



European  
Council of  
Interior  
Architects



# **NAVIGATING THE COMPLEXITIES OF RENOVATING THE BUILT ENVIRONMENT (3/3)**

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# INTRODUCTION

## New European Bauhaus

With the **New European Bauhaus**<sup>1</sup> initiative and the European Pact for the renovation of existing buildings<sup>2</sup>, the European Commission is adding an essential cultural dimension to the economic, social and environmental measures of the « Renovation Wave » strategy.

On the **European Commission's website**, it states:

**"A Renovation Wave for Europe – Greening our buildings, creating jobs, and improving lives."**

The European building stock reflects the continent's cultural diversity and rich history, making it both unique and slow to change. Over 220 million building units, representing 85% of the EU's building stock, were constructed before 2001. Moreover, 85–95% of today's buildings are expected to still stand in 2050.

Unfortunately, most of these buildings are not energy efficient. Many rely on fossil fuels for heating and cooling, using outdated technologies and energy-wasting systems. Buildings account for about 40% of the EU's total energy consumption and 36% of greenhouse gas emissions.

The COVID-19 pandemic has further highlighted the critical role buildings play in our lives. Homes became the centre of daily life for millions of Europeans—serving as offices, schools, and entertainment hubs. The strain on healthcare infrastructure and the need for adaptive commercial spaces have underscored the importance of resilient and energy-efficient buildings. These challenges demand a massive scale of deep, sustainable renovations.

By making this strategy a cultural project, including all stakeholders, with architectural quality and design quality as key guiding principles, the Commission is initiating a fundamental change. Its primary aim is to motivate a wave of quality renovation of buildings, to make a lasting difference in the minds of users and in their quality of life, and finally to achieve Europe's objective of climate neutrality.

## Transition

**Twin Transition** refers to the simultaneous transformation of societies and businesses in two key areas:

**The Green Transition:** The shift towards a more sustainable society that reduces environmental impact and conserves natural resources. This includes lowering carbon emissions, improving energy efficiency, using renewable energy sources, and working towards a circular economy.

**The Digital Transition:** The implementation of new technologies and digital tools to streamline processes, enhance analysis and innovation, and enable new ways of working and living.

These two transitions are closely intertwined. For instance, digital technology is used to optimize energy consumption, track resources for reuse, and create smart solutions for cities and buildings. At the same time, sustainability goals drive the development of new digital solutions. Twin Transitions is impacting the field by promoting innovation in material reuse, digitization of design processes, and the use of AI and BIM to create energy-efficient and recyclable buildings. It may also require changes in project management, such as integrating sustainability goals with digital tools for planning and coordination.

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<sup>1</sup> [New European Bauhaus, 2021 \(european-council.europa.eu\)](https://european-council.europa.eu/media/en/press-articles/2021/06/01/Pages/new-european-bauhaus-2021.aspx)

<sup>2</sup> [A Renovation Wave for Europe 2020 \(european-council.europa.eu\)](https://european-council.europa.eu/media/en/press-articles/2020/11/19/Pages/a-renovation-wave-for-europe-2020.aspx)

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Author of the cover page photo: Ricardo Gomez Angel.

# 1. Develop the profession

In architecture, the green transition is one of the biggest challenges and at the same time an opportunity to contribute to a sustainable future. By driving innovation in material recycling, digitizing design processes, and using AI and BIM to create energy-efficient and recyclable buildings. It may also require changes in how projects are managed, for example by integrating sustainability goals with digital tools for planning and coordination.

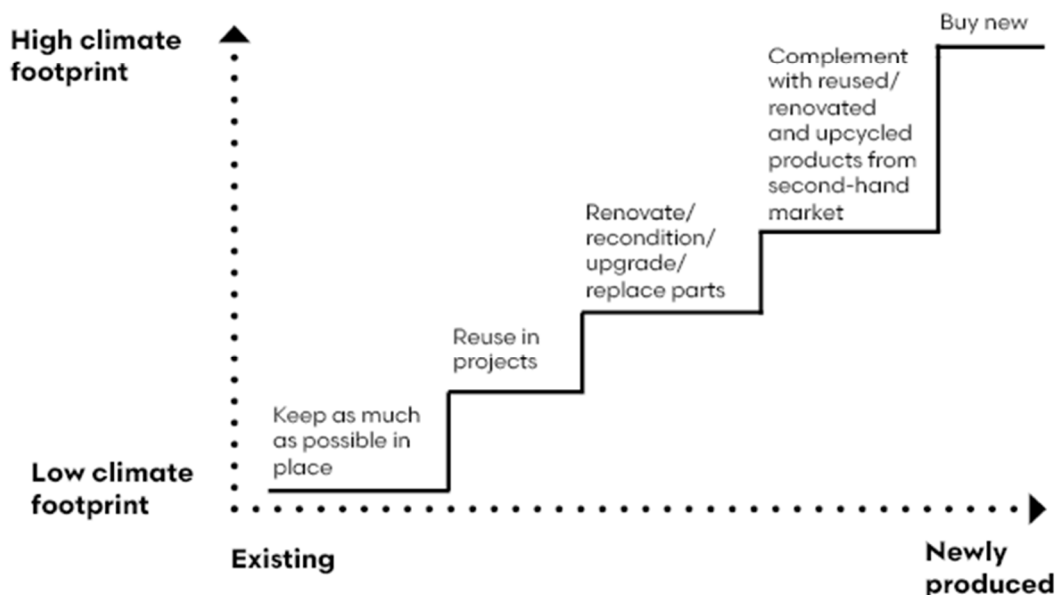
Circular economy and design is an approach to creating products, buildings and services that contribute to a circular economy, where resources are used as efficiently as possible and waste is minimized.

The goal is to design for a system where materials and products can be reused, repaired, upgraded and recycled, rather than following a linear model where they are produced, used and then thrown away.

Circular design is not just a method, but a philosophy that encourages seeing waste as a resource and design as an opportunity to create sustainable systems and solutions. By working with circular design, interior architects can reduce climate impact and create a more sustainable future.

Below is a stair that can sort existing products. The products that may not currently have been designed for a circular economy.

## Key steps to ensure low carbon impact and resource use in interior architecture



Buildings must be designed so that it requires minimal energy consumption. Through passive solutions such as insulation, orientation and natural light as well as integrating renewable energy sources, such as solar panels and geothermal energy. Using smart technology to optimize energy use and reduce energy waste.

We must prioritize materials with a low climate impact, such as wood, recycled metals and bio-based products, and avoid materials that are resource-intensive or difficult to recycle. We should also invest in locally produced materials to reduce transport emissions.

A plan for the entire building life cycle, from material production and construction phase to use, maintenance and dismantling. By carrying out life cycle analysis (LCA), we can understand and minimize the climate impact. Create buildings that not only reduce damage but actively improve the environment, for example by integrating green roofs, walls and systems that clean air and water. It is also important to design to support sustainable behaviour, for example by facilitating cycling, recycling and energy-saving choices. Involve users and developers in sustainability issues already in the design process.

### **The interior architect, a specialist at the heart of the built environment**

In our profession as an interior architect, it's about combining aesthetics and functionality with long-term sustainability. By challenging conventions and seeking new solutions, interior architecture can become a key player in the green transition if we find solutions to the challenges that exist.

Finding, adapting and integrating recycled furniture and materials that are of high quality and fit for purpose requires both time and resources.

Tracking the availability of reusable products will require collaborations with suppliers and developing new methods within it.

Also ensuring that recycled materials and furniture have a low climate impact, are non-toxic and easy to recycle.

We need to educate ourselves about new sustainable materials at the same time that we must critically review the suppliers' sustainability promises. We should design timeless and flexible interiors that can be updated rather than completely replaced.

Balancing high aesthetic demands with sustainable choices is particularly difficult when sustainable alternatives do not always meet expectations for look and feel. Here we have to be innovative in how we use materials and at the same time work with craftsmen to create tailor-made solutions.

There is often a lack of clear standards and requirements for sustainability in interior architecture projects compared to buildings. This leads to sustainability aspects often being de-prioritized. Therefore, we must work to include sustainability requirements in the early stages of the project and influence decision-makers to take the interior's impact seriously.

There is also a lack of digital tools to trace the origin of materials, sustainability data and their circular potential. Here, together in the EU, we must influence the development of tools that enable better transparency and analysis of the materials in a project.

Build less but build better. Renovating and renovation the existing built environment. This two-pronged approach is fuelled by the inevitable changes in the 'use' of spaces, where interior architecture conception is of paramount importance.

## Historically about the profession Interior architect

In the 1920s in Europe, there was still no talk of renovation, and it was in this conceptual vacuum that the notion of interior architecture was born. Professionals known at the time as “decorators” (or ensembliers in France) took over the built environment, providing it with the elements of contemporary comfort : sanitary facilities, lighting, central heating and the first thermal insulation, with the aim of cleaning, heating, lighting, soundproofing and making spaces functional and coherent with each other.



Willebroekkaai 37  
1000 Brussel, Belgium  
<https://ecia.net> ■ [info@ecia.net](mailto:info@ecia.net)

## 2. Building renovation: a social and existential need

Renovating, whether in the city or the countryside, is an intelligent way of preserving eco-systems or social rituals, intergenerational links, close relationships built organically over the centuries on the basis of affinities or places of power.

It's not a question of advocating a halt to new construction but, in the context of renovation, of encouraging the role of the interior architect: a subtle conceiver of these new urban weavings.

### *Urban areas*

In a European context of « city-centre redevelopment », where the enhancement of the memory of the place is a major issue of attractiveness, the interior architect personifies, through his or her sensitive and cultivated intervention, the interest of the urban environment, the citizen's interest in the "genius loci" by creating spaces that are aesthetically pleasing, friendly and functional spaces, often located in emblematic or historic districts or buildings.

### *Rural areas*

The phenomenon of rural depopulation and the frequent disappearance of local economic and social functions (doctors, small shops, cafés, schools) raises the question of the durability of buildings, which are often very old, dilapidated and not adapted to current environmental standards. Interior architects have the knowledge and methods (environmental responsibility, eco-conception, short supply chains, etc.) to redefine the premises, with a view to sharing functions or integrating new uses: keeping people in rural areas is a cultural identity issue.



### 3. Renovation to meet new uses for buildings

*New families, new food philosophies, new working techniques. Third places, shared accommodation, shared spaces, new forms of mobility.*

Within the built environment, an interior architecture project, when it affects the architecture of the building, becomes its own architecture. It is a discipline that comes under the heading of architectural conception, and so questions both use and meaning, at the very moment when the human body perceives them. The interior architect, with his or her specific training in the applied arts, develops a singular, sensitive and often pioneering view of the spaces through which human beings pass. In this way, they play a part in designing the way a building is used.

*The home and the change of the catering sector.*

In the world of housing, we now must integrate the concepts of shared and participative housing, which are not reserved for the student world: preserving intimacy and individuality while encouraging collective management.

Changes in family structures: single-parent families and blended families mean that we have to completely rethink the scenarios we use, as the age differences between children, large families, visits from ex-spouses, grandparents, etc.

The ageing of Europe's populations and the desire of today's seniors to maintain social links and remain active in their own lives are generating experiments that consider the preservation of autonomy, the encouragement of intergenerational links and mutual assistance.

New types of catering call into question ways of 'eating out' in places not designed for this purpose, where service and the « kitchen-catering room » circuit are called into question, sometimes becoming the heart of the project.

The development of all kinds of fast-food concepts, where the meal is no longer systematically linked to a particular place, implies multi-purpose spaces where, depending on the time of day, people can meet, work, have lunch or receive a customer.

The interior architect will have to think about these functional shifts, providing appropriate technical, regulatory, comfort and aesthetic solutions.

*"Finally, while the issue of buildings is not specific to the needs of the ageing population, it is a significant dimension: aesthetic choices and the quality of materials are particularly important as we move towards a more contemplative lifestyle, the choice of construction method has implications in terms of the complexity of monitoring and the time taken to complete the project. The use of delegated project management seems to be the preferred option" (Participative housing, a solution for ageing well? Fondation de France, Anne Labit, 2024)*

In this context, the interior architect's attention to detail means that he or she has an essential role to play in personalising the space and its design by adapting it to complex scenarios.

Through a direct relationship with the existing built environment, they conceive specific spaces on the scale of the user's daily life; space for receiving home deliveries, modular space for mobile meals, space dedicated to managing packaging, taking into account targeted hygiene, furniture ergonomics, fluid and energy savings, etc.



### *The hospitality industry*

The hotel industry, which has seen a number of different concepts develop (Airbnb, couch surfing, bed & breakfast), is returning to a more personalised welcome or, conversely, a more digitised one

*"Today, it's important to reconnect the hotel to the rest of the city, so we talk about a Social Hub, and this helps to create links. De standardisation is not just about aesthetics, it's also about the experience and services on offer" (Frédéric Alzeari, Creative Director at RF Studio)*

Whereas large franchises used to be located on the outskirts of urban areas, favouring a functional approach devoid of what is known as the « customer experience », today's hotels are located in commercial or industrial buildings that need to be brought up to health and safety standards.

The notion of « mobile working » also calls into question the traditional hotel model, with optimised surface relationships that model the concept of the « hotel room » differently.

In addition, the interior architect, with his knowledge of image issues and trends, shapes the hotel space to suit the geographical location, the climate and the commercial brand.

### *Workspace*

The explosion in « teleworking » is calling into question the tertiary model that has been in use for 1/2 a century and raising the question of the interpenetration between family and professional life, and the concept of the office building.

The use of « soft mobility », for which older buildings were not designed, is now leading to a different approach to access, circulation, garages and car parks.

Tertiary buildings, originally designed for workspaces that no longer find takers, need to be radically restructured in terms of their massing, internal circulation and energy systems, with a view to their detailed and contemporary use.

The interior architect, with an awareness of semiology or sociology, conceives the new workspaces, simultaneously taking into account the issues of proximity, promiscuity and security inherent in new technologies and new communication techniques.

### *New workspace – co-location spaces – incubators*

The development of new workspace requires designers to be extremely agile in the face of administrative constraints that sometimes collide. They must manage the neighbourhood between workspaces, restaurant spaces, performance spaces and various machine spaces, while complying with standards and regulations, depending on the spaces used.

While the rules must evolve in response to these new constraints, the political and administrative processes that this entails over the long term mean that the interior architect must come up with an immediate creative response.

Interior architecture, by virtue of its position in the middle ground between architecture and object, its scale of conceiving and its attention to sustainable development, is an essential parameter in the quality of the renovation market.

## 4. The interior architect method

Design cannot exist on its own, it must be accompanied by mastery of implementation. While remaining within the built environment, the interior architect is said to “bring architecture to completion” because he masters most of its components.

### *A design and project management method for renovation*

*The programme* is an essential phase in the pre-conception phase, enabling the technical and administrative constraints of the site to be identified so that a coherent programme can be drawn up. Essential for good communication between the client and the interior architect. It ensures that both parties are « in line » and understand each other's objectives and resources. The programme is also an opportunity to discuss and validate or question the fit between the project and the location. The conception of the spaces and their equipment is often carried out according to standardised phases, as set out in the standard contracts used in Europe: sketches, preliminary concept, final design, tender documents, contracts, works supervision, acceptance of works and file of completed works.

### *Compliance with standards*

Compliance with standards is an essential part of any renovation project. This stage is of direct benefit to the client, even though it is often ‘invisible’. Interior architects, by virtue of their proximity to day-to-day use and the scale of their projects, have long been aware of energy issues, air quality, thermal comfort, short supply chains and local sourcing. As a child of the Bauhaus movement, he knows that form must accept the constraints of its function, and the functions/constraints of our time are also those of eco-responsibility.

### *Knowledge of specialist trades*

As project manager, the interior architect knows how to make the best use of the various players in his field: technical engineering, historic monuments, craftsmen, specialists in old materials, and all specialist trades... They are also familiar with the regulations governing project management and, in particular, the obligation to take out civil liability and ten-year insurance (in some countries).

## 5. Conclusion

The interior architect probably opened the door to the notion of renovation at a time when architecture was, quite rightly, preoccupied with construction or reconstruction. It seems that the experiences of the great demolitions of the second half of the twentieth century, while satisfying to the eye of the town planner or architect, remain rather mixed. They were undoubtedly necessary, given that changing lifestyles meant that standards and regulations had to be challenged.

The amount of land being built on is now limited in many areas, in most European countries, and the trend is towards increasing the density of already built-up areas. The interior architect is therefore a key player in the urban and architectural dialogue, focusing attention on the human scale of conception, which he has mastered through his training and experience, and using an appropriate project management method.

While the architectural design family agrees that the reuse of old buildings is often technically complex and that its cost is no lower than that of new construction, it is no less true that the principle of “demolition-reconstruction” always brutalizes the urban structure, but also the social structure. The phenomenon of intelligent renovation is therefore justified.

Meeting EU climate targets for energy-efficient buildings will require collaborative frameworks. Intelligent renovation is not just a practical solution but a necessity for sustainable urban and rural development.

## 6. References

<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52020DC0662&from=FR>  
[New European Bauhaus, 2021 \(europa.eu\)](#)  
[A Renovation Wave for Europe 2020 \(europa.eu\)](#)