>Client</b>	Vilnius City Municipality
<b>Architect</b>	DO ARCHITECTS
<b>Completion Date</b>	2022
<b>Building Type</b>	Public secondary school (new build)
<b>Area</b>	~11,000 m <sup>2</sup>
<b>Funding</b>	Public
<b>Construction</b>	Prefabricated concrete
<b>Post-occupancy data</b>	Not available—Flag for follow-up

## NEB and Baukultur Ambitions

The project reflects NEB values by integrating high-quality architecture with social and educational impact. Located in Vilnius’ rapidly developing Pilaitė district, the school acts as a civic anchor and gathering place. Its design prioritises openness, daylight, transparency and natural materials, fostering a sense of calm and curiosity. Importantly, the project was co-developed with the neighbouring school, students and the wider Pilaitė community, creating a strong sense of ownership and ensuring the building genuinely serves its users. The generous atrium, learning terraces and communal spaces promote interaction and flexibility, while the architectural language aligns with local identity and context. The result is a socially rooted, emotionally resonant educational building that demonstrates how architecture can create inclusive, beautiful public value.

## Sustainable Architecture and Level(s)

While the project does not provide quantitative feedback data, several Level(s) indicators are addressed indirectly through the design strategy. Resource efficiency is pursued through a compact layout, the use of durable and natural materials (including extensive timber) and passive design features that maximise daylight and reduce energy demand. The interior’s exposed structures and minimal finishes support a circular approach by simplifying future adaptation and reducing lifecycle impacts. Indoor environmental quality is prioritised through generous daylighting, acoustic comfort, and visual connections to nature. The building’s role as a long-term educational and civic facility also contributes to functional resilience and sustainable land use.

## Summary—Key Distinctions

What distinguishes the Pilaitė Gymnasium is its seamless fusion of educational purpose, architectural clarity and community co-creation. This is not just a school but a *social and spatial catalyst* in a fast-growing urban district. Its *participatory design process*, involving students, educators, the neighbouring school and residents, ensures that the building reflects genuine local needs and aspirations, rare for public educational buildings.

Architecturally—it combines a *minimalist Nordic sensibility* with a warm material palette, expressed through *natural light, timber interiors* and transparent spatial organisation. These design choices foster emotional wellbeing and a sense of belonging, aligning with the NEB’s ambition for spaces that are beautiful, sustainable, and inclusive.

Its role as a *multi-purpose civic centre*, hosting learning, gathering, performance and play, makes it a keystone for community life. At a time when many schools are inward-facing or functionally constrained, Pilaitė Gymnasium opens outward, with its *atrium and terraces acting as democratic spaces* for the wider neighbourhood.

In short, it’s a *community school in the truest sense*, combining architectural quality with social value through a thoughtfully localised, human-centred process.

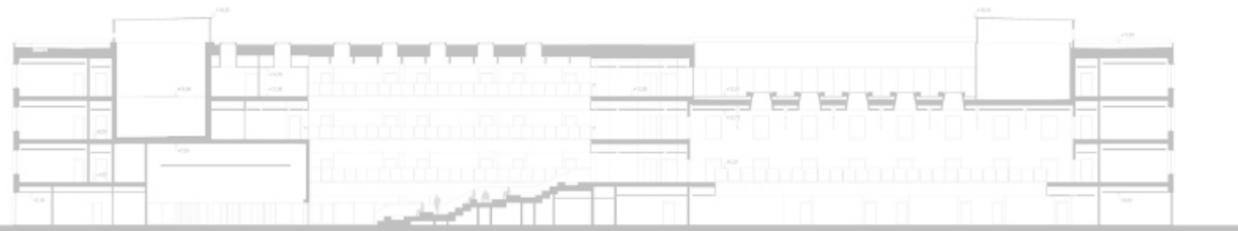
### Relevant EU and ACE Policies

Pilaitės Gimnazija contributes to EU and ACE objectives on sustainable public procurement, inclusive learning environments and child-centred design. It supports social cohesion in a growing suburban district and offers an example of how architectural competitions can drive civic innovation. It also echoes the NEB focus on participatory design and integration of public realm and education.

### ACE Recommendations

A key recommendation is to build on the project's existing momentum and documentation by supporting a comprehensive post-occupancy evaluation (POE). Given the breadth of ambition—environmental, economic, and social—POE could generate meaningful insights into:

- 1 For Member Organisations: Encourage more data collection from educational buildings post-occupancy to strengthen the evidence base for social impact and sustainability.
- 2 For the ACE Board: Promote good practice from competition-led public architecture across Europe; highlight this project as a replicable model.
- 3 For Policymakers: Include design quality criteria in school procurement processes and support long-term monitoring to evaluate health, energy and community outcomes



Pilaitės Gimnazija  
Norbert Tukaj (photos)  
DO ARCHITECTS (plans)



# Rumpiškė Regeneration



## Project Overview

Rumpiškė is a post-war residential district in Klaipėda, originally planned with integrated public spaces, local services and social infrastructure. Over time, it experienced decades of neglect and decline. A public tender initiated by the city led to a regeneration vision developed by PUPA, covering everything from streetscapes, courtyards and parking to potential housing renovation and extensions. This vision won public support and was formally adopted in 2015. A stepwise transformation began in 2021, encompassing public parks, squares and, crucially, housing upgrades initiated voluntarily by residents.

<b>Location</b>	Klaipėda, Lithuania
<b>Implementation</b>	Urban vision adopted 2015; regeneration ongoing since 2021
<b>Lead Architect</b>	Urbanism studio PUPA (Urban vision and public space design)
<b>Other Contributors</b>	City of Klaipėda (public spaces); individual housing associations (building retrofits)
<b>Client</b>	City of Klaipėda (public spaces); individual housing associations (building retrofits)
<b>Additional finance</b>	EU funding

## NEB and Baukultur Ambitions

The project embodies NEB ideals by enhancing quality of life through design, promoting participatory regeneration and reactivating neglected modernist housing stock with community involvement. PUPA's urban vision was developed through workshops, presentations, and on-site engagement, giving residents a voice in the future of their neighbourhood. The transformation of Oak Park and Vaidila Square as part of the same vision reinforces a sense of shared civic identity and revitalises the public realm as a catalyst for wider change.

## Sustainable Architecture and Level(s)

While no detailed Level(s) performance data is available, the regeneration demonstrates alignment with core principles such as long-term resource efficiency, social value and climate adaptation. Improvements to green infrastructure, pedestrian mobility and public amenities reduce urban heat effects and support healthier lifestyles. The project showcases the indirect leverage of EU funds to spark sustainable urban renewal, particularly when community-led building retrofits follow high-quality public investment.

## Summary—Key Distinctions

What sets the Rumpiškė regeneration apart is the way a single, well-articulated urban vision seeded a ripple effect of improvement. Led by the same architectural team throughout, the project demonstrates how upgrading public space can build trust, attract further investment and empower residents to retrofit their own homes—effectively reversing the logic of decline through design. It is a model of low-cost, high-impact urban transformation with replicable lessons for cities across Europe.

### Relevant EU and ACE Policies and Recommendations

The project supports EU cohesion policy goals by tackling urban decline, encouraging local participation, and demonstrating value-added use of regional funding. It reflects ACE's policy positions on the role of integrated design quality and long-term planning in driving resilient neighbourhoods. It also highlights the importance of professional continuity—from vision to implementation—in delivering urban transformation.

### ACE Recommendations

- 1 Recognise the importance of continuity in professional authorship from urban vision to implementation.
- 2 Promote architectural competitions for public realm interventions as a means of catalysing wider regeneration.
- 3 Encourage EU programmes to support integrated neighbourhood approaches that stimulate voluntary building renovation through public space improvement.



Rumpišké Regeneration  
Norbert Tukaj (photos)  
Urbanism Studio PUPA (plans)



# Bokšto Skveras / Tower Square

Case Study 10 Bokšto Skveras Studio Seilern Vilnius, Lithuania 10



## Project Overview

Located in Vilnius Old Town, a UNESCO World Heritage site, Bokšto Skveras sits on one of the city's oldest streets. Once a hospital and later a clinic, the site had fallen into disrepair by the late 20th century. The redevelopment—led by a visionary client planning to house their own office alongside other uses—transformed the site into a mixed-use quarter featuring a restaurant, gallery, event space, offices and wellness centre.

A combination of restoration, reconstruction and sensitive new-build interventions opened a previously closed urban block, reconnecting it with the surrounding city. The project revived the inner courtyard as a public destination and example of successful heritage-led regeneration. Complex archaeological investigations ran in parallel with design and construction over a 13-year period.

Pedestrian and cycle-friendly access, EV infrastructure, and flexible uses support a 24/7 programme. The client's insistence on uncompromising quality, along with early team assembly and a collaborative planning process, enabled a level of craftsmanship and integration rare in urban redevelopments. The project has since influenced municipal policy, including new mandates for architectural competitions in large-scale developments.

<b>Case Study Author</b>	Martynas Mankus, edited by Judit Kimpian
<b>Award</b>	Lithuanian Union of Architects 2017–2018; National Architecture Awards 2024, Winner; Organizer—Ministry of Environment
<b>Location</b>	Vilnius, Lithuania
<b>Completion Date</b>	2022
<b>Client</b>	Private
<b>Architect</b>	Studio Seilern Architects Ltd.
<b>Building type</b>	Retrofit; Offices, event space, residential accommodation, health club, SPA, restaurant and a bar
<b>Area:</b>	3,265 m <sup>2</sup>
<b>Construction Cost</b>	€25M & 1,885 €/m <sup>2</sup>
<b>Level(s) indicators</b>	Energy use 77.83 / 131.25 / 169.87 kWh/m <sup>2</sup> /year respectively

## NEB and Baukultur Ambitions

Bokšto Skveras is a leading example of how NEB and Baukultur values can be embedded into a sensitive heritage context. Situated in Vilnius Old Town, the project's surroundings demanded the highest regard for cultural continuity, quality of place, and public value.

Before construction, the client commissioned one of the most extensive archaeological investigations ever undertaken in the city centre. These findings informed not only the restoration but also the integration of new elements. The spatial structure of the former hospital complex was meticulously reconstructed, including architectural features such as a small tower that had long since disappeared.

New additions were handled with restraint and clarity. Subtle contemporary interventions, often hidden underground or embedded within the sloping terrain, preserve the historic silhouette while clearly signalling the new. A mirrored steel stair tower and a glass attic roof with metal louvres offer striking contrasts that maintain the visual dialogue between past and present.

The landscape strategy places a strong emphasis on biodiversity and sensory experience. The publicly accessible courtyard has been planted as a series of ecological zones tailored to different uses, from residential spaces to the spa garden. Native species such as hawthorn, violets and medlar trees mix with carefully selected ornamentals to create layered, seasonal interest and a woodland-like quality in the heart of the city.

Preservation extended to Vilnius Old Town's oldest linden tree, around which the courtyard was planned. Accessibility was also prioritised across the complex, with step-free entrances

and inclusive design measures. Through its craftsmanship, environmental sensitivity and civic openness, Bokšto Skveras exemplifies how architectural interventions in historic contexts can be both regenerative and inclusive. It is now considered one of Lithuania's strongest precedents for balancing restoration and innovation in urban redevelopment.

## Sustainable Architecture and Level(s)

**Operational Energy Use** Separate Energy Performance Certificates (EPCs) were issued for the different buildings within the complex, reflecting their varied age, condition, and retrofit potential. Energy classes range from B to C, depending on insulation capacity and HVAC system upgrades.

**Materials and Circularity** Durable, long-lasting materials were prioritised throughout the project, in line with heritage constraints and lifecycle quality. While the project doesn't explicitly report on recycled content or reuse, the restoration approach inherently reduced demand for new material resources.

## Comfort, Health, and Indoor Environmental Quality

Due to the limitations of retrofitting traditional ventilation systems into a heritage complex, an innovative solution was adopted. Ventilation was partially integrated with heating via anti-static plastic ducts embedded in the floor structure. Additional airflow is provided through convector heaters and underfloor systems.

Given the insufficient area for traditional heating surfaces, capillary heating mats were embedded in walls and ceilings, allowing rooms to be heated and cooled efficiently. This low-energy, radiant system provides stable thermal comfort

across seasons.

Dynamic lighting systems were installed throughout the complex. These allow variable brightness and colour tones, supporting circadian rhythms and adaptable atmospheres. Smart controls enable the creation of customised lighting scenes for different activities and times of day.

**Adaptability** The Smart Home system enables integrated control of heating, cooling, lighting, and security across the complex. All utilities are interlinked and controllable via a single interface, ensuring long-term adaptability and efficient building operation.

### Relevant EU and Related ACE Policies

- 1 EU Level(s) Framework: While not explicitly applied, the project aligns with Level(s) indicators for resource-efficient renovation, particularly in life cycle thinking, energy performance, and indoor environmental quality. The provision of separate EPC ratings for buildings within the complex is noteworthy and exceeds the disclosure norm for award-winning projects.
- 2 New European Bauhaus (NEB) Principles: The project exemplifies NEB ambitions by blending aesthetic value, environmental responsibility, and social inclusion. The public accessibility of the restored courtyard, integration of green infrastructure, and sensitive heritage regeneration all reflect the NEB's call for quality of experience and cultural continuity.
- 3 EU Renovation Wave & Long-Term Renovation Strategies (LTRS): Bokšto Skveras demonstrates a high-quality retrofit in a culturally protected area, aligning with LTRS priorities for improving building stock while preserving architectural heritage. It also showcases the role of design excellence in delivering wider social and urban regeneration outcomes.
- 4 ACE Statement on Quality Architecture and Built Environment: The project reflects ACE's position that architecture contributes to the public good through sustainability, cultural continuity, and usability. The balance between historical sensitivity and forward-looking design, along with cross-disciplinary collaboration, aligns with ACE's advocacy for a holistic design approach.

### ACE Recommendations

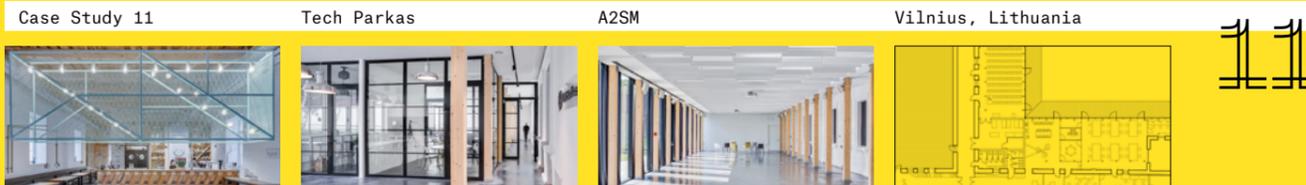
- 1 Encourage Awards to Recognise Operational Energy Reporting: While EPCs are not yet ideal measures of operational performance, this project's transparent reporting is ahead of most peers. ACE recommends that architectural awards request and publish operational energy use (even if approximate) to foster accountability and benchmarking.
- 2 Strengthen Feedback Loops for Heritage-Led Regeneration: Projects like Bokšto Skveras show how urban renewal can blend conservation and innovation. ACE encourages the use of awards and funding mechanisms to promote structured feedback and knowledge-sharing from these complex, long-duration projects.
- 3 Highlight the Role of Committed Clients in Enabling Excellence: The success of this project underscores the importance of a dedicated client with high-quality ambitions and the patience to support a 13-year process. ACE recommends public sector procurement and EU funding calls include explicit criteria to support informed and ambitious commissioning bodies.
- 4 Support Application of NEB and Level(s) in Heritage Settings: This project demonstrates that NEB and Level(s) principles can be meaningfully applied even in complex historical environments. ACE recommends tailored guidance and award categories that highlight best practice in integrating EU sustainability frameworks with cultural heritage protection.
- 5 Mandate Architectural Competitions for Sensitive Sites: Inspired by this project, Vilnius has since introduced regulations requiring competitions for large-scale and high-rise buildings. ACE recommends that Member Organisations promote similar policies to safeguard architectural quality, transparency, and community benefit in complex developments.



Bokšto Skveras  
Norbert Tukaj (photos)  
Studio Sielern (plans)



# Tech Parkas Vilnius Tech Park



## Project Overview

Vilnius Tech Park began with a bold vision: to create a dynamic hub for startups and the wider tech ecosystem. This ambition helped persuade the Vilnius City Municipality to lease the former hospital grounds, comprising an ensemble of 19th-century low-rise brick buildings located in Sapieha Park, for 24 years (see 25 years on next page).

The site itself has deep historical roots. Originally owned by the noble Sapieha family from the 17th century, it once housed a manor, monastery and landscaped park. The hospital, built in the 19th century, remained in use until 2015.

The design brief prioritised informal, creative spaces to foster collaboration, while carefully repurposing existing structures. The architectural team was tasked with transforming the sombre atmosphere of the former hospital into an open, inspiring workplace, retaining key heritage features while enabling new functions.

The phased fit-out process required iterative design revisions, adapting to the challenges of working with heritage fabric and newly uncovered layers. The result is a vibrant, multi-use tech campus that blends innovation with historical continuity.

Vilnius Tech Park exemplifies a Baukultur and NEB approach to adaptive reuse, urban regeneration and community inclusion. The project was developed by a team of architects and architectural researchers with a clear sensitivity to heritage and social value.

Preserving the historic fabric of the 19th-century hospital complex was a key design principle. Minimal new additions, such as a carefully placed event hall, were integrated without disrupting the integrity or legibility of the existing ensemble. Spatial interventions were guided by attention to scale, materials, and the parkland context, resulting in a harmonious and human-scaled environment.

<b>Case Study Author</b>	Martynas Mankus, edited by Judit Kimpian
<b>Award</b>	Introspection 2017-2018, Lithuanian Union of Architects.
<b>Location</b>	Vilnius, Lithuania
<b>Completion Date</b>	2017
<b>Client</b>	Private
<b>Architect</b>	A2SM Architektai
<b>Building type</b>	Retrofit, Mixed use offices
<b>Area</b>	10,200 m <sup>2</sup> , 80,000 m <sup>2</sup> including grounds
<b>Construction Cost</b>	€ & €600/m <sup>2</sup>
<b>Level(s) indicators</b>	Energy use 32.43 kWh/m <sup>2</sup> /year

## NEB and Baukultur Ambitions

Despite a limited budget, the client's vision for a vibrant start-up ecosystem convinced the Vilnius City Municipality to lease the site for 25 years (see 25 years on previous page). That commitment, combined with the project's success, has led the developer to pursue similar adaptive reuse schemes, placing increasing emphasis on circular design principles and material reuse.

Crucially, the project embraced inclusive design and civic engagement. A portion of the site was allocated to the Antakalnis neighbourhood community, who established the "City Laboratory"—a centre with a café, gallery, event space, hydroponic garden and DIY children's playground. This unique community use of a privately leased site exemplifies NEB ideals of accessibility, co-creation and care.

The transformation of the former hospital grounds into a multifunctional tech campus and public park has dramatically increased use and visibility. Where car traffic once dominated, the site is now fully pedestrianised, encouraging daily visits from residents. The park, office spaces, cafés, and community amenities now serve a diverse range of users, helping to knit the complex back into the urban and social fabric of the Antakalnis district.

## Sustainable Architecture and Level(s)

**Operational Energy Use** The project demonstrates a pragmatic and resourceful approach to low-energy design, particularly in the community centre developed on site. Founded as a space for "green ideas," the centre integrates simple, cost-effective strategies with eco-innovations. These include solar panels, a greywater system, composting of kitchen waste, and the reuse of

construction materials. As a result, the building consumes remarkably little energy.

Across the broader site, EPCs (in full?) vary by building, reflecting differences in age, thermal performance, and HVAC (in full?) capacity. Where possible, additional insulation and system upgrades were implemented, resulting in improved but varied energy ratings.

**Materials and Circularity** The renovation prioritised conservation and reuse. Most of the existing structures and facades were retained, with minimal demolition. Materials were salvaged and repurposed—interior furniture, for instance, was custom-built from leftover wooden beams. This early embrace of circular principles positions Vilnius Tech Park as one of Lithuania's first significant adaptive reuse projects to incorporate thoughtful material recovery and waste minimisation at scale.

## User Experience and Operational Performance

The transformation of the former hospital grounds into Vilnius Tech Park has had a profound impact on the local community. Once underused and mono-functional, the site now operates as a vibrant, multipurpose public space. The restored park has become a popular destination for both Tech Park users and residents, offering open green areas, cafés and community-run spaces that encourage interaction and inclusivity. The low operational energy use of the community centre also demonstrates a successful integration of environmental and user-centred design principles.

### Project Enablers

The project was driven by a visionary private developer with a strong commitment to both sustainability and community engagement. This ambition was supported by a 25-year land lease from the Vilnius City Municipality, which recognised the project’s potential to regenerate the area and stimulate the local economy. The partnership between public authorities and a motivated private actor proved crucial to the success of the development. The involvement of architects and architectural researchers further ensured design quality and sensitivity to the site’s heritage and context, making this a standout example of aligned political will and private initiative.

Vilnius Tech Park exemplifies how private development can achieve high-quality urban regeneration with sustainability and community inclusion at its core. Situated on the historic site of a former hospital estate, the project revitalised a previously underutilised park and building complex into a dynamic, multi-functional tech campus. The transformation was not only architectural but also social: the project opened up green space to the public, created a hub for startups, and handed part of the site to the local community for civic use.

This success was made possible by a visionary client, willing to adopt long-term thinking, take design risks, and invest in collaboration with architects, researchers, and the municipality. The 25-year lease from Vilnius City Council provided essential policy backing. A phased and adaptive design approach, rooted in the reuse of existing structures and materials, underpinned its sustainability. The project stands as a model for aligning private ambition with public good.

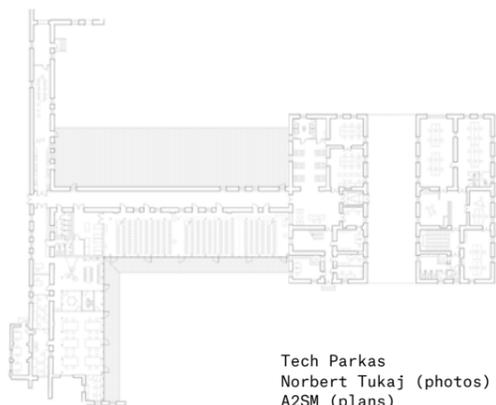
### Relevant EU and ACE Policies

- 1 New European Bauhaus (NEB): The project strongly reflects NEB values, especially in terms of inclusivity, aesthetics and sustainability. The involvement of the local community, the human-scale adaptive reuse of heritage buildings and the creation of a publicly accessible park speak directly to NEB ambitions.
- 2 Level(s): While no formal Level(s) assessment was undertaken, the project aligns with several indicators in practice: Life cycle thinking and circularity: Reuse of materials, heritage preservation and minimal new construction.

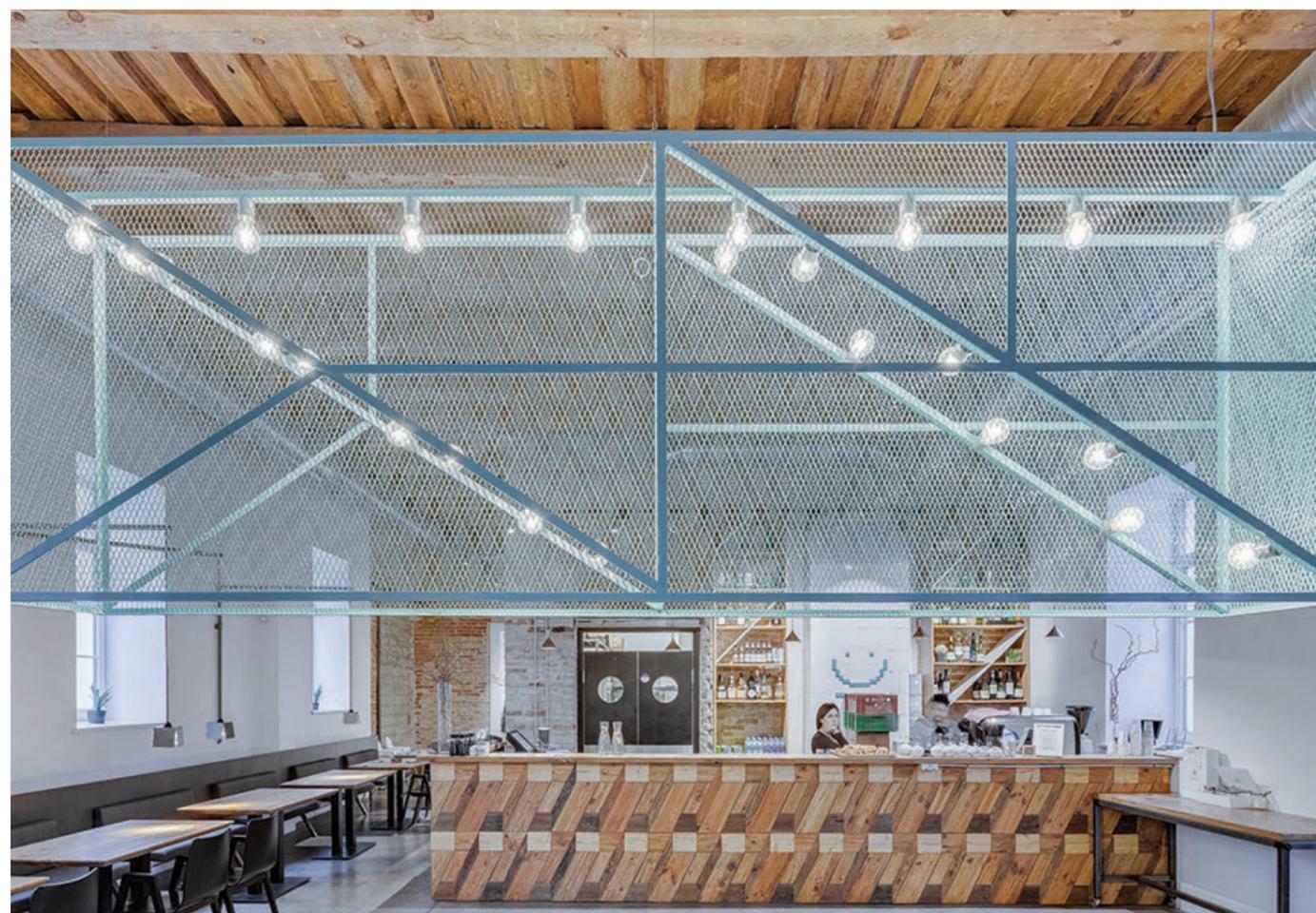
- Operational energy use: Community centre demonstrates low-energy solutions and renewables.
  - Indoor environmental quality: Reuse-based interiors and passive comfort strategies.
  - EU Green Deal & Renovation Wave: The project supports the EU’s objective to decarbonise and revitalise building stock, especially heritage and public-interest buildings.
- 3 EU Urban Agenda & Leipzig Charter: Demonstrates place-based, community-oriented urban development, aligning with integrated sustainable urban development goals.

### ACE Recommendations

- 1 Support public-private partnerships for heritage regeneration. This project highlights how public land leases and municipal trust can unlock investment and innovation in heritage contexts.
- 2 Encourage design teams that include architectural researchers. Their involvement enabled deeper engagement with adaptive reuse and community design processes.
- 3 Recognise and reward community integration in private projects. Award schemes and public policy should value developments that transfer space or stewardship to local residents or civic uses.
- 4 Promote long-term stewardship in regeneration projects. Lease models with vision-aligned private developers can safeguard quality and continuity of purpose.
- 5 Embed feedback loops into project evaluation. The visibility of this project’s public value could be amplified further by formalising post-occupancy studies and user feedback.
- 6 Encourage circular economy in practice. As an early adopter of construction waste reuse in Lithuania, this project sets a precedent for resource-conscious retrofit that could be scaled up with appropriate guidance and incentives



Tech Parkas  
Norbert Tukaj (photos)  
A2SM (plans)



# Almadraba Nueva Umbria



## Project Overview

This coastal regeneration project revives a near-forgotten industrial and ethnological landscape on Spain’s Huelva coast—a former tuna fishing installation with Roman origins. By rehabilitating ruins and crafting an accessible pedestrian route through the protected Flecha del Rompido dunes, the project restores cultural memory and ecological sensitivity. Traditional techniques, local stone, and low-impact construction ensure harmony with the site’s natural and historic context.

<b>Case Study Author</b>	Juan Antonio Ortiz
<b>Title</b>	Landscape enhancement and intervention in the Almadraba of Nueva Umbria
<b>Location</b>	Lepe, Huelva, Andalusia, Spain
<b>Architects</b>	Sol89 (María González García and Juanjo López de la Cruz)
<b>Client</b>	Junta de Andalucía, Dirección General de Ordenación del Territorio
<b>Completion</b>	2022
<b>Budget</b>	€453,075.99 (excl. VAT)
<b>Funding</b>	75% EU (EAGF), 25% regional government
<b>Awards</b>	Winner of CSCAE Hábitat Award; shortlisted for Mies van der Rohe, FAD, AHI, ENOR, and others

### NEB and Baukultur Ambitions

This project exemplifies all three NEB pillars. It is beautiful, using minimalist whitewashed volumes and local craftsmanship to evoke abstraction within the wild landscape. It connects people through new access routes and interpretive panels that explain the Almadraba’s role in regional identity. It integrates sustainable practices, preserving ecological habitats while offering a space of reflection on harmonious co-existence between nature and tradition.

In Baukultur terms, it achieves remarkable landscape coherence, embraces shared heritage and was supervised collaboratively by over a dozen institutions, from civic associations to ministries.

### Sustainable Architecture and Level(s)

This is a low-tech, low-energy and materially frugal intervention. It reused on-site materials, adopted lime mortars and silicate paints that sequester CO<sub>2</sub>, and applied Roman-style jetty construction techniques to enhance longevity without steel. The wooden pathway is reversible and minimally invasive, safeguarding native flora and bird habitats. There are no operational energy needs, the project prioritises embodied cultural and ecological value over mechanical systems

### Summary—Key Distinction

A masterclass in respectful landscape intervention, the Almadraba of Nueva Umbria project restores memory, ecology, and access through design that is both understated and monumental. It is proof that careful stewardship of place—with minimal resources and maximal understanding—can offer regenerative transformation that transcends metrics

### Relevant EU and ACE Policies

This case aligns strongly with EU ambitions under the New European Bauhaus, the Cultural Heritage Action Plan, and the Circular Economy Action Plan. It demonstrates the use of European Agricultural Guarantee Funds (EAGF) in delivering Baukultur and biodiversity outcomes. It also resonates with the Davos Baukultur Quality System in its holistic and contextual design.

### ACE Recommendations

- 1 To ACE Member Organisations: Promote case studies like this that combine ecological restoration with intangible cultural heritage recovery.
- 2 To the ACE Board: Encourage EU-funded heritage and biodiversity-led design interventions under regional development and agricultural funds.
- 3 To policymakers: Facilitate replication through policy frameworks that support low-cost, heritage-sensitive coastal regeneration using local techniques and multi-agency collaboration. Support inclusive interpretation and public access infrastructure that creates educational and cultural value.



# Social Housing in Ibiza



## Project Overview

This compact, efficient residential project delivers high-quality, affordable rental homes at just 20% of typical local rates—a critical intervention in Ibiza’s pressured housing market. The building’s form draws from vernacular architecture, with a permeable ground floor and interlocking communal voids designed to foster community. A tight budget and bureaucratic delays were overcome through close collaboration between the public client and the architects, aided by a strong commitment to architectural quality and sustainability.

The final built volume maximises the external envelope with 19 dwellings distributed over five upper storeys. Relationship spaces are favoured, especially intermediate areas that prioritise collective use over individual space. Wide, bright and accessible circulation encourages interaction, aligned with universal design principles. The permeable ground floor acts as an open plaza—an extension of the street—linked to upper floors by a central void, reinforcing visual and social connection throughout.

<b>Case Study Author</b>	Juan Antonio Ortiz, edited by Judit Kimpian
<b>Awards</b>	Multiple international accolades, including winner of the 2022 Spanish Biennial of
<b>Location</b>	Ibiza, Spain
<b>Completion date</b>	2022
<b>Client</b>	IBAVI (Institut Balear de l’Habitatge)
<b>Architect</b>	RipollTizón
<b>Structural Engineer</b>	Manuel Arguijo (structural engineer)
<b>Services Engineer</b>	Javier Colomar and Antonio Prats
<b>Procurement</b>	Winner of ideas competition by IBAVI 2008
<b>Typology</b>	New-build social housing, 19 dwellings
<b>Area</b>	2,274m <sup>2</sup>
<b>Construction Cost</b>	€2,006,869; €882/m <sup>2</sup>
	Architecture and Urbanism

## NEB and Baukultur Ambitions

Situated on the fringe of Ibiza’s marina and adjacent to floodplains, the site is surrounded by tourism-focused buildings lacking a coherent masterplan. This project counters that visual and functional fragmentation by proposing a coherent architectural response rooted in climate, culture, and typology. Drawing from Ibizan rural forms, it employs white volumes, carefully calibrated openings, shaded porches and communal spaces.

The design enhances place identity and neighbourhood coherence through tactile, durable materials such as glazed ceramics and by rejecting perimeter fences to dissolve boundaries between private and public space. Communal areas double as transitional zones where children can play and neighbours can gather.

Accessibility is a priority: all levels are connected by an accessible lift, and the building includes two wheelchair-accessible dwellings with compliant circulation and amenities. Governance was exemplary: IBAVI (in full?) acted as an active design enabler, using public competitions and transparent processes to foster innovation and quality.

## Sustainable Architecture and Level(s)

The client’s brief centred on maximising dwellings, reducing emissions and eliminating the need for air conditioning—targets met through passive design, compact planning and efficient technologies. The project achieves Energy Class A without mechanical cooling. Strategies include:

- 1 Dual-aspect orientation for all units, allowing cross-ventilation and daylighting
- 2 Avoidance of underground construction—parking and services are above-ground
- 3 Use of FSC-certified larch timber for solar-protected joinery
- 4 Garden areas and permeable pavements to maintain soil integrity
- 5 Renewable systems: aerothermal DHW, photovoltaics, and heat recovery ventilation
- 6 Standardised and industrialised components to streamline construction and reduce waste

While formal Level(s) metrics are not reported, the approach aligns strongly with circularity and resource efficiency, setting a replicable precedent.

### Relevant EU and ACE Policies and Recommendations

This project reflects key priorities from the New European Bauhaus, Davos Declaration and ACE's sustainable housing agenda: high-quality design for all, place-based approaches to social inclusion and passive climate-responsive design. It supports the case for architectural competitions and visionary public clients as powerful tools for delivering Baukultur. However, the absence of post-occupancy data points to an opportunity: greater feedback loops and in-use monitoring (e.g. through Level(s)) would reinforce learning and help scale this model.

ACE could use this as an exemplar in:

- 1 Advocating for client leadership in architectural quality
- 2 Promoting post-occupancy evaluation to capture long-term performance and liveability
- 3 Supporting Level(s)-aligned feedback mechanisms in EU-funded housing

### Summary—Key Distinction

This is not just an energy-efficient housing block, but a reinvention of community life in a rapidly transforming urban edge. Its most compelling contribution lies in its reimagining of vernacular beauty and belonging for the 21st century, delivered affordably, inclusively, and with design rigour. In a setting dominated by market-driven tourist architecture, it shows how public clients can lead with care, culture, and climate-consciousness. IBAVI's role as a transparent and design-focused public client—awarding projects via open competitions and prioritising end-user dignity—was key. The result is a building that does not just provide housing, but fosters citizenship, participation, and place-based identity. This model deserves wider emulation.



Social Housing  
José Hevia (photos)  
RipollTizón (plans)



# Helga De Alvear Museum of Contemporary Art

Case Study 14 Helga De Alvear Museum Tuñón + Albornoz Arquitectos Cáceres, Spain



## Project Overview

Donation of Helga de Alvear's art collection to Extremadura prompted creation of a contemporary art museum and public garden to provide high-quality exhibition spaces, and to act as a meeting point, educational hub, and cultural platform for diverse activities. A new pedestrian route through the new museum gardens links the historic and modern parts of Cáceres. The new building and gardens activate underused areas of the city, integrating green space into the urban fabric, and weaves art and culture into citizens' everyday routes and routines. The building integrates exhibition halls, cultural programming, and a public garden that extends its reach into the city. The museum embodies the aspiration of culture as a common good, shared through open exhibitions, lectures, and activities, integrating cultural, and social spaces into the historic city.

<b>Case Study Author</b>	Juan Antonio Ortiz
<b>Award(s)</b>	CSCAE Premio Nueva Bauhaus (2021), Bienal Española de Arquitectura y Urbanismo (2021), COAM Prize (2021), AMO Prize Trans-Europe Archi (2020), Architectural Masterprize (2020), Archilovers (2020)
<b>Location</b>	Cáceres, Spain
<b>Completion Date</b>	2020
<b>Client</b>	Fundación Helga de Alvear (formed by Extremadura Regional Government, Cáceres City Council, and Helga de Alvear)
<b>Architect</b>	Tuñón + Albornoz Arquitectos (Emilio Tuñón Álvarez, Carlos Martínez Albornoz)
<b>Structural Engineer</b>	Alfonso Gómez Gaité, Alfonso Redondo, GOGAITE Ingenieros
<b>Services Engineer</b>	Carlos Úrculo, URCULO Ingenieros
<b>Contract type</b>	Public competition (won 2005)
<b>Building type</b>	Newbuild Cultural Centre / Museum
<b>Area</b>	Building: 5,000 m <sup>2</sup> ; Public Garden: 2,800 m <sup>2</sup>
<b>Construction Cost</b>	€8,330,438.88 & €1,666/m <sup>2</sup>
<b>Level(s) indicators</b>	Energy performance: 164 kWh/m <sup>2</sup> /year (Rated A, Spanish EPC) Life Cycle GWP: 29.85 kg CO <sub>2</sub> /m <sup>2</sup> /year (Rated A, Spanish EPC) Water consumption: 2,469 m <sup>3</sup> (incl. garden) for 127,186 visitors in 2023 IAQ: advanced AHU system with air quality probes and filters (G4, F7, F9) Lighting: centralised control system responsive to daylight and user needs Acoustics: silent heat pump, AHUs internalised to reduce noise

### NEB and Baukultur ambitions

The project has opened a cultural infrastructure to the whole city, consolidating governance through a public-private foundation, and transforming a regional centre into a cultural destination of national and international relevance. Procured via a public competition in 2005, opening design to transparent selection, the project was redesigned several times (2005–2015) to adapt to financial constraints, culminating in a high-impact but lower-cost 2020 building and garden.

The Helga de Alvear Museum exemplifies how architecture can regenerate a city by combining cultural ambition with inclusivity and sustainability. Its spatial identity is marked by a clear, contemporary aesthetic: luminous white concrete and warm oak interiors create dignified spaces for art, while carefully orchestrated daylight and artificial lighting ensure visual comfort and accessibility. The 2,800 m<sup>2</sup> garden contributes to the biodiversity and ecological resilience of the city centre, but is also programmed as a civic space for gathering, events, and informal use, reinforcing social and cultural exchange. By connecting the historic and modern parts of Cáceres, it functions as both ecological and cultural infrastructure.

The result is an architecture that enhances the sense of place, standing as a new cultural landmark that complements rather than competes with the city's historic fabric. The museum has become one of Spain's foremost centres for contemporary art, drawing visitors from across the country and abroad while enriching the everyday cultural life of local citizens. It has contributed to the economic and social vitality of Cáceres, not just as a tourist destination but as a city more strongly identified with cultural participation and exchange. The project demonstrates how cultural ambition, architectural quality, and urban integration can combine to generate long-term value for both local communities and broader society.

### Sustainable Architecture and Level(s)

The Helga de Alvear Museum was designed with the explicit ambition of achieving high energy performance and resource efficiency while integrating contemporary cultural infrastructure into a historic city context. According to its Energy Performance Certificate (EPC), the building achieves an A rating, with calculated values of 164 kWh/m<sup>2</sup>/yr for energy use and 29.85 kg CO<sub>2</sub>/m<sup>2</sup>/yr for life cycle global warming potential.

While these are modelled rather than measured outcomes, they indicate the design's commitment to minimising operational and embodied impacts.

A suite of measures underpins this performance. The building envelope and systems were optimised to reduce demand, supported by advanced air-handling units (AHUs) with multiple filtration stages and continuous air-quality monitoring. These ensure both energy efficiency and high indoor air quality. A centralised lighting control system responds dynamically to daylight availability and user needs, reducing consumption while enhancing exhibition quality. Acoustics were addressed by relocating plant indoors and installing a super-silent heat pump, ensuring both low environmental impact and visitor comfort.

The museum also emphasises the role of its public garden in contributing to climate resilience and ecological value. The 2,800 m<sup>2</sup> landscaped area provides shade, cooling, and biodiversity benefits, extending the museum's environmental role beyond the building envelope. Water consumption in 2023 was reported at 2,469 m<sup>3</sup> (including the garden), serving 127,186 visitors, suggesting the importance of balancing public access with sustainable resource management.

#### **User Experience and Operational Performance**

From the outset, the museum was conceived not only as a container for art but as a civic and educational resource. Visitors consistently report high levels of satisfaction with both the building and its cultural programming. The Foundation's staff are recognised for their active role in helping people engage with contemporary art, lowering barriers for those unfamiliar with it. Environmental comfort also supports the visitor experience: the combination of advanced HVAC, air-quality monitoring, and responsive lighting ensures exhibition spaces remain both technically appropriate for artworks and comfortable for people. The landscaped garden extends this experience outdoors, creating a welcoming civic space where social life, leisure, and culture intersect. In this way, the project strengthens the everyday relationship between citizens and contemporary art, embedding it into the rhythms of urban life.

#### **Project Enablers**

The success of the Helga de Alvear Museum was made possible by an unusually strong constellation of enablers. At its core was the visionary

ambition of Helga de Alvear herself, whose decision to donate her collection and establish a foundation set the project in motion. This was matched by the active commitment of the local authority and regional government, who not only supported the project but also aligned it with broader Baukultur and New European Bauhaus values, recognising the transformative potential of culture-led regeneration.

The project was procured through a public competition, ensuring transparency and design excellence from the outset. The design and delivery benefitted from a highly interdisciplinary team—architects, engineers, planners, and cultural specialists—who collaborated closely with the client and foundation staff to adapt the project over several iterations while safeguarding its quality. The Foundation's cultural staff also played a crucial role in shaping programmes that make the building accessible and meaningful to diverse audiences. Together, these enablers created the conditions for the museum not only to be realised under financial constraints, but also to achieve lasting architectural, cultural, and social impact.

The museum faced significant financial constraints, requiring multiple redesigns, and challenges with the technical capacity of the construction company during delivery. Yet these obstacles were overcome thanks to the resilience and commitment of the client side — Helga de Alvear, the City Council, and the regional government. Their determination to adapt, optimise budgets, and hold on to the cultural ambition over many years ensured that the project was realised with integrity, despite reduced scope and setbacks.

#### **Summary**

The Helga de Alvear Museum of Contemporary Art demonstrates how visionary patronage and strong public governance can regenerate a city through architecture. Conceived after the donation of Helga de Alvear's collection, the museum provides high-quality exhibition spaces and a public garden that reconnects historic and modern Cáceres, activating underused areas of the city with new cultural and ecological infrastructure. Its clear contemporary aesthetic, combined with careful lighting and environmental design, creates dignified, comfortable spaces for art and people alike.

Designed to high environmental standards, the museum achieves an A-rated energy performance with optimised fabric, efficient systems, and climate-responsive controls, complemented by a landscaped garden that enhances biodiversity and resilience. Visitors praise both the building and its programming, supported by engaged cultural staff who lower barriers to contemporary art.

### Relevant EU and related ACE policies

The Helga de Alvear Museum demonstrates how investment in cultural infrastructure can revitalise a historic city, aligning closely with Baukultur principles of governance, place quality, and cultural value. It reflects NEB ambitions of integrating functionality, beauty, and sustainability, and touches on several Level(s) indicators for energy, indoor quality, and resource use. As such, it offers a strong example of architecture acting as an economic and cultural driver, extending impact well beyond the building itself. At the same time, the project highlights the need for more systematic evidence of outcomes to ensure that such transformations are inclusive, sustainable, and verifiable.

### ACE Recommendations

The Helga de Alvear Museum highlights the power of cultural architecture to act as an economic and cultural activator, but it also illustrates the limitations of current awards and frameworks in evidencing wider impact. While the museum is celebrated for its spatial quality, civic role, and environmental ambition, there is limited published evidence of its actual social and environmental outcomes. Claims of circularity remain unclear, energy performance is based on calculated rather than measured data, which illustrate the sector-wide challenge of translating calculated performance into verified outcomes, and of providing transparent evidence of circular practices beyond broad commitments.

Inclusivity and cultural transformation is asserted without transparent mechanisms for asserting neighbourhood or vulnerable group participation. For ACE, this raises two important lessons. First, the risk of gentrification must be considered: cultural investment should enrich and include local communities rather than displace or exclude them. Second, going forward, architectural awards should request substantiated evidence of performance and participation – not only design intentions. This includes data on operational energy, user experience, cultural inclusion, and local economic benefits.

ACE should encourage the New European Bauhaus and Level(s) frameworks to clarify what type of evidence should be collected and how it can be verified. Awards provide a crucial opportunity to test whether these criteria are usable, delivered in practice, and result in the transformation they envisage. In this way, awards can help shift architecture from aspiration to accountable impact.



Helga de Alvear Museum  
Amores Pictures (photos)  
Tuñón + Albornoz Arquitectos (plans)



**Discussion**

– Reflecting the exploratory and collaborative nature of the Peer Learning Group.



The PLG group discussed the importance of validating that goals set at briefing stage are realised in practice, as these types of feedback loops inspire the most learning. Moreover, architects frequently lose out by not documenting their success – their influence would be significantly greater, and the benefits of architecture more irrefutable, if systematically evidenced.

This section draws on these discussions and incorporates insights from Eva Álvarez and Carlos Gómez (on gender perspectives in awards), and Marcos Marcou (on structural challenges in the awards ecosystem). The discussion is presented in a question-and-answer format to reflect the exploratory and collaborative nature of the Peer Learning Group.



Almadraba Nueva Umbria  
Sol89  
Fernando Alda

**To what extent are current awards incorporating sustainability metrics and NEB criteria?**

- 1 Few have explicit sustainability criteria. Among those that do, the UK (RIBA) requires energy, water and carbon data; Ireland (RIAI) occasionally includes carbon figures for publicly funded buildings; and Lower Saxony (Germany) requests sustainability narratives.
- 2 Most awards (except the UK) do not include quantitative information on cost, performance, or context, limiting the ability of juries to evaluate affordability, availability, sustainability, or quality.
- 3 Awards tend to favour aesthetic and formal qualities over functional and environmental performance.
- 4 Strengthening submission requirements to include hard-to-obtain information may reduce the number of entries.

**What are the barriers to data collection?**

- 1 Compilation of much of the desired information (e.g. operational performance, whole-life carbon) is not currently a statutory requirement and would require extra effort to assemble.
- 2 Data is often not produced as part of the design or delivery process.
- 3 Concerns about liability, if results diverge from expectations, discourage transparency.
- 4 Apart from the UK's Stirling Prize, most schemes do not request post-occupancy data.

**Would more tangible data help architects and the wider built environment community change the culture of design and construction?**

**Yes. It would:**

- 1 Empower architects to evidence the impact of their design work.
- 2 Strengthen architects' roles in project delivery through to completion.
- 3 Align architectural recognition with performance-based outcomes.
- 4 Enable professional institutes to lead cultural change, as seen in the UK, Ireland and Finland.

**Are the awarded projects representing Level(s) and NEB 'values' even if they do not explicitly reference these schemes?**

- 1 Excellence in NEB-relevant dimensions (e.g. beauty, inclusion, sustainability) is often present but not always explicitly framed.
- 2 Jury expertise and discussion play a key role in identifying innovation.
- 3 Evidence is largely limited to visuals and narrative rather than empirical data.
- 4 Site visits are not universal but valued when conducted.
- 5 Unwritten norms and local architectural culture strongly shape jury decisions.

**To what extent are current awards texts embedding sustainability information in their project descriptions?**

- 1 Descriptions often highlight spatial innovation, materials, or lighting, but rarely address whole-life sustainability, climate adaptation, or long-term use.
- 2 Award photography tends to present unpopulated buildings, omitting human interaction and real-world function.

**What are the most helpful awards criteria to attract project submissions of high architectural and cultural quality that also meet climate change mitigation and adaptation criteria?**

- 1 Clear guidance aligned with climate and quality objectives, such as the RIBA 2030 Climate Challenge.
- 2 Recognition for care-sensitive, inclusive or circular design.
- 3 Criteria that balance ambition with achievability to maintain submission levels.

**Are the actual awards criteria reflected in the submissions?**

- 1 Where awards ask for specific data, it is generally supplied.
- 2 UK experience suggests that culture change takes time: reliable in-use data only began to appear after several years of guidance and support.
- 3 More targeted and realistic requests could improve response rates.
- 4 ACE and national institutes can support this shift by advocating, training and harmonising expectations.

**Are the awards processes reflecting NEB values?**

- 1 Yes, often implicitly and occasionally explicitly.
- 2 The Lithuanian State Awards are a good example of explicit NEB alignment.
- 3 Jury balance and representativeness is not always a formal requirement but is often achieved informally.

**What is the impact of gender inclusion on architecture awards?**

- 1 Gender inclusion in awards reflects broader inclusion in the profession and helps diversify perspectives in recognised projects;
- 2 Persistent disparities remain across Europe in leadership and recognition for women;
- 3 Awards with gender-conscious processes and juries surface a broader range of projects and voices.

**How can awards better integrate the gender perspective?**

- 1 Revise criteria to include equity and inclusion.
- 2 Introduce new award categories for care-sensitive, inclusive or gender-aware design.
- 3 Ensure jury diversity and use data to track trends.
- 4 Promote good practices from initiatives such as “Yes, We Plan!” and gender-focused awards in Austria and France.

**What are some critical issues with the current architectural awards ecosystem?**

- 1 Non-institutional awards may lack transparency, consistent criteria and focus.
- 2 Some awards function more as marketing tools than as peer-reviewed recognition.

**What makes state-backed architectural awards more credible?**

- 1 Tied to policy frameworks and less subject to commercial bias.
- 2 Focused on built work with societal benefit.
- 3 Involve respected, independent juries.

**How can the architectural community reassert quality over visibility?**

- 1 Advocate for evidence-supported evaluations.
- 2 Distinguish architectural merit from promotional value.
- 3 Elevate awards that prioritise public interest and environmental/social impact.
- 4 Foster a culture of outcome-sharing beyond design intent.

**What type of feedback and data would help establish the enablers of high-quality architecture?**

- 1 Retrospective studies involving client and project team insights;
- 2 Longitudinal evidence on use, performance, and social outcomes.

**How could we best evidence the innovative ways projects have overcome barriers to high quality architecture that meets the climate challenge?**

- 1 Document these via roundtables, award follow-ups and applied research using Level(s) and NEB tools.

**How can we scale up the excellence demonstrated in the exemplars documented in the report?**

- 1 Normalise feedback and lesson-sharing in practice;
- 2 Embed NEB and Level(s) in education and recognition frameworks;
- 3 Include key report recommendations in future awards criteria.

**These reflections provide a foundation for shaping next steps, explored in the final section: Recommendations and Conclusions.**



Uhlhornkriche  
Pfitzner Moorkens  
Frank Aussieker

**Recommendations and Conclusions**

– Revealing powerful enablers behind architectural excellence.



# Recommendations & Conclusions

This report explored the transformative potential of architectural awards in scaling up excellence in sustainable and inclusive design across Europe. Built on a collaborative effort by ACE Member Organisations, the findings highlight both the promise and current limitations of awards schemes in aligning with the EU’s climate, social, and cultural priorities.

The case studies showcased in this report reflect high ambition, technical innovation and context-responsive design. They demonstrate how excellence can emerge through visionary clients, strong client–architect relationships and a deep understanding of place. Remarkably, many of the most successful projects were led by architects with personal or emotional ties to the site, enabling designs that are more attuned to local identity and public value.

The projects showcased in this report demonstrate varying levels of response to NEB, Level(s), and the EPBD. NEB properties are more readily reported than Level(s) ones and reporting on whole-life carbon (WLC) remains still rare – but it is more likely in countries, in which professional bodies of architects have actively pressed for this, such as Finland, UK, Ireland and Germany. In these countries the awards criteria have begun to include WLC assessments, operational energy targets and water performance benchmarks. There is a growing appetite for recognition schemes that celebrate not only architectural beauty but also resilience, social value and long-term performance.

Yet, across most award schemes, feedback and operational data remain scarce. While NEB-related values—beauty, inclusion and sustainability—were widely acknowledged, alignment with Level(s) indicators such as whole-life carbon (WLC), operational energy and water performance remains uneven. Reporting on these indicators was strongest in countries where professional bodies actively championed sustainability metrics (e.g. Finland, Ireland, UK, Germany). However, post-occupancy evaluation (POE), feedback on replicability and dissemination of enablers were rare.

## The peer learning process revealed the powerful enablers behind architectural excellence:

- 1 Visionary and committed clients (often occupying or funding the buildings themselves);
- 2 Close, trust-based client-architect relationships;
- 3 A deep contextual understanding or emotional investment in the site;
- 4 Long timelines enabling phased delivery and iterative adaptation;
- 5 Supportive municipal policy and regulatory frameworks;
- 6 Access to additional funding (e.g. EU, public grants, foundations);
- 7 Community integration and flexible, mixed-use programming.

**The inclusion of the gender perspective article reinforces the value of inclusive design rooted in user experience, showing that such approaches converge with sustainable design principles. This confirms that equity and sustainability are not parallel goals but deeply interconnected and mutually reinforcing dimensions of architectural quality.**

**To advance this agenda, we offer the following recommendations:**

### Strategic Recommendations

- 1 Embed feedback mechanisms in awards: Encourage post-occupancy evaluations (POEs) for award-winning projects to gather insight into performance, usability, and user experience.
- 2 Promote learning from exemplars: Develop structured processes—videos, reports, workshops—that showcase how projects overcame barriers or achieved excellence.
- 3 Encourage knowledge-sharing through EU projects: Require funded teams (Horizon, RRF in full?) to submit “replicability and enablers” briefs, or short lessons-learned summaries.
- 4 Support evidence-based evaluation: Awards criteria should request data on operational energy, WLC, circularity, and water use—aligned with Level(s).
- 5 Translate NEB values into awards criteria: Ask applicants to reflect on inclusion, beauty and sustainability in design and delivery.
- 6 Embed social science and user research: Encourage collaboration with SSH ?? disciplines to evaluate wellbeing, place identity, and participatory processes.
- 7 Ensure gender-inclusive and equitable practice: Include diverse juries, equity-related categories and track participation by gender.
- 8 Support architectural institutes in capacity-building: Offer guidance and harmonised reporting formats to help architects provide richer award submissions.
- 9 Explore AI for transparency and dissemination: Use generative AI to support case study drafting, multilingual publishing, and comparative analysis.

### Policy & Funding Recommendations

- 1 Require knowledge transfer in briefs: Public clients should mandate replicability plans and POEs for demonstration projects.
- 2 Take lessons learned a funding condition: Horizon, RRF, and national programmes should require dissemination of post-occupancy insights.
- 3 Simplify award submissions: Professional bodies should collaborate on user-friendly templates aligned with NEB, Level(s), and EPBD.
- 4 Create an open-access EU benchmarking system: The European Commission and JRC (in full?) could support a data platform compiling award project performance.

#### A Call for Cultural Shift

**Architectural awards have long defined the narrative of excellence. Expanding that narrative to include environmental, social and cultural impact is essential to building a regenerative, inclusive, and climate-resilient built environment.**

**To realise this, excellence must be redefined, not just by aesthetics but by performance, impact and learning. The Peer Learning Group has shown that architectural bodies across Europe are ready to lead this shift, with the right tools, support and shared ambition.**

**This report also demonstrates the untapped potential of awards to enable knowledge transfer via retrospective studies. The case studies and white papers captured in this report provide a blueprint for how awards can evolve, how excellence can be made scalable, and how a new culture of transparency, inclusivity and performance can take root. Building this into the awards ecosystem could create a virtuous circle of visibility, inspiration and learning.**

# Appendix 1— Case Study Data Structure

Project Information	
<b>Case Study Author</b>	
<b>Award</b>	
<b>Location</b>	
<b>Completion Date</b>	
<b>Client</b>	
<b>Architect</b>	
<b>Structural Engineer</b>	
<b>Services Engineer</b>	
<b>Contract type</b>	
<b>Building type</b>	
<b>Area</b>	m <sup>2</sup>
<b>Construction cost</b>	€ & €/m <sup>2</sup>
<b>Additional funding</b>	
<b>Level(s) indicators</b>	Energy performance: kWh/m <sup>2</sup> /year
	Air tightness: m <sup>3</sup> /h/m <sup>2</sup>
	Embodied carbon: kg CO <sub>2e</sub> /m <sup>2</sup>
	Lifecycle GWP:
	Indoor air quality:
	HVAC:
	Circularity:
	Water efficiency:
	Comfort:
	Climate resilience:
	Certification:
	Biodiversity:

<b>Project Overview</b>	Project ambition, Building type, Location
	Function and functionality
	“Activate, Connect, Integrate” (NEB)
	“Include, Consolidate, Transform” (NEB)
	Impact
<b>NEB and Baukultur ambitions</b>	Context
	Sense of Space / Aesthetics
	Public Realm Regeneration
	Biodiversity and Ecological Enhancement
	Participatory Design
	Social Inclusion and Accessibility
	Governance
<b>Sustainable Architecture and Level(s)</b>	Global Warming Potential
	Operational Energy Use
	Materials and Circularity
	Efficient use of water resources
	Comfort, Health, and Indoor Environmental Quality
	Daylight and Visual Comfort
	Indoor Air Quality and Ventilation
	Acoustics and Noise Control
	Climate Change Resilience—Overheating
	Thermal Comfort and Overheating Mitigation
	Surface Water Management
	Adaptability
	Economic and Social Value, Lifecycle Cost
	Certification
<b>User Experience and Operational Performance</b>	
<b>Project Enablers</b>	
<b>Summary</b>	
<b>Relevant EU and related ACE policies</b>	
<b>ACE Recommendations</b>	

## Appendix 2— State Prize Lower Saxony Awards Criteria

### Sustainability at the Day of Architecture and the State Prize for Architecture in Lower Saxony

Authors: Dr Felicia Reiss und Gabi von Allwörden (AKNDS)

The Day of Architecture is a nationwide event organised by the 16 Federal Chambers of Architects in Germany. Every year on the last weekend in June, building owners open their buildings to the interested public. The architects are on site and give guided tours of their buildings. The Day of Architecture is an established and very popular event that inspires hundreds of thousands of visitors nationwide every year. The State Prize for Architecture has been awarded by the State of Lower Saxony and the Chamber of Architects for over 25 years and honours—on specific themes—excellent buildings and facilities that have been realised in Lower Saxony. It is the state’s highest architectural prize and a central component of the State Initiative Baukultur. The number of applications has ranged from 17 in 2000 to 96 in 2016. So far, the focus of the State Prize has not been on sustainability, but sustainable aspects have always played a role in the evaluation criteria (urban design qualities, design qualities, qualities of use).

In 2023, Lower Saxony was the first German federal state to specifically ask applicants for sustainability criteria when applying for the „Day of Architecture“—in the first year on a voluntary basis.

- This means that in addition to the usual information about the objects (object data, address, photo, explanatory text, declarations of consent), sustainability criteria.
- The Lower Saxony Chamber of Architects has a committee for climate protection and sustainability since 2010. This committee has developed 7 theses for sustainable planning and building: <https://www.aknds.de/mitglieder/nachhaltigkeit#c18069>
- The scheme is synonymous with the “Declaration of Sustainability Architecture” of the initiative “Phase Sustainability” of the German Sustainable Building Council (DGNB) and the Federal Chamber of Architects: [https://static.dgnb.de/fileadmin/phase-nachhaltigkeit/DGNB\\_Phase\\_Nachhaltigkeit\\_Deklaration\\_Architektur.pdf?m=1633433046&](https://static.dgnb.de/fileadmin/phase-nachhaltigkeit/DGNB_Phase_Nachhaltigkeit_Deklaration_Architektur.pdf?m=1633433046&)

The first version from 2023 was evaluated and significantly revised and specified again. Find below the revised and simplified sustainability questionnaire, applied for the following activities in 2024 in Lower Saxony:

- “Day of Architektur” 2024
- Creation of a “Database for good examples of climate protection and building culture”
- “State Prize for Architecture” 2024

Following on from the Day of Architecture, the organisers of the State Prize were also interested in making this award more sustainable. For the 2024 State Prize, it was therefore decided that sustainability criteria are being asked of applicants. In addition to the usual request for property data and explanatory texts, the focus is therefore very clearly on sustainability.

At this point (May 2024), a total of 50 applications have been submitted on the topic of Sustainable building for business and work. The next step is for the jury to assess whether the inclusion of sustainability criteria in this process can help to make sustainability measurable and present it to the public in a way that is effective and useful way for an award such as the State Prize. The winner will be awarded in autumn 2024, and we are convinced, that it is about the broad impact of the topic: solutions must not be a special case, but a matter of course.

### Sustainability Questionnaire

#### Introduction

Sustainability means taking into account the social, ecological and economic aspects of the life cycle when planning. Particular attention must be paid to climate protection, climate resilience and energy efficiency. This questionnaire is designed to give you an overview of the key aspects of your submitted project.

Please choose a maximum of seven important aspects from the following list that were the focus of your project.

#### Climate protection, ecology and resource conservation

- 1 Preservation of existing qualities such as building structures, climate-regulating and nature relevant green areas and fresh air corridors, open spaces and landscape (e.g. site analysis carried out)
- 2 Socio-cultural qualities / user participation
- 3 Integrated planning (already from the first planning phase)
- 4 Land utilisation / unsealing
- 5 Preservation of existing buildings (bound grey energy)
- 6 High energy efficiency / efficiency class (e.g. efficiency house / passive house / energy-plus-concepts)
- 7 Local use of renewable energies (e.g. solar energy, heat pump)

- 8 Convertibility, flexibility of the floor plan
- 9 Life cycle assessment (LCA) / life cycle cost analysis (LCC)
- 10 Resource-conserving, renewable building materials (e.g. through certificates and seals)
- 11 Low-emission building materials and construction methods (e.g. indoor air measurement, pollutant classes)
- 12 Promotion and protection of biodiversity (e.g. plants, animals, habitats)
- 13 Soil protection, microclimatic aspects (e.g. reducing solar radiation)
- 14 Aesthetic ageing capacity / robustness of structures / service life

#### Sufficiency

- 1 As little as necessary (e.g. adequate space per person, simple construction)
- 2 Passive strategies (e.g. optimised use of daylight, shading, passive air conditioning, building component activation, passive cooling (geothermal energy))

#### Climate-resilience

- 1 Climate-appropriate construction (e.g. building orientation, summer heat insulation, storage masses in the construction)
- 2 Roof or façade greening
- 3 Buffering of rainwater / water retention

None of the topics mentioned apply

Please formulate your sustainability priorities here in a few sentences—please also indicate the energy efficiency class achieved and the renewable energies (max. 800 characters):

# Appendix 3— UK Stirling Prize Awards Criteria

## RIBA UK Awards 2025 Sustainability Questions

RIBA’s 2030 Climate Challenge sets a series of performance outcome targets for practices to aim towards, as explained further in the Sustainable Outcomes Guide. Each year, eligibility to enter RIBA Awards becomes more closely aligned with the objectives of the challenge, demonstrating the crucial role architecture must play in mitigating and adapting to the climate crisis, and as such the entry form includes mandatory requirements with respect to sustainability data. These key metrics are operational energy consumption, potable water use, and embodied carbon data.

In-use data for operational energy and potable water use derived from 12 months of occupancy has been a mandatory requirement for all stages of RIBA Awards since 2024. Each year, the carbon data requested at different stages of the awards increases. By 2027, we expect all entrants in the RIBA UK Awards to provide full carbon reporting. Please see the diagram below demonstrating these incremental changes.

Read on to discover the questions you will be asked to fill in when you submit your project. Some information requested is mandatory, however if mandatory data is required but not applicable to your project, you can insert ‘0’ (zero) in the data field and provide an explanation in the relevant text box - e.g. a bridge will not be able to provide some mandatory data due to its typology.

	RIBA Awards	RIBA National Awards	RIBA Stirling Prize & Reinvention Awards
<b>2024</b>	No mandatory data required	Upfront carbon data required	Upfront, embodied, and whole-life carbon data required
<b>2025</b>	No mandatory data required	Upfront & embodied carbon data required	Upfront, embodied, and whole-life carbon data required
<b>2026</b>		Upfront & embodied carbon data required	Upfront, embodied, and whole-life carbon data required
<b>2027+</b>		Upfront & embodied carbon data required	Upfront, embodied, and whole-life carbon data required

RIBA collects data for research purposes, except where you have stated that the information on the entry form is to be kept confidential. Any data used for research purposes to monitor trends in the profession will remain anonymous and no data from individual projects will be published without consent.

## Specification

### Gross internal conditioned floor area (m<sup>2</sup>)

‘Gross internal conditioned floor area’; is the gross internal floor area that is conditioned (e.g. heated and/or cooled).

### % Occupancy during 12-month period

The percentage occupancy, for this form, must relate to the energy data collection period.

### Is the project new-build or refurbishment?

New build / Partial re-use or full refurbishment.

### Describe the extent of the work.

(max. 300 words, optional)

Did the project make use of existing fabric or structure? Did the project team evaluate whether existing elements could be retained and upgraded instead of demolition and new build? Was a building demolished on site? Give details of its condition, include listed status if applicable.

### Airtightness (m<sup>3</sup>/hr m<sup>2</sup> at 50Pa)

Mandatory for projects over 1000m<sup>2</sup> GIA

### Provide any other supporting information relating to the building specification.

(max. 200 words, optional)

Please include any sustainability certifications achieved.

### Outline sustainability drivers, concepts, and specific environmental performance outcomes of the building. (max. 300 words)

How was sustainability considered during the architectural concept, form development, construction, and building end-use stages? Describe any performance analysis undertaken and the measured sustainability outcomes. Were there any special project objectives, challenges, or constraints? Was the design reviewed against the impacts of future climate change (e.g. future weather, flood risk, overheating risk)? Are there any innovations in sustainable construction? What are the key indoor and outdoor water use strategies? Please state how the project aligns with the RIBA 2030 Climate Challenge. Did the brief inform the sustainability strategy? What is the net-to-gross efficiency?

## Operational Energy

### Predicted energy use (kWh/m<sup>2</sup>/y)—

#### A design prediction

This is the total annual predicted regulated and unregulated energy use (measured in kilowatt-hours per metre squared per year based on the gross internal area (GIA) of the building).

### Actual energy use (kWh/m<sup>2</sup>/y)—

#### The on-site reality

This is the total annual gross operational energy use (measured in kilowatt-hours per metre squared per year based on the gross internal area (GIA) of the building) taken from measured data. Figures should reflect gross energy use and therefore should include energy used on-site from any on-site renewables. The measurement should be taken from energy meter readings (or energy bills + PV meter) for the building over a year, so that both winter and summer seasons feature in the calculation.

### Is gas used on site?

Yes / No

### Gas usage (kWh/m<sup>2</sup>/yr)—

#### The on-site reality

This is the actual annual gas usage.

### Airtightness (m<sup>3</sup>/hr m<sup>2</sup> at 50Pa)

Mandatory for projects over 1000m<sup>2</sup> GIA

### On-site renewable energy generation (kWh/yr)

This is the total annual renewable energy generated on-site, excluding heat pumps.

### Is your project connected to a district heat system?

#### If yes, please provide details (max. 200 words, optional)

What is the primary heating technology (e.g. gas boiler, gas combined heating and power, air/water/ground source heat pump)? If combined, please give an approximate split. At what temperature is the network delivering the heat? Is the heat upgraded in the building?

## Water

**Potable water use (l/person/day)**

This is the total annual drinking water used on site, measured in litres per person per day (l/person/day) in domestic and non-domestic, and metres cubed per pupil per year (m<sup>3</sup>/pupil/yr) for schools, taken from measured data.

## Carbon

**Note:** There are different amounts of mandatory project life cycle carbon data required at the various RIBA Award levels, as detailed below.

- RIBA Awards: carbon project data is not mandatory for RIBA Awards 2025.
- RIBA National Awards: upfront carbon and embodied carbon project data is mandatory at entry point.
- RIBA Stirling Prize and Reinvention Award: upfront carbon, embodied carbon, and whole life carbon project data is mandatory at entry point.

The carbon accounting methodology should follow the current edition of the RICS Professional Standard on Whole Life Carbon Assessment for the Built Environment.

**Building design life (years)****Upfront carbon (KgCO<sub>2</sub>eq/m<sup>2</sup>)**

‘Upfront Carbon’ emissions are the greenhouse gas emissions associated with materials and construction processes up to practical completion (Modules A1-A5 of the RICS Whole Life Carbon Assessment for the Built Environment). Upfront carbon excludes the biogenic carbon sequestered in the installed products at practical completion. This question is marked as optional for entrants, but is mandatory at entry point in order to be considered for the RIBA National Awards, RIBA Reinvention Award, and RIBA Stirling Prize 2025.

**Embodied carbon (KgCO<sub>2</sub>eq/m<sup>2</sup>)**

The ‘Embodied Carbon’ emissions of an asset are the total greenhouse gas emissions and removals associated with materials and construction processes throughout the whole life cycle of an asset (Modules A1-A5, B1-B5, C1-C4 of the RICS Whole Life Carbon Assessment for the Built Environment). This question is marked as optional for entrants, but is mandatory at entry point in order to be considered for the RIBA National Awards, RIBA Reinvention Award, and RIBA Stirling Prize 2025.

**Whole life carbon (KgCO<sub>2</sub>eq/m<sup>2</sup>)**

‘Whole life carbon’ emissions are the sum total of all asset related greenhouse gas emissions and removals, both operational and embodied over the life cycle of an asset including its disposal (Modules: A1-A5; B1-B7 (plus B8 and B9 for Infrastructure only); C1-C4 of the RICS Whole Life Carbon Assessment for the Built Environment). This question is marked as optional for entrants, but is mandatory at entry point in order to be considered for the RIBA Reinvention Award, and RIBA Stirling Prize 2025.

**Confirm the basis for the carbon footprint breakdown provided above.**

Please expand and explain the method used for the calculation. (max. 300 words, optional) Confirm which RIBA Stage calculations were undertaken at, and state assumed building life and assessment boundary (cradle to gate/cradle to practical completion/cradle to grave).

Confirm which life-cycle stages were included (i.e. Upfront carbon RICS Modules A1-A5; or Embodied Carbon RICS Modules A1-A5, B1-B5, C1-C4; Whole Life Carbon RICS Modules A1-A5, B1-B7, C1-C4). If you have been unable to provide whole-building carbon figures, but have calculations for specific building elements, you can use this textbox to provide the data and specify how they have been reached.

**Describe any strategies used in the building’s design to reduce embodied carbon. (max. 300 words)**

## Ecology / Biodiversity

**Explain key the ecological strategies. (max. 300 words, optional)**

How does the project enhance biodiversity, increase green infrastructure or create opportunities for productive growing spaces (e.g. local food production)? Were considerations made for biophilic design? What measures have been taken to mitigate any loss of Category A and B trees? Is the project situated on designated landscapes (e.g. greenfield land, Areas of Outstanding Natural Beauty, locally designated landscapes)? If so, what measures have been taken to mitigate the impact on the environment? How are any biodiversity net gain benefits safeguarded for future years on the site?

**Biodiversity net gain (BNG) % (optional)****Any other supporting information relating to the sustainability data. (max. 200 words, optional)**

## Appendix 4— Summary of NEB Scoring System

The New European Bauhaus (NEB) Self-Assessment Method enables project teams, evaluators, and policymakers to assess how well a project aligns with NEB values of Sustainability, Inclusiveness, and Aesthetics/Beauty across all phases—from design and construction to use and adaptation.

### Structure of the NEB Self-Assessment

Three core dimensions:

- 1 Sustainability
- 2 Inclusiveness
- 3 Aesthetics (Beauty & Experience)

Each dimension contains 4–10 thematic Key Performance Indicators (KPIs), based on a mix of quantitative and qualitative data.

### The Three NEB Dimensions

#### Sustainability

This dimension covers environmental, resource, and climate-related performance. It assesses energy demand, renewable energy integration, circularity, embodied and operational carbon, water and air quality, and resilience to climate hazards. Projects are expected to demonstrate lifecycle thinking, smart energy readiness, and the use of sustainable, locally appropriate materials.

#### Inclusiveness

This pillar measures social value and equity in the built environment. KPIs evaluate affordability, governance, stakeholder engagement, accessibility, diversity, and support for vulnerable groups. Projects are rewarded for participatory approaches, mixed-use and mixed-tenure strategies, and alignment with social justice goals such as decommodification or anti-displacement.

#### Aesthetics (Beauty & Experience)

Beauty is interpreted as a high-quality, culturally resonant, and emotionally engaging user experience. This includes spatial coherence, material richness, integration of heritage, and sensory delight. It also encompasses comfort, health, functionality, and long-term adaptability. Both traditional and contemporary interpretations of aesthetic and experiential value are recognised.

### Scoring Approach

Each KPI is rated using a 5-level performance scale:

<b>A</b>	<b>Transformative</b>
	Excellent performance fully aligned w/ goals
<b>B</b>	<b>Very Good</b>
	Clear contributions with high ambition
<b>C</b>	<b>Good</b>
	Moderate compliance with some innovation
<b>D</b>	<b>Basic</b>
	Minimum legal or procedural compliance
<b>E</b>	<b>Not addressed /Unacceptable</b>
	No evident contribution or misalignment

Scores may be visualised as a *radar chart* or *colour-coded matrix* for each dimension.

### Application and Use

The method supports self-assessment during:

- Design—to inform decision-making
- Delivery—to benchmark execution
- Operation—to verify performance in use

Projects can iterate their scoring over time, making it a useful tool for award submissions, procurement, and public reporting.

## Appendix 5— Davos Baukultur Quality System (DBQS)

As taken from the Davos Alliance website

“The Alliance builds on the objectives, values and principles of the Davos Declaration 2018 and the Davos *Baukultur* Quality System, which applies 8 criteria for creating well-designed places with an emphasis on cultural context and human-centered design. Both the concept of high-quality *Baukultur* and criteria seek to ensure that social, emotional, and cultural values are considered in the same way as technical and functional needs.

Governance

High-quality *Baukultur* follows good Governance.

Context

High-quality *Baukultur* results in spatial coherence.

Functionality

High-quality *Baukultur* fits the purpose.

Sense of Place

High-quality *Baukultur* improves the sense of place.

Environment

High-quality *Baukultur* protects the Environment.

Beauty

Place of high-quality *Baukultur* is beautiful.

Economy

High-quality *Baukultur* adds economic value.

For more information please refer to **The Davos Baukultur Quality System: Eight criteria for high-quality *Baukultur* (2018)** publication:

Diversity

High-quality *Baukultur* connects people.

- <https://www.davosalliance.org/about>

# Appendix 6— Level(s) Macro Objectives and Indicators

## Macro Objectives and Indicators

<b>1 GHG Emissions</b>	<b>Primary &amp; delivered energy consumption in use:</b> kWh/m2/yr
<b>2 Material Impacts</b>	<b>Bill of materials:</b> Abiotic fossil fuels, minerals, metals, Biotic materials
<b>3 Water Use</b>	<b>Use phase consumption:</b> m <sup>3</sup> /occupant/yr
<b>4 IEQ</b>	<b>Indoor air quality:</b> Ventilation rate l/s/m <sup>2</sup> ; CO <sub>2</sub> ppm; RH% <b>Pollutants:</b> TVOC, CVOC, RI VOC, formaldehyde, benzene, PM2.5/10; mcg/m <sup>3</sup> <b>Thermal comfort:</b> % time out of range degree days or hours
<b>5 Climate Change</b>	<b>Extreme weather events under future climate scenarios:</b> <b>Thermal comfort:</b> % time out of range degree days or hours 2030/2050 <b>Flood risk:</b> Surface water runoff; flood risk area
<b>6 Cost &amp; Value</b>	<b>Life cycle costs:</b> £/m2/yr

<b>Global warming potential:</b> Embodied CO <sub>2</sub> eq./m <sup>2</sup>	Service Life / Adaptability / Deconstruction / Reuse / Recyclability
<b>Waste flows:</b> Kg/m <sup>2</sup> disposed of, reused, recycled, E recovery	<b>Other LCA Criteria:</b> Ozone depletion, acidification, eutrophication, Photochemical ozone creation
<b>Embodied water:</b> m <sup>3</sup> /ton	
Lighting	
Visual	
Acoustic	
Sun rain	
Wind snow	
Sea level	
Value creation & risk factors: data quality of indicators	

## Appendix 7— A Gender Perspective on Architectural Awards

### A Gender Perspective On Architecture Awards

Eva M. Alvarez Isidro<sup>a</sup> and Carlos J. Gómez Alfonso<sup>b</sup>

#### Introduction

Gender dynamics in architecture awards are key because they highlight broader systemic issues within the profession. Architecture awards often originate from public or private procurement processes and sometimes through competitions. These awards are intrinsically linked to the conditions set by these procurement processes. Aligning competition conditions with those of procurement, particularly public procurement, is essential to ensure fair and equitable recognition of work.

Architecture is not just about creating buildings; it is about shaping the environments in which people live, work, and interact. The profession influences urban planning, public spaces, and the sustainability of our built environments. Therefore, it is vital that architecture reflects the diversity of the society it serves. Gender dynamics in architecture awards are a critical indicator of whether the profession is inclusive and representative of this diversity. However, gender mainstreaming is a key factor when trying to define what Quality in Architecture means, since when gender issues are effectively considered quality is a frequent result, as stated by Eva Kail, responsible of the Office for Women's Affairs in Vienna during more than 20 years.

a UPV Universitat Politècnica de València/ CSCAE Consejo Superior de Colegios de Arquitectos de España/ ASA Asociación Arquitectura y Sostenibilidad

b UPV Universitat Politècnica de València

#### Data

Research shows that gender disparities in architecture are prevalent globally. According to the Architects' Council of Europe (ACE), as of 2020, women make up about 41% of all architects in Europe, but they often face barriers to advancing their careers. A study by the Royal Institute of British Architects (RIBA) in 2019 found that women in architecture are more likely to work part-time and earn less than their male counterparts, with a gender pay gap of 15.4%.

In the United States, the National Council of Architectural Registration Boards (NCARB) reported in 2020 that while 42% of new architects were women, only 17% of firm leaders were female. This disparity highlights the need for targeted initiatives to support women in advancing to leadership roles.

#### Economy of Care

Equality is best achieved through policies that guarantee and protect it as a fundamental right. Experience shows that adding a gender perspective to these policies can significantly advance this goal. This principle is especially important in architecture and urban planning. To truly promote equality, we need to incorporate a gender-sensitive approach into design and public space development. By examining how different designs affect people of all genders, we can create more inclusive and fair environments for everyone.

Sustainably promoting these rights will involve holistically incorporating a gender perspective into architecture and urban planning. This calls for good analysis of phenomena like the following:

- Unequal power relations resulting from gender roles are often perpetuated and exacerbated via the construction of living spaces, including social housing.
- The gender perspective is closely related to the notion of care in a general sense. The Eurostat study on reconciliation of work and family life (2019) shows that: (a) more women than men have childcare responsibilities – among EU inhabitants with responsibility for childcare, 52.2% are women and 47.7% are men; (b) incapacitated relatives are mainly cared for by women – 63%, vs. 37% by men; and (c) women reduce working time or interrupt work more than men due to care responsibilities for ill, elderly and/or disabled relatives – 5.9% of women vs. 2.5% of men.

- The built environment can increase climate change risk or mitigate climate change effects. Analysis of this impact should apply a gender perspective, as individuals are often affected differently based on specific circumstances, including gender. For example, climate change exacerbates the already disproportionate adverse effects of energy poverty on women's health, well-being and economic opportunities. A study conducted in Barcelona in 2016 found that 70% of social service subsidies to combat energy poverty were granted to women, and that the risk of energy poverty was higher in single-parent families, 80% of which were headed by women.
- The COVID-19 pandemic shed light on the connection between environment and public health – from ensuring indoor air quality in buildings, to knowing the impact of poor housing on mental well-being, to understanding how energy poverty can adversely affect health.

Architecture can support people by designing buildings and spaces that supports residents' financial independence, such as access to jobs, education, and care services. It should also enable residents to make decisions about their living environment, with well-distributed public services, a strong sense of security, and easy-to-navigate public spaces. Additionally, the design should promote physical well-being with green spaces, good air quality, safety, cleanliness, and local services. These features not only help communities cope with climate change but also reduce social and economic inequalities that as seen, affect differently people according to their gender.

Why architecture awards are important?  
**Awards, Competitions, and Commissions**  
ARCH-E survey is connected to the ACE sector study survey, reflecting a collaborative effort to interlink and compare findings. From the 2022 ACE survey, we observed that the architecture field in Europe remains predominantly male, with approximately 150,000 architectural practices. A significant portion of these practices consists of one-person or two-person firms, with 62% of practices being single-person operations and 75% comprising two-person teams. Only a small fraction, about 13%, participate in competitions. Countries like Germany, Switzerland, and Austria lead in offering ADCs, raising the question of which firms are securing these commissions. Gender disparities are evident, with Croatia being the only ARCH-E partner country where women outnumber men in the profession. In most other European countries, including Germany and Spain, men dominate the field. The “Yes, We Plan” project, funded by the EU, aims to promote women architects and civil engineers, emphasizing the importance of gender diversity in the profession.

**YesWePlan! Promoting Women in Architecture and Civil Engineering**  
This EU-funded project connected different partner organizations with the aim of sharing experiences and best practice examples for closing the gender gap in the professional field of Architecture and Civil Engineering. Among their recommendations, it is possible to highlight:

- Encourage the creation of support NET-WORKS within and across profession.
- Lobby for adequate capacity and REFERENCE REQUIREMENTS that allows SMALL offices/MSMES (women are mostly owners of MSMEs) to participate in Public Procurement Procedures.
- Enforce equality based INVITATIONS to participate in invited Architectural Design Competitions.
- Enforce gender-balanced compositions of JURIES and other decision groups within the competition and awards processes.
- Create TOOLS TO STATISTICALLY EVALUATE the participation of women and men in Public Procurement Procedures and Architectural Design Competitions in order to fully evaluate the gender equality of participation.
- Emphasize the BENEFITS of GENDER EQUAL APPROACHES (public) clients (handbook/flyer) and promote a gender sensible approach in the development of Architectural Design Competitions (gender budgeting, functional analysis, etc.).

Why gender is a big deal?  
**Genealogies**  
Many women, including women architects, have made significant contributions and proposed innovative solutions for our built environment. Recognizing their achievements can lead to solutions that are more effective. Failing to acknowledge their work represents a missed opportunity and a lack of awareness at a decisive time for our society.

**Slow Science**  
According to Isabelle Stengers, addressing critical issues effectively requires incorporating the perspectives and voices of those impacted by these solutions, fostering collective and innovative thinking. Women architects have long advocated for this approach, proposing ways to integrate diverse viewpoints and collaborative strategies in addressing our challenges. Knowing their experiences might help to readdress the meaning of architecture and modernity.

**End users**  
The impact of architecture ultimately falls on its end users. Gender-diverse teams are more likely to create designs that better address the needs of diverse populations, considering a wider range of factors such as accessibility, sustainability, and community impact. Diverse architectural perspectives can lead to built environments that are more inclusive and better suited to the varied needs of the people who use them.

Architectural designs influence daily life, from the functionality of public spaces to the comfort and safety of homes and workplaces. When gender diversity is considered, architectural solutions are more likely to address the needs of all users, including women, children, the elderly, and people with disabilities. For example:

- **Accessibility:** Gender-diverse teams are more attuned to the importance of designing spaces that are accessible to everyone, including those with mobility challenges.
- **Safety and Security:** Women architects may bring unique insights into designing safer public spaces, addressing concerns such as lighting and visibility.
- **Sustainability:** Diverse teams can offer innovative solutions for sustainable living, integrating environmentally friendly practices that benefit the broader community.
- **Ergonomics:** Gender-diverse teams are more likely to consider the varied ergonomic needs of different users, ensuring that spaces are comfortable and functional for all.

Architecture awards: Best practices  
from a gender perspective

**CSCAE**

The Consejo Superior de los Colegios de Arquitectos de España (CSCAE) is committed to achieving equity in the profession. The following outlines how this perspective is being implemented:

**Review of the Awards Criteria and Categories:**

- CSCAE has begun revising and adjusting the criteria for architecture awards to ensure they reflect the diversity of the profession. For example, in 2022, a specific criterion on gender equality was added to the evaluation of CSCAE Architecture Awards.
- The inclusion of gender equality criteria in the awards has led to increased visibility for projects led by women. In the most recent awards cycle, 30% of the winning projects were submitted by teams with significant female representation.

**Promotion of Gender Perspective Projects:**

- CSCAE has initiated campaigns to promote and highlight projects that integrate gender perspective. In 2023, a special category was introduced in the awards for projects demonstrating innovative approaches to inclusion and accessibility, with particular focus on the needs of women and other diverse groups.
- In the latest edition, 15 projects were noted for their focus on gender inclusion, a 20% increase compared to the previous year.

**Data on Female Participation:**

- Statistics on participation in the awards show a positive shift in the representation of women. In 2024, 40% of the submissions for the CSCAE Architecture Awards came from firms led by women, up from 25% in 2019.
- This increased participation is also reflected in the awards granted, with a 35% rise in the number of awards given to projects by or led by women.

**France**

<https://yeswepplan.eu/intellectual-outputs/best-practice-examples/>

Since 1979, only 3% of Pritzker Prize winners—often considered the Nobel Prize of architecture—have been women. This includes Zaha Hadid in 2004, Kazuyo Sejima in 2012, and Carme Pigem in 2017. Similarly, the Grand Prize of Architecture in France, awarded by the Minister of Culture since 1975, has honoured just 3% women compared to 97% men.

In France, the “Équerre d’argent” prize, given by the newspaper *Le Moniteur*, shows that only 13% of awards and mentions go to female architects, often in mixed-gender teams. Despite 60% of architecture students being women and 30% being registered with the Order of Architects, only 13% run their own practice, and none head the 100 largest architecture firms in France. Additionally, while the income gap is narrowing, female architects still earn significantly less on average (€28,734) compared to their male counterparts (€48,745).

Efforts by the Ministry of Culture to promote gender equality in the field have yet to fully address the disparity in high positions and incomes, highlighting the need for dedicated awards for women architects. The ARVHA Women Architects’ Award, established in 2013, aims to rectify this imbalance by recognizing outstanding female architects in four categories: young architect under 40, original work, established architect, and international achievement.

This award has successfully spotlighted notable figures such as Odile Decq, Véronique Joffre, and Amelia Tavella, among others. It also features a “young women architects” category to promote emerging talent. Since 2017, the award has been international, honoring prominent women like Carme Pinos, Amanda Levete, Francine Houben, Elisa Valera, and Carin Schmut.

The ARVHA Women Architects’ Award is well-regarded globally, attracting over 60 candidates from various countries and inspiring other international organizations to consider similar awards. It is supported by the WOMEN IN ARCHITECTURE France association and fosters solidarity among female architects, linking them with a global network.

**Austria**

<https://www.anotherviewture.at/mission/>

There are 1.119 female architects and chartered engineering consultants registered in Austria and 744 of them are actively working in their field of profession. 1.119 women, representing 10% of highly trained and officially accredited experts in Austria who design and create our built environment and develop engineering projects. The *anotHERVIEWture AWARD* introduces a number of these women and their work to you and a broader public in order to raise awareness of the female contribution to the building industry and to highlight role models in order to transform this field of profession towards equality and diversity.

The proportion of women among architects and consulting engineers is still very low. A special Committee of Women in the Austrian Federal Chamber of Architects and Chartered Engineering Consultants is working on various measures to achieve a more balanced ratio. For example the project “*YesWePlan!*”, co-funded by the Erasmus+ program of the European Union, connects different European partner organizations with the aim of sharing experiences and best practice examples for closing the gender gap in architecture and civil engineering.

The *anotHERVIEWture AWARD* will be presented for the second time in 2024. These are our aims: Highlight the contribution of women to building culture

- Highlight the contribution of women in technical professions and their importance in providing highly complex planning services.
- Create opportunities to network and empower women in technical planning professions
- Create role models
- Raise awareness that the advancement of women is important and necessary, especially in technical professions.
- Increase the proportion of women among architects and engineering consultants.

**UK Riba**

The Royal Institute of British Architects (RIBA) has implemented several strategic initiatives to advance gender equality in the UK architectural profession. These initiatives are aimed at fostering a more inclusive environment and providing women architects with the necessary support and resources. Key initiatives include:

**Enhancing Networks:**

- RIBA has created platforms like the RIBA Women’s Network, which connects women architects across the UK. This network provides opportunities for professional networking, collaboration, and support.
- The network has grown significantly, with over 1,000 members actively participating in events, discussions, and mentorship opportunities.

**Revising Reference Requirements:**

- RIBA has undertaken a review of its awards and recognition criteria to address potential biases and ensure fairness. For instance, the RIBA Awards for Excellence now include specific criteria to promote diversity and inclusivity.
- Because of these revisions, there has been a notable increase in the recognition of diverse practices. For example, in 2021, the proportion of women-led practices receiving RIBA Regional Awards rose to 35%, up from 25% in previous years.

#### Detected barriers and enablers

**Gender mainstreaming into architecture means considering different people's needs to avoid gender-based inequalities. It involves including gender perspectives in all stages of architectural policies to ensure fairness and equal opportunities. This approach helps create, for example, policies that provide affordable housing for everyone, regardless of age, income, or caregiving responsibilities. While policies vary across the EU, common challenges in applying a gender perspective include:**

**Women are underrepresented in STEM and architecture fields, limiting their impact on key services like housing, transportation, and renewable energy. There is a lack of detailed housing data broken down by sex, gender, and age from sources like Eurostat, making it hard to create effective policies to address gender inequalities. There are no specific methods or criteria for analyzing this data to design homes and neighbourhoods that promote gender equality. There is a lack of regular, well-organized ways for citizens to participate in local urban planning and neighbourhood changes. Gender concerns are sometimes treated superficially rather than as a serious issue. For example, Vienna's city council manual highlights several shortcomings naming it as gender-washing:**

- Gender-specific language and inclusive graphics are not consistently used.
- Gender aspects are only tagged and are not embedded in design processes.
- Gender is described in a general sense but is not translated into concrete goals or measures.
- Data are shown separately for women and men but there is no gender-specific analysis or explanation.
- The implementation of designs and results does not match equality goals, as conclusions are not drawn from a gender analysis.
- While gender advisors are involved, they lack relevant competences.
- Equality has not been integrated into steering instruments (for example, in forms like sustainable equality policies, quality management or budgeting).

#### Key Conclusions

**Gender mainstreaming transforms the approach to architecture from a one-size-fits-all solution (merely providing buildings) to one that considers the diverse needs and contexts of different people (architecture that offers adaptable solutions for users). Based on the previous considerations, it is possible to state that:**

- The awards presented in our field often reflect the values and priorities of the organizers and the jury. Winning proposals not only gain recognition but also set important benchmarks for future work. This recognition highlights what is considered exemplary, shaping industry standards and practices.
- Projects completed through public procurement processes, whether or not they involve Architectural Design Competitions (ADC), are frequently honoured with awards. This underscores the significance of such processes in the pursuit of quality and innovation in architecture. Aligning the criteria for awards with public procurement processes could be transformative, potentially setting new standards and elevating the entire field.
- To ensure equity and inclusivity, it is essential to evaluate ADC, public procurement, and awards criteria through a gender lens. Such an analysis can reveal biases and promote more balanced and diverse opportunities for all participants.
- Enhancing the systems governing ADC, public procurement, and awards can lead to improved working conditions for architects. By addressing and refining these systems, we create a more supportive and equitable environment for professionals in the field.
- Additionally, these improvements may have broader positive effects on our common environment, contributing to sustainable and thoughtful design practices.
- The alignment of the Association of European Architects (ACE) and ARCH-E with the objectives of the European Union (EU) and YesWePlan! Proposals (YWP) is a particularly welcome development. This alignment reflects a commitment to shared goals and enhances the coherence and effectiveness of our collective efforts.



Social Housing  
RipollTizón  
José Hevia

## Appendix 8— The other side of the Architectural Awards

### Author Marcos Marcou (Board Member, Cyprus Association of Architects) 2024 in discussion with Andre Pizzuto (President, Maltese Chamber of Architects)

- 1 A primary concern of the Architects' community (international / national / local) is to promote the realization of ADC and their outcome. To stress the importance of an open, fair and equal judgement, result of an intellectual process, expected to have a lasting qualitative change in peoples' environment.
- 2 Challenges posed by modern policy makers are increasingly supported by complex covered marketing tools. As the built environment transforms from an intuitive life support parameter to a lifestyle "POV" (Point Of View), Architecture and its product, is inevitably transformed into a tool. Architects fall for that as they see an opportunity for securing further commissions.
- 3 The smaller countries paradigm. The need of state architectural policy which substantiates the achieved quality of the architecture award. State awards, strict rules, (international / highly respected and acknowledged jury), not too often since building production is
- 4 The need for professional substantiated judging with weighted rules in each case.
- 5 The product-based awards to be understood as such ... only for promoting the use of the product, not the quality of the building. It should be made clear that a building may have both qualities, the exemplary or innovative use of a material / technology and the architectural qualities.
- 6 The private sector initiatives (need to be studied sociologically):

- By marketing companies that wish to secure event planning with specific industry sector participants locally or internationally. These often create a specific type of microcosmos with networked participants (perpetually paid or subscription based, later may be invited). Funding such initiatives requires the initial involvement of Architects' professional bodies for justification purposes and the support of sponsors.
- By publications. Architectural practices are offered "distinguished" awards, often made-up to fit a category, so that nobody is left unsatisfied.
- By material / technology industry sector producers. (VELUX Daylight awards)

- By private funds, art moguls, architecture lovers, (the Pritzker prize)
- 7 By type
- State awards or state unions' awards (MIES Awards)
  - International / regional awards (EUROPAN, PIRANESI, MIES Awards)
  - Lifetime recognition awards (PRITZKER)
  - Contribution to the profession awards
  - Best use of Software awards
  - By listing selected profiles

**Architects would love to summarize like "Jay and Cindy Pritzker believed that a meaningful prize would encourage and stimulate not only a greater public awareness of buildings but also would inspire greater creativity within the architectural profession."**

**All comes down to the process of publishing the weighted parameters. Which country considers which award most prestigious. Why should an architect seek to secure an award that was paid for (not nominated, not selected, elimination on equal qualitative terms)**

**Architecture should be celebrated for its impact on human behavior, the built environment, Awards should no be a means to whitewash policies.**

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# Architecture Awards— Instruments of Systemic Change

**Architects' Council of Europe / Conseil des Architectes d'Europe**

– Peer Learning Group Report on Architecture Awards as Instruments of Systemic Change.