



Nebula
A Built4People Project



New European Bauhaus: A Handbook

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Cover page photo credit: Leah Kelley

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I. WHO IS THIS GUIDE FOR?

This handbook is dedicated to any person or entity willing to understand the concepts underlying the New European Bauhaus initiative launched by the European Commission and get familiar with the associated resources and opportunities.

It has been developed as part of the NEBULA project, a Coordination and Support Action funded by the Horizon Europe programme.

As such, this document is also designed as a tool for NEBULA's network of NEB Advisors, i.e., contact points in different countries willing to support any interested person in finding up-to-date information and opportunities related to the NEB.

II. WHY THE NEW EUROPEAN BAUHAUS?

Environmental and societal challenges drive the New European Bauhaus

In the last decades, we have experienced the impact of unsustainable economic growth that ignored the limited and finite resources from the natural environment. The consequences of man-made changes to the natural environment are affecting our everyday life and imposing several challenges to our future and to the future of the next generations. Pollution, climate change, the loss of biodiversity, the exhaustion of natural resources, affect people around the world. The increasing frequency of extreme weather events such as heat waves, wildfires, and flash flooding leads to food insecurity, lack of access to drinkable water, degraded housing conditions and public health, forced displacement, and many other issues.

The built environment is both affecting our natural environment and affected by its changes: it represents a huge lever to limit global warming and drive societal changes, but it must also adapt to fiercer climate conditions and scarcer resources.

Facing these multi-faceted challenges requires to adopt a transversal perspective and bridge some gaps: gaps between citizens and the professionals that design, construct and operate the built environment, gaps between the professionals themselves (architects, engineers, artists, sociologists...), gaps between people and nature. Bridging these gaps is what the New European Bauhaus aims at.



***“Why do we need the New European Bauhaus?
Because we need to bring the green transition closer to citizens.”***

European Commission

II. WHY THE NEW EUROPEAN BAUHAUS?

By the way, what was the original Bauhaus?

In 1919, Walter Gropius founded one of the most innovative schools of applied arts and design in Weimar, Germany. The school thrived in gathering artists, artisans, designers, and architects creating a collaborative, and multidisciplinary learning and teaching environment. The name Bauhaus means “House of Building” reflecting the school's essence by integrating industry and art to create a functional and aesthetically pleasant design for all aspects of the everyday built environment. The school's disruptive programme promoted the practical application of the material and techniques in several workshops encouraging the students to experiment and develop their own unique design style.

Despite only 14 years of existence, the Bauhaus had a significant impact on the design of buildings, furniture, and household objects for the years to come. The emphasis on the functionality, the simple forms, highly connected to industrial materials and production methods was a cultural and technical answer to the historical post-war period their participants were living in. The school students' and teachers' work shaped a legacy that still inspires generations for its interdisciplinary, collaborative, innovative approach to functional and beautiful design.

III. WHAT IS THE NEW EUROPEAN BAUHAUS?

An initiative launched by the European Commission

The New European Bauhaus (NEB) is an initiative launched in 2021 by the European Commission and inspired by the multidisciplinary, collaborative, and holistic approach from Bauhaus school legacy. It is designed as a movement that embraces art, culture, science and technology in a collaborative and life centric perspective inspired and learning from nature.

The New European Bauhaus is part of the [European Green Deal](#), a broader initiative of the European Commission, with three main ambitions: make Europe the first climate-neutral continent, disconnect the use of resources from economic growth and leave no person or place behind. The NEB supports research and innovation in the built environment sector that goes beyond the strictly technological solutions and functional methods and embraces the social, cultural and design dimension. It is an open dialogue across cultures, disciplines, genders and ages.

The European Commission intends to deliver the New European Bauhaus by:

- financing testing and demonstration, to enhance examples
- integrating NEB objectives in EU programmes
- recognising bottom-up initiatives through prizes
- communicating extensively to increase awareness and mobilisation.

The result of these actions is that the European society empowers itself with the NEB concepts to create the living spaces of our next generations.

"We will set up a new European Bauhaus – a co-creation space where architects, artists, students, engineers, designers work together"

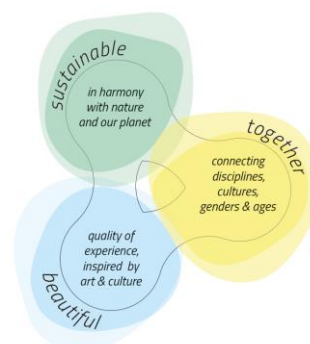
President Von der Leyen, [State of the Union Address 2020](#)

III. WHAT IS THE NEW EUROPEAN BAUHAUS?

Three core values

The NEB movement invites us to imagine our future under three core values: Beautiful, Sustainable and Together.

- **Beautiful** means looking beyond the functionality and recognising the inspirational power of aesthetic and design in the human experience. A well-designed built environment cultivates a sense of place, identity and cultural expression, evoking emotions and connecting individuals and communities.
- **Sustainable** means integrating nature-based solutions, energy efficient technologies, renewable energy, circular methodologies throughout the building life cycle, addressing the climate goals, carbon neutrality and preserving the biodiversity on the planet. It is about creating positive a relationship with the nature.
- **Together** means that no one will be left behind. The future of the built environment needs to be shaped by all of us, regardless of the background or abilities. Participatory approaches strive to acknowledge diverse perspectives ensuring a sense of belonging, social cohesion, and well-being for all. Spaces designed for all and by all, that are accessible and affordable.

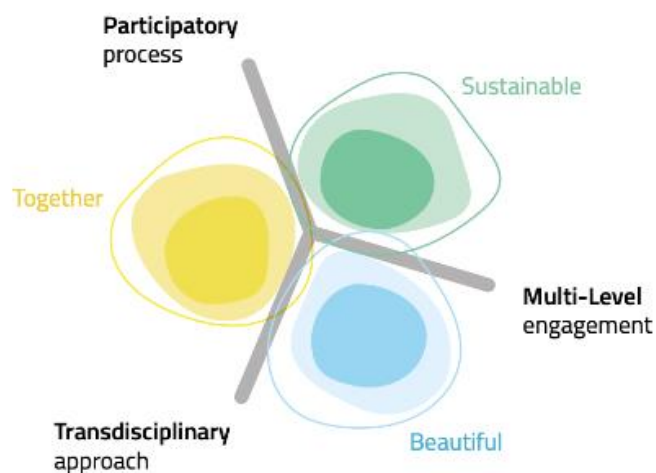


III. WHAT IS THE NEW EUROPEAN BAUHAUS?

Three working principles

The three core values are supported by **three working principles**: the participatory process, multi-level engagement, and the transdisciplinary approach.

- **Participatory process** means inclusion of all groups of the civil society in the decision-making processes creating a sense of ownership of the outcomes and results.
- **Multi-Level engagement** means a local approach with a global dimension. It is a collaborative framework that fosters exchange between peers (horizontal exchange) and between groups in different scales (vertical exchange) towards a common objective.
- **The transdisciplinary approach** means the collaboration between different fields of knowledge to deliver a common solution. The approach gathers professionals from academia to practitioners, experts to general public to work on an integrated solution as part of a cross fertilization process.



III. WHAT IS THE NEW EUROPEAN BAUHAUS?

Four axes of transformation

Based on the inputs gathered through a large co-design phase, the European Commission formalised four thematic axes for the implementation of the New European Bauhaus:

- **Reconnecting with nature:** i.e., supporting initiatives that bring people closer to nature and foster the shift from a human-centred to a life-centred perspective, that contribute to regenerate natural ecosystems and prevent loss of biodiversity.
- **Regaining a sense of belonging** for places, relying on cultural assets (heritage, arts, local craft...), natural assets (landscapes, natural resources....) and social assets (social economy enterprises, local organisations and associations...)
- **Prioritising the places and people that need it the most:** i.e., supporting solutions that are affordable and accessible for all, that foster the inclusion of vulnerable groups, bridging physical gaps (e.g. connection between rural and urban areas, accessibility to disabled) or digital ones (digital inclusion).
- **Shaping a circular industrial ecosystem and supporting life-cycle thinking,** to tackle unsustainable use of resources and waste. This includes aspects such as re-use, regeneration, and transformation of existing buildings; circular and sustainable design, and the use of nature-based materials.

III. WHAT IS THE NEW EUROPEAN BAUHAUS?

A 'NEB-by-design' project example

The last section of this handbook provides you with numerous concrete examples of projects aligned with New European Bauhaus concepts. Right below is a first one.

R-Urban (Bagneux, France) is designed as a citizen-driven ecological transition network of civic hubs. It promotes the regeneration of urban land in deprived neighbourhoods, based on eco-designed reversible facilities. The R-Urban hubs are built mostly from locally sourced and/or recycled materials. They offer vegetable plots, training programs and cooking sessions using food grown onsite. By changing lifestyles on a local scale, fostering citizen initiative and participation, the R-Urban strategy creates social and ecological value while contributing to a wider ecological transition.



Source: <https://2022.prizes.new-european-bauhaus.eu/node/304100>

III. WHAT IS THE NEW EUROPEAN BAUHAUS?

- R-Urban buildings are reversible and can be easily dismantled and relocated. The construction materials are sourced from local and/or circular systems and represent up to 75% of the total materials used.
- The hubs also offer a bioclimatic shelter in line with climate adaptation strategies.
- Eco-devices were installed to test the capacity of the buildings to reduce, recycle and generate ecological loops: a compost system, dry toilets, green walls, grey water plant filtering system, rainwater collection, passive heating.
- The overall aesthetic of the buildings is defined by simplicity and is largely influenced by the reduce/reuse/recycle principle. The overall site represents a sort of 'rural' enclave in an otherwise dense urban and industrial environment.
- Local residents were invited to take part in the co-mapping of potential sites and resources, co-designing and prototyping of eco-devices and co-construction of the buildings and landscapes. This enabled the appropriation of the place by its users.
- The governance of the project is designed to involve citizens in the management of the site as much as possible at different scales. There are monthly public co-governance assemblies and multiple activity groups that manage specific parts of the project, for example the DIY team, the gardening or the cooking teams.

The R-Urban project won the European NEB prize 'Runner up' in 2022. You can find more info on the dedicated [NEB prize website page](#).

III. WHAT IS THE NEW EUROPEAN BAUHAUS?

Is the New European Bauhaus for you?

The NEB is designed as a movement that **brings together stakeholders from the whole Built Environment ecosystem**, from citizens to private companies, from artists to institutions.

Business, associations, architectural practices, engineering offices, universities, industry, public authorities, can bring to practice a life-centric, inclusive, and sustainable approach by implementing the New European Bauhaus concepts.

Whatever your organisation's profile, implementing the NEB values and principles in your activities can help you to:

- develop a more meaningful work approach for you and your team, and increase your attractiveness to new talents,
- increase the quality of your next projects and innovations by jointly addressing the dimensions of aesthetics, inclusiveness, and sustainability,
- widen your position and network by developing new collaborations outside of your research field or core business activity,
- increase your reputation and visibility by joining the NEB community
- benefit from funding opportunities to support your transdisciplinary projects.

NEB allows the collective creativity of Europeans to be unleashed in inventing a better, fairer and more sustainable urban environment.

Robert Piaskowski, Plenipotentiary of the Mayor of Krakow for culture
at the NEB Festival

IV. HOW TO ACCESS/JOIN THE NEB COMMUNITY AND ITS RESOURCES?

Who is in the NEB community and how to join

The formal NEB Community is composed of:

- The (600+) [official partners](#), i.e. non-profit organisations with significant outreach capacity (such as umbrella associations or networks) that applied online and commit to organise NEB-related activities on a voluntary basis. They get access to a dedicated online platform that supports networking, community building and knowledge sharing.
- The [NEB friends](#), equivalent of the official partners, but for for-profit organisations and public authorities They can also access the dedicated online platform.
- Members of the [High-Level Roundtable](#), who have diverse cultural and geographical background from Europe, Asia and Africa. They contributed to the co-design phase of the NEB, and act as a sounding board for the European Commission.
- National [Contact Points](#) are people appointed in each EU country, who coordinate efforts to implement the initiative at national level.
- Winners and finalists of the NEB prizes (detailed further below).
- Partners of EC-funded NEB projects (detailed further below).

Depending on your profile, **you can therefore apply to join the community as *Partner*** (for associations, networks....) [here](#) or **as *Friend*** (for-profit entities, public authorities) [here](#).

IV. HOW TO ACCESS/JOIN THE NEB COMMUNITY AND ITS RESOURCES?

The different NEB Labs and their resources

The NEB Labs are 'laboratories of the future' launched by the NEB community and the EU institutions, that aim to explore and propose **concrete implementation tools** for NEB concepts and initiatives. Some NEB Labs are led by the EC (Commission-led labs), while other are driven by the NEB community (Community-led labs).



Credit: European Commission

IV. HOW TO ACCESS/JOIN THE NEB COMMUNITY AND ITS RESOURCES?

The next tables list all the NEB Labs created so far, with links to the web pages.

<i>Commission-led NEB Labs</i>	<i>Objective</i>
<u>Labelling strategy</u>	develops assessment frameworks to ensure projects are well-aligned with the NEB values.
<u>Regulatory analysis and experimentation</u>	analyses how the regulatory framework on European, national, regional or local level can support the development of NEB projects.
<u>Transforming places of learning</u>	connects transformation initiatives, concepts and practices making a difference in where and how people learn across Europe and beyond.
<u>Innovative funding</u>	<p>Crowd and public funding: explores innovative funding solutions that combine public and crowd funding for NEB initiatives.</p> <p>Philanthropy: explores ways to mobilise and combine private and public funding for NEB activities.</p>
<u>Actions for Ukraine</u>	<p>Housing urgency: to develop a typology of possible solutions to address the urgent housing needs of internally displaced people in Ukraine and Ukrainian refugees in the EU</p> <p>Circular housing: to contribute to the preparation of sustainable design and engineering in reconstructing Ukraine</p> <p>Capacity building: to set up a webinar training system for local municipalities in Ukraine.</p>

IV. HOW TO ACCESS/JOIN THE NEB COMMUNITY AND ITS RESOURCES?

Community-led NEB Labs	Objective
<u>The New European Bauhaus of the mountains</u>	seeks to improve the quality of the built environment, and citizens' life, in rural and mountain areas.
<u>Nordic carbon neutral Bauhaus</u>	is an open forum to discuss how architecture, design and art can help achieve a carbon neutral and inclusive way of building and living.
<u>NEB goes South</u>	connects six Southern European countries which join forces to improve education through architecture.
<u>NEB Stewardship Lab</u>	is an academic-led project that explores and enhances the role of higher education in the NEB initiative.

Note that the EC also intends to launch a [NEB Academy](#) to “*accelerate up-skilling and re-skilling in the construction ecosystem*”. This will be implemented through a **network of NEB Academy Hubs** and a dedicated online training platform. The first steps of this process have been launched, and the detailed procedure will follow in the next months.

IV. HOW TO ACCESS/JOIN THE NEB COMMUNITY AND ITS RESOURCES?

The NEB Dashboard mapping the NEB initiatives

The [NEB Dashboard](#) gathers information on all initiatives and entities that are part of the NEB community. It is a dynamic tool that enable to synthetise and filter data about the EC-funded NEB projects, the NEB prize winners, the NEB partners and friends, and the NEB high-level roundtable members.



Screenshot of an element of the NEB Dashboard (map of stakeholders & initiatives)

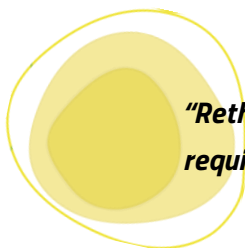
IV. HOW TO ACCESS/JOIN THE NEB COMMUNITY AND ITS RESOURCES?

The NEB festival

The festival is planned every two years, with a base in Brussels and satellite events across Europe and online. The festival is organised in a central theme and subtopics as part of the NEB core principles. The event has four main pillars:

- Forum - it is a New European Bauhaus platform for ideas exchange and discussions on NEB topics.
- Fair - it is an NEB exhibition on projects, prototypes and laboratories aligned with NEB values.
- Fest - it is a collective celebration of diversity, inclusivity, culture and arts, supporting radical and innovative ideas.
- Satellite events - they are independently organised initiatives and events in and outside Brussels connected with the core principles of New European Bauhaus.

You can propose events and/or promote your innovations by answering to the [calls for interest here](#).



“Rethinking our built environment means rethinking also our way of life, thus requiring a shift of mindset, a shift of values, in fact a civilisational shift”

Alexandra Misotaki, President of World Human Forum, at NEB Festival

IV. HOW TO ACCESS/JOIN THE NEB COMMUNITY AND ITS RESOURCES?

NEBULA peer learning activities

The NEBULA project is developing a set of peer-learning activities in relation to the New European Bauhaus, in particular:

- A series of webinars will be organised along 2023-2024 to exchange good practices and discuss recent NEB-related projects and initiatives
- A network of NEB Advisors is being set up, as contact points in different countries to provide you with updated information and opportunities related to the NEB.

Interested in joining these activities, either as participants or NEB expert?

Check [this webpage](#) and don't hesitate to [contact us](#)!

V. HOW DO I MAKE MY PROJECT/ SOLUTION “NEB BY DESIGN”?

The European Commission has started developing a set of tools to identify how the values and principles of the New European Bauhaus can translate into concrete projects.

The NEB labelling strategy, a Commission-led project (see previous Chapter), is currently designing some frameworks for recognising, characterising, and assessing quality in relation to the New European Bauhaus. These frameworks will be developed into self-assessment tools and used to define precise criteria for funding instruments or the labelling of projects and outputs.

The first output of this ongoing process is the NEB Compass, presented in the next pages.



“There is no technical innovation that is truly transformative without cultural innovation. The Arts are a powerful inspiring pathway to change, and the NEB is a unique opportunity to integrate them in our vision for a regenerative future.”

José Luis de Vicente, Head Curator, Sonar Festival, at NEB festival

V. HOW DO I MAKE MY PROJECT/ SOLUTION “NEB BY DESIGN”?

The Compass: laying the grounds for a NEB assessment framework

In 2023, the European Commission presented the [NEB Compass](#), as **“a guiding framework for decision and project makers wishing to apply the NEB principles and criteria to their activities.”**

It provides directions for the development of NEB projects and lays the foundation for more detailed assessment tools. This assessment framework will get tested through interactions with the NEB community and is therefore open to further evolutions.

The Compass sets out the key characteristics for exemplary NEB projects, and can be applied to a wide range of typologies: buildings, products, services, education models, etc. It builds upon the three NEB core values detailed in Chapter III, i.e., ‘beautiful’, ‘sustainable’, ‘together’, and the three working principles, i.e., ‘participatory process’, ‘multi-level engagement’ and ‘transdisciplinary approach’. For each value and for each working principle, the NEB Compass presents **three levels of ambition** to guide the design of a project, from ‘minimum requirements’ to an ‘ideal’ of fully accomplished NEB values and principles.

V. HOW DO I MAKE MY PROJECT/ SOLUTION “NEB BY DESIGN”?

The three ambition levels for the **NEB values** are synthetised in the next table:

Beautiful

Ambition I	Ambition II	Ambition III
Comfort, sensory experience, consideration of local particularities, aesthetics	Collective experience, sense of belonging, interactivity	Generation of new habits, consideration of user needs' evolution in future, positive impact on lives
<i>Example: The caves of Caño de Hierro</i>	<i>Example: The Multisensory Museum</i>	<i>Example: Baubotanik</i>

Sustainable

Ambition I	Ambition II	Ambition III
Resource efficiency, consideration of reparability, re-use, renewable energies, biodiversity	Application of circular economy principles, waste transformation, environmental impact assessment and mitigation	"Give back more than it takes", e.g. carbon storage in buildings, restoration of landscapes, enhancement of biodiversity
<i>Example: The BUGA Wood Pavilion</i>	<i>Example: The Vivihouse</i>	<i>Example: The Regeneration of beach dune systems</i>

Together

Ambition I	Ambition II	Ambition III
Equal and easy access, affordability, consideration of minorities' needs	Help overcome segregation, secure social justice and share resources	Promote new ways of living together, Societal development and collective growth
<i>Example: Cristobal de Moura Green Street</i>	<i>Example: The Municipal School of Architecture</i>	<i>Example: Borgo Sostenibile Figino</i>

V. HOW DO I MAKE MY PROJECT/ SOLUTION “NEB BY DESIGN”?

The three ambition levels for the **NEB working principles** are synthetised below:

Participatory process

Ambition I	Ambition II	Ambition III
Inform and consult stakeholders	Exchange and co-create with stakeholders	Empower stakeholders with decision making, ownership, governance
<i>Example: redesign of the Weimar Bauhaus Campus,</i>	<i>Example: co-design of the future of the Rivalta Duca Palace</i>	<i>Example: Arkki's Learning Via Participation Model</i>

Transdisciplinary approach

Ambition I	Ambition II	Ambition III
Diversity of disciplines and educational backgrounds, common problem definition between stakeholders	Knowledge creation, integration between results	Non-academic partnerships, public engagement, collaborative processes
<i>Example: transformation of a residential building</i>	<i>Example: the Barcelona Superblocks project</i>	<i>Example: Vienna University' The master's programmes</i>

Multi-level engagement

Ambition I	Ambition II	Ambition III
Inter-municipal cooperation, local networking, informal cooperation	Interactions across different levels, from institutions at EU, national levels, to local and regional authorities	Cross-sectoral cooperation, search for global impact
<i>Example: Santa Maria da Feira Community Arts Network</i>	<i>Example: The Immaginario Scientifico Science Centre</i>	<i>Example: The VITA Erasmus+ project</i>

V. HOW DO I MAKE MY PROJECT/ SOLUTION “NEB BY DESIGN”?

Example of project evaluation using the compass approach

The BUGA Wood Pavilion, in Stuttgart, Germany, is a wooden roof spanning 30 metres over a public event area, made with a minimum amount of material, and providing a unique architectural space. The pavilion was developed by an interdisciplinary team of architects, engineers, scientists, craftspeople, and public stakeholders. The building can be fully reassembled at a new location and completely recycled at the end of the structure’s life.



Source: <https://2021.prizes.new-european-bauhaus.eu/node/267666>

NEB values:

- Beautiful: AMBITION III: it offers a sensory experience to the users, with special attention to light, acoustics, atmosphere; it offers a high-quality collective experience, enabling the hosting of large groups of people.
- Sustainable: AMBITION III: the design considers recyclability, principles of re-use and circularity (can be re-assembled), and the timber material used has a negative footprint thanks to its responsible production process.

V. HOW DO I MAKE MY PROJECT/ SOLUTION “NEB BY DESIGN”?

- Together: AMBITION I: it is inclusive by design, can be publicly and openly accessed by everybody without distinction.

Working principles:

- Participatory process: AMBITION I: it was developed from the start with public representatives, local carpenters, and robotic integrators. Dialogue is ensured with the public.
- Multi-level engagement: no clear reference in the project's description.
- Transdisciplinary approach: AMBITION III: the project brings together academics, with industry and local crafts people through a co-design approach. The collaboration between robots and human brings novel possibilities in design, engineering, and fabrication.

The NEB self-assessment tool

Based on the assessment framework detailed in the NEB Compass, a (self)-assessment tool is under development. Work is currently ongoing to define criteria and indicators for the self-assessment methodology and to implement them into an IT tool. The initial application focus will be the assessment of buildings and other living space projects.

The tool should be available by June 2024, and will then undergo a testing phase with the community.

To keep yourself updated on the tool, [visit this link](#).

VI. WHERE TO GET FUNDING TO SUPPORT MY NEB PROJECT?

European funding programmes supporting NEB

Several EU programmes contribute to fund various NEB initiatives, the two main ones being Horizon Europe programme for research and innovation and the European Regional Development Fund (ERDF).

During the period 2021–2022, the dedicated calls added up to €106.3 million, and funded a large variety of projects: some large demonstrators¹, projects tackling urban challenges², an initiative to connect the digital and NEB communities³, co-creation and citizen engagement initiatives⁴, peer-learning activities, and projects driven by small businesses and start-ups⁵.

A dedicated [New European Bauhaus Mission](#) is under preparation to reinforce synergies between the various funding programmes. EU Missions are a new instrument by the European Commission to pool together various resources to tackle specific challenges. They operate a portfolio of actions such as research projects, policy measures or even legislative initiatives.

The EC is also exploring the **combination of crowdfunding and public funding** to support NEB projects. A dedicated '[NEB Lab Innovative funding – crowdfunding and public funding](#)' has been set up to investigate models of pooling private and public resources for NEB initiatives.

[Check this webpage](#) to review the NEB funding opportunities.

¹ See https://ec.europa.eu/commission/presscorner/detail/en/ip_22_2780

² See https://ec.europa.eu/commission/presscorner/detail/en/ip_23_3451

³ digiNEB.eu project

⁴ See <https://eit.europa.eu/news-events/news/eit-community-announces-new-european-bauhaus-citizen-engagement-projects>

⁵ See https://worth-partnership.ec.europa.eu/worth-partnership-projects/worth-ii-partnership-projects_en

VI. WHERE TO GET FUNDING TO SUPPORT MY NEB PROJECT?

The NEB prizes

The NEB Prizes reward existing projects and young people's concepts, as exemplary initiatives linking the three NEB values of sustainability, aesthetics, and inclusiveness. The Prizes are granted annually and award up to **EUR 30,000**. There are four application categories, reflecting the four axes of transformation described in section III, i.e.:

- Reconnecting with nature,
- Regaining a sense of belonging,
- Prioritising the places and people that need it the most,
- Shaping a circular industrial ecosystem and supporting life-cycle thinking.

Each category includes three competitions strands:

- "Champions", devoted to existing and completed projects with clear and positive results,
- "Rising Stars", focused on (more or less mature) concepts submitted by young talents aged 30 or less,
- "Education Champions" focusing on education and learning.

The evaluation process includes an eligibility check, a quality assessment, a public voting phase and final Jury assessment. The application process opens in December - January, and results are delivered in next May-June.

An evaluation committee formed by European Commission members is responsible for the final ranking and selection of the winners. The quality of the applications is assessed by external and independent experts. The maximum score is 100 and the minimum score for selection is 50. The criteria and points balance are shown below.

VI. WHERE TO GET FUNDING TO SUPPORT MY NEB PROJECT?

- Core values exemplary character (45/100 points),
- Three main working principles exemplary character (30/100 points)
- Innovative dimension compared with mainstream practices (10/100 points),
- Transferability and replicability high potential (5/100 points),
- The final 10 points are awarded according to category specific criteria.

This and more information you can find on <https://prizes.new-european-bauhaus.eu/>



Floating university Berlin, a nature-culture learning site located on a polluted rainwater retention basin servicing the former Tempelhof Airport, is among the 2023 NEB prize winners. Source of photo: [NEB prize page](#)

VI. WHERE TO GET FUNDING TO SUPPORT MY NEB PROJECT?

Visit the NEBULA funding toolbox to facilitate your fund raising

NEBULA is developing a [toolbox](#) to facilitate the access to funding and financing opportunities for innovators. This toolbox will include:

- Information to understand the financing landscape and refine your financing strategy
- Material to best pitch your company/project and show your strengths
- Tools to prepare and write your proposals to calls for funding
- And more!

Furthermore, NEBULA continuously identifies public and private funding and financing opportunities for the built environment. These opportunities are published on the [METABUILDING platform](#) and can be accessed by everyone.

Are you interested in fund raising but you cannot find any material that answers your questions in the Financing Toolbox? Please contact us!

A first version of the financing toolbox will be available on the [B4P website](#) by the end of July 2023.

VII. CONCRETE EXAMPLES OF NEB PROJECTS

In the next sections, you will find a series of projects and initiatives in line with the New European Bauhaus concepts.

They are organised along the three NEB core value with additional subcategories as follows:

"Beautiful":

- [Cultural Heritage](#)
- [Quality in architecture](#)

"Sustainable":

- [Regenerative design](#)
- [Recycling & Circular Economy](#)

"Inclusive":

- [Accessibility](#)
- [Inclusive and participatory methodologies](#)

For each example, you will find a brief description of the project objective and implementation, how it contributes to the three NEB values, which stakeholders were involved in the process, and some references.

Enjoy the trip!

BEAUTIFUL Cultural Heritage

GARE MARITIME

Brussels, Belgium

Project objective

Renovation of an old logistic building hub into a new office, retail food hall and public event building.

Project description

Gare Maritime was built between 1902 and 1907 and it was the biggest multimodal hub at the time to meet the growing logistic demand from Brussels industry. The building was designed by Frederik Bruneel, a railway engineer using a steel structure decorated in Art Nouveau style. The logistic Hub remained active until the unification of the European Market. In 2020, a major renovation was undertaken to transform the industrial building into a new office, retail food hall and public event building.

The architects Neutelings Riedijk Architects + Jan de Moffarts based the project on three principles. The first was to bring to life again the Art Nouveau structure with minimum interventions. The second was to create a cover city, a city inside the city encompassing 12 wooden built-in volumes for retail and offices. The third was to be sustainable and circular by using prefabricated wooden modules that can be disassembled and reused any time. The 280-meter-long and 140-meter-wide building accommodates one main hall where the food hall and the public event area are located and two side halls. The old Belgium Post building was also renovated and converted in meeting rooms.

Project information

Promoter: Extensa Group | Architect: Neutelings Riedijk Architects + Jan de Moffarts

Total floor area (in m²): 45 000 m²

Budget: more than 100 000 000 € | Completion: 02/06/2020

Recognition: [MIPIM Awards 2021 Special Jury Prize](#), [Prix Versailles](#), [ARC20 Architecture Award 2020](#), [Winner Belgian Building Awards - Utility Building](#), [Winner Belgian Timber Construction Award 2020 - non residential](#), [European Heritage Awards / Europa Nostra Awards 2021](#), [ULI Europe Award for Excellence 2021](#), [RES Awards 2020 - Best Commercial Development](#),

Reference: [Brussels Architecture Prize](#), [Altstadt](#), [Archdaily](#), [Frameweb](#), [Dezeen](#), [RIBA](#)

BEAUTIFUL Cultural Heritage

GARE MARITIME

Brussels, Belgium

Contribution to NEB values

- Beautiful:** Restoration of a heritage building, structure and façade, maintaining the Art Nouveau original features. The concept adds human scale to the building by fragmenting the space into smaller areas, such as the gardens, and offices, providing different sensory experiences and comfortable environment connected to the nature.
- Sustainable:** The Gare Maritime is energy and carbon-neutral and fossil-free. The 10,000 cubic meters of prefabricated Cross Laminate Timber enabled to save approximately 3,500 tonnes of CO² emission compared to concrete construction. The 17,000 square meters of solar panels on the roof produces 3,000 MWh of electricity per year, enough energy for 850 households. Two large tanks store rainwater used to irrigate the internal gardens and toilet flushing. Geothermal heat pumps warm up the timber pavilions and the food court floor. Overheat is avoided by the pixelized, six meters high windows on the upper levels. The window glass changes colour acting as a sunscreen while keeping transparency. The demountable and reusable wood construction adds to the circularity of the building.
- Together:** The main building hall creates a Spanish “rambla” like space, a place for everyone to stay and enjoy the events and markets.



Credit: Tim Fisher

BEAUTIFUL Cultural Heritage

HUB ANCIENT SAN PETERS' CLOISTERS

 Reggio Emilia, Italy

Project objective

Restoration of a Benedictine Cloisters of San Pietro and conversion to a cultural and open lab spaces.

Project description

Built in the early 16th century, the complex is divided into two cloisters, a small 15th-century style and larger mannerist style built subsequently. After the buildings served for several purposes including a military facility, they were acquired by the municipality and recognised as a heritage monument. The renovation design reconnected the building complex to the city by creating links to enhance the strategic position of the place in the urban fabric. Three interventions were conducted: the restoration of the renaissance area and conversion into a cultural centre; the demolition of military constructions and construction of the new Open Urban Lab building in the same footprint and the opening of the courtyard to the city creating public spaces for all. The project is an example of the adaptive re-use of heritage spaces. The city of Reggio Emilia managed a participatory process together with citizens, cultural associations, artists, social innovators, universities, research centres, and others to co-create the mission and activities of the Open Lab. The result was the definition of the strategic guidelines, management model and functions of the Open Lab that is managed by a local consortium of social cooperatives. Today the cloister host training and educational programmes related to the digital and creative industry, cultural events, and offers co-working spaces.

Project information

Promoter: Reggio Emilia Municipality | **Architect:** ZAA Zamboni Associati Architettura in collaboration with e Regional Office for Cultural Heritage Protection

Total floor area (in m²): 6.950 m² | **Budget:** € 3.950.000 | **Completion:** 03/2019

Recognition: The project was awarded the [Honorable Mention of Premio Gubbio 2021](#), and the [Honorable Mention of Piranesi Award 2019: Special Award Architecture of Workplaces Città di Oderzo](#), [Big See Architecture Award 2020](#).

Reference: [Simon Prize](#), [Chiostrì San Pietro](#), [Atlas Hubin](#), [Cultural Heritage in Action](#), [Zamboni Associati](#)

BEAUTIFUL Cultural Heritage

HUB ANCIENT SAN PETERS' CLOISTERS

📍 Reggio Emilia, Italy

Contribution to NEB values



Beautiful: Repurpose of a heritage building, connecting historical spaces to innovation hubs, creating a space for collective experiences and community interaction.



Sustainable: Adaptive reuse of a heritage building, return to the community a historical place increasing its lifespan.



Together: The co-design of the Open Labs created a program of activities for the cloister for cultural experimentation, social innovation, welfare and education, collaborative economy through participatory approach.



Credit: Kai-Uwe Schulte Bunert

BEAUTIFUL Cultural Heritage

MULTI-GENERATIONAL HISTORIC TOWN HOUSE

 Lodz, Poland

Project objective

Adaptive reuse of historical heritage buildings to accommodate a socially mixed and multigenerational community

Project description

The renovation encompasses three buildings: a town house, a Villa (listed building by the municipality) and an outbuilding. The Villa dates back to 1800's. The project includes the restoration of the Villa and the energy efficient refurbishment of the buildings delivering 16 residential units including 11 units adapted to people with special needs, one communal space and one commercial space.

The project idea for a multigenerational residence was submitted by the Forum for the Fatherland Association (a citizen group) to the citizens' budget competition and was selected by the municipality. The interdisciplinary group was supported by the Laboratorium Architektury 60+ (LAB60+) who conducted surveys on the best practices in other countries and interviews with potential residents to understand their needs and propose implementation principles of lifelong design.

The project was a pilot case on the EU funded project homes4life and received the project certification for housing schemes designed for long-term needs and requirement from the residents.

The project development was done in three stages: the building restoration and refurbishment, the development of a co-living rules for tenants and the organisation of educational programmes for social inclusion in the common area, led by the NGO "Socially involved".

Project information

Promoter: Municipality of Lodz

Architect: [DEMIURG](#), Arch. Krzysztof Kaczmarek

Total floor area (in m²): 1064 m² | **Budget:** €1.924 million | **Completion:** 2018

Recognition: Recognised as a good practice example by Cultural Heritage in Action

Reference: [Cultural Heritage in Action](#), [Atlas Hubin](#), [Homes4life](#), [LAB60+](#)

BEAUTIFUL Cultural Heritage

MULTI-GENERATIONAL HISTORIC TOWN HOUSE

📍 Lodz, Poland

Contribution to NEB values



Beautiful: Repurpose and rehabilitation of a historic heritage building into multigenerational social housing. The project renovates the community memory while introducing a diverse co-living community that values life-long needs and requirements.



Sustainable: The refurbishment and rehabilitation of the building applied energy efficient and lifelong principles to the design.



Together: The development idea was proposed by citizens and accepted by the municipality that conducted a participatory and multidisciplinary work, involving and listening to future residents needs implementing a lifelong approach design. The project promotes new way of living together, reducing segregation against the elderly or people with special needs, ensuring social inclusion.



Source: Cultural Heritage in Action

BEAUTIFUL Quality in Architecture

ROCHERSTOWN HOUSE

📍 Sallynoggin, Dublin, Ireland

Project objective

Deep retrofit of a two-storey social housing building to achieve passive standards while maintaining the architectural language in line with the surrounding built environment.

Project description

Phase two of the Rochestown house encompasses the renovation of two 1960's building blocks and a small terrace house in the walled garden of Somerton House. The re-using and re-adapting and densification programme aims to keep the highly appreciated calm neighbourhood, close to shops, bus services, and open spaces while improving and increasing the offer of social housing. The 12 bedsits units on the two-storey building were redesigned and transformed in 6 one-bedroom flats. The living room area was mirrored to the south facing façade, improving the solar gains. An additional floor was built providing in total 34 one-bedroom units. Communal facilities such as the dining areas, nurse stations and dining areas were provided. The building facade originally in concrete panels was added with 100mm of expanded polystyrene with a mineral render finish applied externally, combined with polystyrene beads pumped in the cavity wall. The double-glazed aluminium framed windows replaced the old single-glazed ones. A mechanical ventilation system combined with central mechanical extractor fans was installed to ensure minimal ventilation rates avoiding mould. The chimneys were closed to improve the airtightness in the flats. The central district heat system was upgraded with a condensing gas boiler in place of an old oil-fuel. The renovation project received the EnerPHit standard, a passive house certification for existing buildings.

Project information

Promoter: Dún Laoghaire–Rathdown Council

Architect: Dún Laoghaire–Rathdown Council Architects Department.

Total floor area (in m²): 503 m² two-storey sheltered housing scheme

Budget: €761,000 | **Completion:** December 2013

Recognition: HRIAI Awards-Sustainable Project (2017)

Reference: [ACE website](#) and [PassiveHouse+](#)

BEAUTIFUL Quality in Architecture

ROCHERSTOWN HOUSE

📍 Sallynoggin, Dublin, Ireland

Contribution to NEB values



Beautiful: There-use, re-adaptation and densification programme aims to improve but also maintain the neighbourhood quiet setting, and good location (close to shops, bus services, and open spaces) while increasing the offer of social housing. The project keeps the community sense of belonging respecting the memory and sensory experiences of the inhabitants.



Sustainable: Passive houses principles were applied in the renovation of the one-bedroom units. Double-glazed windows were installed, insulation was added to the facade, and the ventilation and heating system updated. The redesign of the units maximized the solar gains of the living room.



Together: Refurbishment works took in consideration the community desire to keep the building in the original setting, improving the living condition while keeping its affordability.



Credit: Donal Murphy Photography

BEAUTIFUL

Quality in architecture

KINDERGARTEN RIBNICA

 Ribnica, Slovenia

Project objective

The kindergarten was built with natural materials as an almost zero-energy building, to provide a quality space for learning and playing for 400 children in Slovenia.

Project description

The design project of Ribnica Kindergarten proposed by the architectural practice Arhi-tura won the Architectural Competition promoted by the Municipality in partnership with the Chamber of Architects in Slovenia. The 4,500 square meter is the biggest kindergarten in Slovenia, designed as a learning and playing space for 400 children. The building is low-energy, and partially financed by the European Regional Development Fund.

The design concept was based on the idea that a kindergarten should provide a safe and warm space for the children's development while enabling them to experience the world in a peaceful and relaxed manner. The 24 rooms in the U shape building provide two courtyards embracing the playground and green area. The building shape creates rooms that are more closed for the babies and toddlers as well as rooms less enclosed for the older children guiding them for a smooth discovery of the outside world.

The building has a zigzag implantation adapted to the child's size and site features. Each room had the orientation optimized to ensure the good exposure to the sunlight, good views and less noise.

Project information

Promoter: City of Ribnica

Architect: ARHI-TURA d.o.o.

Total floor area (in m²): 4.500

Budget: ca. 8 Mio. €

Completion: 2014

Recognition: Winner of the architectural competition promoted by the Ribnica municipality and the Chamber of architects in Slovenia.

Reference: [ACE website](#), [Archello](#), [Riko](#), [Domusweb](#), and [Archdaily](#)

BEAUTIFUL

Quality in architecture

KINDERGARTEN RIBNICA

📍 Ribnica, Slovenia

Contribution to NEB values



Beautiful: The building design follows the children's development providing enclosed, warm and safe rooms for toddlers and children allowing them also to explore to the outdoor world with high attention to their sensory experience.



Sustainable: The building design applied natural material and near zero energy principles.



Together: The building hosts 400 children, filling a gap for kindergarten spaces in the area.




Credit: Jorg Ceglar

BEAUTIFUL

Quality in architecture

GLEIS21

 Vienna, Austria

Project objective

The co-housing building aimed to create individual spaces, collective spaces and public areas in a sustainable and affordable construction. This was the starting requirement from the founding group of this co-living participatory community project with the motto “Setting the course together”.

Project description

The 5-storey residential building is the home of 47 adults and 20 children, doubling its population compared to project start. After 3,5 years of participatory involvement of the residents, the community now owns, operates, and manages the 34 flat units building with 4 commercial areas and an extensive communal area. The communal spaces in the rooftop encompass a shared kitchen, a children play’s room, a workplace for the association, a library, and a relaxation room. The commercial areas on the ground floor encompass a coffee place and a cultural centre. A workshop, a music studio/school and the laundry room are in the basement. The community also made available four solidarity flats for young refugees. The modular, prefabricated design provides a flexible floor plan easily adaptable to the residents’ needs. The triple-glazing wood frame contributes to minimizing energy consumption. The hybrid building construction encompasses cross-laminated timber panels, wood-concrete composite ceilings, external prefabricated wooden box walls, and pre-cast concrete and steel parts. The on-site assembled construction reduced the neighbours’ exposure to noise, and dust. It also minimised lorries in-flow in the site and speeded up the construction. Additionally, no scaffolding was needed on the façade execution.

Project information

Promoter: Schwarzatal Gemeinnützige Wohnungs- & Siedlungsanlagen GmbH

Architect: Einszueins architektur

Total floor area (in m²): 3.886 | Budget: Unknown | Completion: 2019

Recognition: The project was shortlisted at the European Union Prize for Contemporary Architecture – [Mies van der Rohe Award 2022](#).

Reference: [NEB prizes](#), [Einszueins](#), [miesarch](#), [architektur-aktuell](#), [schwarzatal](#), [Bigsee](#)

BEAUTIFUL

Quality in architecture

GLEIS21

Vienna, Austria

Contribution to NEB values



Beautiful: The building wooden façade provides a unique, warm and welcome appearance to the building in the urban landscape. The communal area provides spaces for collective experiences creating a sense of belonging. The coffee place, the music school and the cultural centre connect the community to the neighbourhood and is a point of attraction in the area.



Sustainable: The compact zero-energy design was built in hybrid wood-concrete-steel construction in a resource-saving manner. The use of prefabricated reduced the dust and noise during the construction. This choice also eliminated the use of scaffoldings for the façade construction, speeding up the construction and reducing the lorries travels to the site. The energy savings are also provided by the triple-glazed windows.



Together: The inhabitants were involved in the co-housing project from its inception to completion. The group of residents have a diverse background, with several skills and different needs. Collectively, they work to create an affordable housing community with a strong sense of belonging, ownership, and place-making.



Credit: Hertha Hurnaus

SUSTAINABLE Regenerative design

ERDEN Pure Walls

📍 Schlins, Austria

Project objective

Prefabricated unstabilised rammed earth building elements that are 100% natural and recyclable, contributing to control indoor climate.

Project description

Earthen construction has been highly esteemed for its exceptional compressive strength, ease of production and repair, abundant availability in raw form, remarkable acoustic absorption properties, humidity regulation qualities, significant thermal mass, and appealing aesthetics.

The prefabricated unstabilised (i.e., without cement) rammed earth walls developed by the ERDEN PURE project, when used as structural building elements not only reduce production costs by 50% but also shorten production time by 65% when compared to conventional rammed earth production. These 100% earth, 100% recyclable wall elements perfectly align with sustainable building principles, such as the cradle-to-cradle concept. Manufactured in formwork measuring 40-50 m in length and 1.4 m in height, a specialised machine is attached to the immovable side of the formwork which efficiently distributes the material into the formwork and then compacts the poured mixture. The machine pours a 12-15 cm thick layer of material, which is subsequently compressed to 8-10 cm, with adjustments made according to specific requirements for the desired finish and use. The rammed wall is then cut into large elements, which can be easily transported to the site and assembled like bricks.

Project information

Promoter: Lehm Ton Erde Baukunst GmbH

Completion: 2020

Recognition: Winner of the New European Bauhaus Prize 2021 – category 'Techniques, materials and processes for construction and design'

Reference: [NEB Prizes 2021](#); [ERDEN](#)

SUSTAINABLE Regenerative design

ERDEN Pure Walls

📍 Schlins, Austria

Contribution to NEB values



Beautiful: Rammed earth provides a distinctive material perception, offering a wide array of clay tones that can be utilized for walls.



Sustainable: Rammed earth mixture is inherently environmentally sustainable, primarily composed of excavated earthen material sourced from building sites. The main goal is not to enhance the sustainability of the building material itself, but to modernise the production and implementation processes, making it more competitive in the marketplace. Rammed earth construction brings numerous benefits to people by creating healthier spaces. Its passive temperature and humidity regulation capabilities help to reduce indoor temperature fluctuations, providing a more comfortable environment. Additionally, rammed earth's natural hygroscopic properties enable it to absorb moisture from the air, contributing to improved indoor air quality and overall well-being.



Together: The ERDEN Schule – the Earthen School initiative was launched to tackle the lack of knowledge in rammed earth construction and collaboration with local craftsmen encouraged to create meaningful spaces with earth that people want to live in.



Credit: ERDEN Pure Walls © European Union

SUSTAINABLE Regenerative design

THE CITADELLE DISTRICT

📍 Strasbourg, France

Project objective

The regeneration project of this industrial harbour district is designed to be low-carbon, resilient, and accelerator of societal transitions.

Project description

The Citadelle district, a peninsula within the city of Strasbourg, was a coal harbour in the past century. The regeneration project aims at meeting the increasing housing needs of the population while avoiding urban sprawl, by transforming the brownfield and industrial heritage into living spaces. The reduction of carbon footprint is considered not only in the construction phase, but also in the manner it can positively influence the lifestyles of inhabitants.

Thanks to the city's innovative financing mechanism, and in reverse to common practice, the green spaces were implemented before the construction of buildings, so the trees (and shade) could grow before the arrival of new inhabitants. 115 new trees destined to these spaces were transported to the site by barge, along 590 km of the Rhine River, enabling a reduced carbon footprint and better preservation of trees when compared to truck transportation. The planning process integrates bioclimatic specifications for more resilience: e.g., considerations of the prevailing winds in the area, the inclusion of green roofs, and the design of crossing apartments helps reduce the impact of summer temperatures in buildings; in winter, the limited height of buildings, the increased window surfaces and the careful selection of tree species helps maximise the light in lower-level building apartments. Participatory housing projects are also being launched, a first in France: 102 new housing units will be designed with their future occupants by 2030.

Project information

Promoters: Strasbourg city and Euro Metropole | Urban Planner: SPL Deux-Rives
Population: 1900 inhabitants, 300 workers | 8 000 m² of socio-economic activities
Recognition: [Démocrateur Ville Durable](#) 2022
Reference: [project website](#) and [Energycities](#)

SUSTAINABLE Regenerative design

THE CITADELLE DISTRICT

Strasbourg, France

Contribution to NEB values



Beautiful: The project builds upon the industrial heritage of the coal harbour and finds new ways to valorise the rivers banks for pedestrians and cyclers, while preserving the local businesses. The new roof shapes re-interpret the Alsatian architectural tradition.



Sustainable: local wood material and bioclimatic architectures are privileged in construction, and the river is used to ship the new trees planted in public spaces. The soil that has been polluted by the past industrial activities of the site will be treated, recycled fertilised onsite for its proper reuse, without any external removal or importation.



Together: calls for participatory housing projects are launched, in which inhabitants act as "self-promoters" and co-design specific lots of the private and public spaces.



Credit: Vincent Muller

SUSTAINABLE Regenerative design

BAUBOTANIK
Munich, Germany

Project objective

The research explores the possibility of using living trees as structural elements in architecture inspired by the living structures built by the Khasi and Jaintia people of Southern Meghalaya, Myanmar.

Project description

Founded in 2007, Baubotanik investigates multiple shapes and uses for living trees as load-bearing structures. The research explores the trees' attributes and junction technics to shape them into loading-bearing structures. Some experiments mix light weight structural elements, such as steel tubes, to create horizontal planes in the living structure.

Design with living plants breaks the contemporary logic of standardization in the construction. The uniqueness of each tree, the diversity of types, and the heterogenous and dynamic development throughout the life cycle (growth maturity and decay), add the dynamic layer of time to the design process.

The latest realisation of the research group, the Arbor Kitchen (photo), applies digital tools to collect data, and to design a shingle cover adapted to the tree's canopies, creating a sheltered area for eating and cooking. In the coming years, careful maintenance will guide and prune the branches to better mingle with the lightweight beams of the cover improving stability and increasing shade provided by the leaves.

Project information

Promoter: Prof. Dr. Ing. [Ferdinand Ludwing](#)

Research Group: Institute for Fundamentals of Modern Architecture, Stuttgart University

Recognition: Arbor Kitchen was longlisted in the small building category of Dezeen Awards 2022, [German Ecodesign award](#) (2017), prize for bold science, Ministry of Science of Baden-Württemberg (2016), Prize for exceptional scientific achievements, University of Stuttgart (2013)

Reference: [TUM](#), [Office for living architecture](#), [Archdaily](#), [Baubotanik](#), [future architecture platform](#) and [NEB](#)

SUSTAINABLE Regenerative design

BAUBOTANIK
Munich, Germany

Contribution to NEB values



Beautiful: The integration of architectural design with living nature provides a highly sensorial built environment. The sound of the leaves, the different colours of shade and the changes during the seasons offer a feeling of connection to nature, creating unique spaces that can be highly valued by the community.



Sustainable: The living structures are climate positive elements, absorbing CO₂, cooling through evaporation and improving the air quality. The construction avoids any structural intervention on the ground as the tree roots are the building foundation. The trees also contribute to biodiversity by attracting birds and other animals to the area.



Together: Participatory process and co-design are part of the regular care and maintenance of the living structures during their lifetime.



Arbor Kitchen, Credit: Kristina Pujkovic, TUM

SUSTAINABLE

Recycling and Circular Economy

VERTICAL ECOSYSTEM

📍 Malaga, Spain & Stockholm, Sweden

Project objective

Demonstration of a prototype of a Vertical Hydroponic Garden with Greywater Recycling Station in a hotel in Malaga.

Project description

The project showed how the combination of a greywater recycling station and a vertical hydroponic garden can be used to replace the freshwater normally used to maintain vertical gardens.

The treatments and reuse of greywater (shower and basins) from 2 hotel rooms are used to cover 100% of the water demand of the vertical garden. The system is composed of an automated and telematic management allowing phyto-irrigation with nutrient control to reduce human intervention.

The new approach combining greywater recycling with a vertical hydroponic garden allows the introduction of greening solutions in areas with "high" or even "very high" water stress.

Project information

Promoter: BIOAZUL, Spanish SME, in Malaga and BIOTONOMY, Swedish SME, in Stockholm.

Budget: €60,000

Completion: 2022

Recognition: Award of 1st GROW/HARVEST call (2021) in METABUILDING project

Reference: [video by Bioazul](#)

SUSTAINABLE Recycling and Circular Economy

VERTICAL ECOSYSTEM

Malaga, Spain & Stockholm, Sweden

Contribution to NEB values



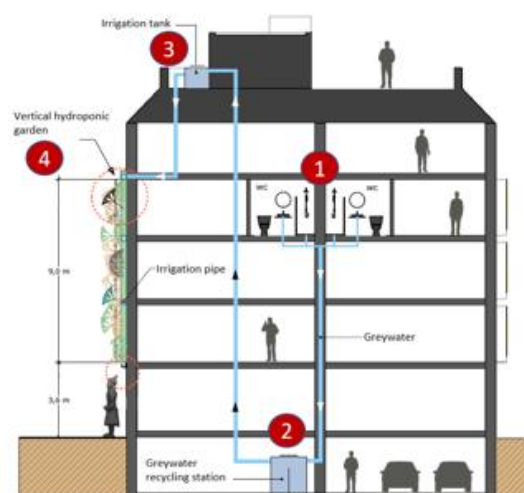
Beautiful: Increase of aesthetic and touristic value of urban hot spots and decreasing street noise for locals and visitors.



Sustainable: Reduction of heat island effect also in region facing "extremely high" water stress where this is even more needed and contribution to biodiversity in cities. Reduction by 3% of water consumption, 30% of greenhouse gas emissions, 30% of energy consumption.



Together: Collaboration of a specialist in water recycling with a specialist in green facades allowing hydroponic farming for users. Involvement on local government in granting the permit to install the prototype.



Credit: Bioazul

SUSTAINABLE

Recycling and Circular Economy

ENGHAVE CLIMATE PARK

 Copenhagen, Denmark

Project objective

Integration of high-capacity water harvesting systems into the park, that can be used both for daily recreational activities and in case of extreme rain events, contributing to the protection of the surrounding areas in the city.

Project description

The historical Enghave Park has been an important recreative space for citizens for more than 90 years. The park has undergone a transformation into a climate project featuring a water reservoir designed to handle large volumes of rainwater. This transformation has not only addressed water challenges but also introduced a range of novel recreational and interactive experiences, subtly fostering climate awareness in a positive manner.

A 550 m water wall is fully dedicated to extreme flooding situations: at massive cloudbursts, the gates in the wall are automatically raised and the park is filled with water. The daily rain is collected in the underground reservoir under the rose garden, filtered and reused for recreative purpose in a trench at the top of the wall encircling the entire park. The water is present in all spaces of the park and communicates the critical message of climate change.

Project information

Promoter: City of Copenhagen
Architects: COWI, THIRD NATURE and Platant
Budget: not communicated
Completion: 2019
Size: 35 000 m² | Cloudburst Capacity: 22,600 m³
Recognition: Finalist of NEB Prize competition 2021; City of Copenhagen's Building Prize 2020
Reference: [Application page](#) on NEB prize website, [Tredje Natur](#)

SUSTAINABLE Recycling and Circular Economy

ENGHAVE CLIMATE PARK

Copenhagen, Denmark

Contribution to NEB values



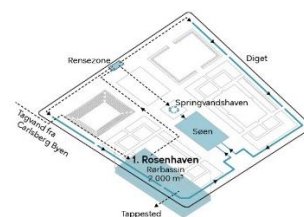
Beautiful: the water harvesting systems are fully integrated and respectful of the neoclassical aesthetic of the park. The solution shows how climate-resilience solutions can be implemented in co-existence with sensitive cultural heritage.



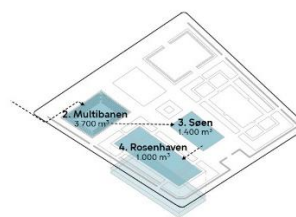
Sustainable: The park turns the water issue into a resource. By absorbing massive rains, it preserves the surrounding areas in the city. By harvesting rainwater, it protects the use of clean groundwater, a scarcer resource. The Climate Park is active 100% of the time, providing positive societal impact thanks to its user centric design.



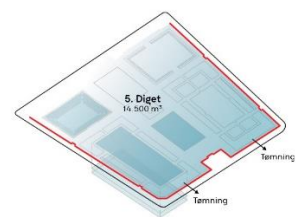
Together: The different spaces within the park were designed in collaboration with users. The various places for stay and rest enable spontaneous cross-cultural and cross-generational exchanges. By providing citizens with a circular approach in the landscape of their everyday life, it creates a sense of unified purpose.



EVERYDAY RAIN



10-YEAR RAIN EVENT



100-YEAR RAIN EVENT



Source: [TREDJE NATUR](#)

SUSTAINABLE

Recycling and Circular Economy

SEAFOOD FOR THOUGHT

📍 Madrid, Spain & Lisbon, Portugal

Project objective

Use of microalgae and municipal mussel waste to produce high-quality and highly aesthetical interior building products.

Project description

The project has developed a 3D-printable material consisting of a nature-based solution in the form of microalgae and recycled mussel waste which allows the fabrication of innovative, interior building products of variable shapes. Furthermore, the products do not contain pollutants and, therefore, contribute to an improvement of indoor air quality. The new product will contribute as well to the reduction of Construction and Demolition Waste, as it can be easily reused.

Besides the production of prototypes, a methodology with a challenge-based learning approach has been implemented under the educational program ESNEREGENERACCION to bridge the gap between academy and industry. And finally, a cross-sectoral regenerative-driven ecosystem was put in place to assure a distributed & collaborative value chain with a positive economic and social impact.

Project information

Promoter: SMARTINCIRCES, Spanish SME, in Madrid and a4f -algae for future, Portuguese SME, in Lisbon.

Budget: €60,000

Completion: 2023

Recognition: Award of 2nd GROW/HARVEST call (2022) in METABUILDING project




Reference: [video by Metabuilding](#)

SUSTAINABLE Recycling and Circular Economy

SEAFOOD FOR THOUGHT

📍 Madrid, Spain & Lisbon, Portugal

Contribution to NEB values

-  **Beautiful:** Solution permitting the 3-D printing of aesthetically appealing indoor construction elements in different geometries and shapes allowing to adapt to taste and need of inhabitants.
-  **Sustainable:** Valorisation of municipal waste from mussel industry enabling the fabrication of indoor building elements with a low carbon emission and easy reusability which allows a circular approach and helps to reduce Construction and Demolition Waste.
-  **Together:** Establishment of a distributed and collaborative value chain allowing cross-sectoral business and an educational methodology fostering cross-sectoral collaboration.



Credit: Smartincircles

TOGETHER

Accessibility

THE RIVERS OF SOFIA

 Sofia, Bulgaria

Project objective

To catalyse change by temporarily transforming the rivers and changing people's perceptions.

Project description

Sofia's urban riverbanks have potential to develop as public spaces but remain inaccessible and suffer from poor upkeep. The Rivers of Sofia Festival aimed to catalyse change by transforming the rivers and changing people's perception of them. With light architectural interventions and a cultural programme that engaged diverse social groups, the rivers turned into thriving public space. The Rivers of Sofia has since turned into a platform for collective urbanism and is leading long-term change. Access points made of scaffolding were installed, along with temporary stages and pavilions, and the space was adorned with lights, fabric, and art installations.

Project information

Promoter: The Collective Foundation, sponsorships from socially responsible businesses in Sofia and by the Municipality of Sofia.

Architect: Unknown

Total floor area (in m²): Unknown

Budget: 25,000€

Completion: 02/06/2020

Recognition: European Heritage, Europa Nostra Awards 2022, Grand Prix;

Finalist in the 2021 European Bauhaus Prizes

Reference: [2021 Prizes NEB](#), [European Heritage awards](#), [Europe Bottomup](#) and [The "Rivers of Sofia" festival starts by water \(postsen.com\)](#).

TOGETHER

Accessibility

THE RIVERS OF SOFIA

📍 Sofia, Bulgaria

Contribution to NEB values



Beautiful: Light structures seamlessly integrate rivers into urban fabric, creating a unified space for gatherings. Lively shows, floating sculptures, cozy relaxation, and vibrant promenades enhance the project's appeal.



Sustainable: The project minimizes its ecological footprint with temporary and reusable structures. It engages local artists and businesses, reducing travel. Through online engagement, partnerships, and workshops, it integrates Sofia's rivers into the city, fostering long-term change and sustainable growth.




Together: The festival creates an inclusive temporary public space for diverse groups. It offers activities for all ages and interests, connecting with the local market and engaging communities. Efforts target various demographics, fostering a shared sense of public space and inclusivity. The Rivers of Sofia continues as a platform for involving more people in city decision-making, demonstrating positive change in challenging areas.



Source: [Bulgarian Posten](#)

TOGETHER Accessibility

A SCHOOL FOR EACH AND EVERYONE

 Arvika, Sweden

Project objective

A public school designed with focus on pupils' wellbeing, integration, belonging, abilities, and all aspects of sustainability.

Project description

Arvika's new public school (900 pupils, ages 13-16) is designed with focus on pupils' wellbeing, integration, belonging and abilities. The project is a fine example of how high standards of sustainability (environmental, social, economic) and aesthetic values are linked with functionality. The school's universal design has diversity as a key principle and is based on scientific research in pedagogy, sociology, and psychology. The project's vision of a school for each and every one has governed the entire process. Close collaboration with the client, municipality, experts, staff, pupils, and citizens has led to the design of an inclusive environment that promotes belonging and a sense of security

Project information

Promoter: Arvika Fastighets AB (municipal company)
Architect: Alejandro M. Lucca, Andreas Svensson, Brunenberg & Forshed
Total floor area (in m²): 10870 m²
Budget: 33.094.202,06 €
Completion: Autumn 2021
Recognition: Finalist in the New European Bauhaus Prizes 2022
Reference: [2022 Prizes NEB, Swegon: Minnebergsskolan, Arvika](#) and [Se invigningen av Minnebergsskolan – Arvikas nya högstadium](#)

TOGETHER Accessibility

A SCHOOL FOR EACH AND EVERYONE

📍 Arvika, Sweden

Contribution to NEB values



Beautiful: The project's small-scale architecture, inspired by Arvika's forestry history, follows the neighbourhood structure. Wooden buildings with character-filled roofs create a secure inner courtyard. Natural materials and colours draw inspiration from surrounding forests, creating a harmonious and restorative environment for learning.



Sustainable: The centrally located school encourages the use of public transport and minimizes the use of virgin land. The wooden-framed buildings with wood facades reduce the carbon footprint. Roofs with vegetation manage stormwater and solar cells generate electricity. The school promotes rooftop farming, sustainability education and is environmentally certified according to the Swedish certification system



Together: Arvika Municipality's inclusive educational vision led to a school environment designed for all students. Universal design principles ensure inclusivity and diversity at every level. Barriers have been removed to promote participation and embrace diversity within the school community.



Source: Robin Hayes

TOGETHER Accessibility

THE MULTI SENSORY MUSEUM

📍 Eindhoven, Netherlands

Project objective

The people with disability experience have the potential value to enrich architecture in terms of designing and attributing meaning to multi-sensory environments, including them in the co-creation and design phases leads to the creation of a multisensory museum experience.

Project description

The Multisensory Museum is about seeing, feeling, smelling and hearing art. It is a project at the interface of research and architecture. It innovates architecture processes by developing a co-design method that engages people with disability experience and architects together in a creative endeavour. The result is an enticing space that draws the museum visitor in through all the senses (sound, touch, smell, vision, motion), giving an architectural expression to inclusion and dialogue, providing a new way of experiencing a museum visit. It has also served as a springboard for Dwarsverbanden (Delinking and Relinking) – the Netherlands' first multi-sensory collection presentation.

The project redefines the role of museum spaces, experimenting with the spatial impact on the experience of the artwork and embracing the bodily experience of the visitor.

Project information

Promoter: Van Abbemuseum via Architecture Grant Scheme
Architect: Marleen Hartjes, architect Thomas Dirrix, architect Peter -Willem Vermeersch, KU Leuven and other art and culture professionals from outside the museum
Total floor area (in m²): 9.825 m²
Budget: Unknown
Completion: 2016-2018
Recognition: Finalist in the New European Bauhaus Prizes 2021
Reference: [2021 Prizes NEB](#) and [Multisensory museum](#)

TOGETHER Accessibility

THE MULTI SENSORY MUSEUM

📍 Eindhoven, Netherlands

Contribution to NEB values



Beautiful: redefines traditional architecture by prioritising the experiential knowledge of individuals with disabilities and embracing a multisensory approach. Through inclusive co-design, it creates a museum space for engaging with art and promoting corporeal awareness.



Sustainable: The project demonstrates sustainability through its temporary nature, disassemblable materials, and circular building techniques. It promotes resource efficiency by reusing materials and incorporating recycled and recyclable options like felt and loam plaster.



Together: Social inclusivity is achieved by involving users with diverse disabilities in the design process. Their needs are incorporated, including improved wheelchair navigation, eye-level artwork, enhanced accessibility for sign language users, Braille title cards, tactile drawings, emotional landscapes, and scent journeys.



Source: Van Abbemuseum, by Joep Jacobs

TOGETHER

Inclusive & participatory methodologies

GARDENS OF THE FUTURE

📍 Nicosia, Cyprus

Project objective

Become a catalyst of sustainable action and the development of a circular economy model by creating a network of urban spaces embracing the concepts of zero waste, community empowerment and education.

Project description

Gardens of the future is a collective initiative aiming at enabling locals to become agro-entrepreneurs and create a network of communal gardens based on responsible farming and the use of new, affordable technologies and innovation. Starting with a pilot garden in an abandoned area of Nicosia, the project aims to become a catalyst for sustainable action and inclusiveness across the country by strengthening social cohesion among neighbours and communities and empowering locals to upscale the initiative.

Project information

Promoter: A team of challengers, pioneers and social entrepreneurs (leadership team)
Architect: Operation team formed by architects, agronomists, urban planners and social media consultants
Total floor area (in m²): 500m²
Budget: unknown
Completion: 2021 (pilot programme)
Recognition: 2020 National winner of [Climathon](#); 2021 Winner of [Pusulas Competition](#); 2022 Public vote Winner of the [New European Bauhaus Awards](#),
Reference: [2022 Prizes NEB](#), [Gardens of the Future – Building Communities](#), [Gardens of the Future \(cypruspusula.org\)](#) and [Garden of the Future Implementation Guide](#)

TOGETHER

Inclusive & participatory methodologies

GARDENS OF THE FUTURE

📍 Nicosia, Cyprus

Contribution to NEB values



Beautiful: The garden's design involved collaboration between experts and the local community, following a Do It Together approach. It embraced sustainable solutions and a modular, human-centric approach. Locally sourced and recycled materials were used, along with digital fabrication technologies.



Sustainable: The garden's modules follow the "building from waste" philosophy, creating a healthy environment for plants and people. It supports green and social entrepreneurship, promotes hands-on educational activities, and focuses on improving well-being. The project combines sustainability, entrepreneurship, and education in a pleasant and impactful garden space.



Together: Garden of the Future unites diverse social groups, fostering inclusivity and knowledge sharing. The project aims to spread care and hospitality ideas, expanding its impact to other communities. With over 30 partner organizations, 2,000 people, and 600 volunteers, it has created a collaborative community for collective growth at its premises.



Source: [Gardens of the Future](#)

TOGETHER

Inclusive & participatory methodologies

BALENO COMMUNITY CENTER

📍 Verona, Italy

Project objective

Renovate the building by a co-design process and use the building as “community home” for social uses.

Project description

The building itself is a symbol for the local community. Historically, it was a market hall, then turned into a supermarket, then abandoned and now being reclaimed by a citizen-led initiative. Creating a new hub of aggregation and urban development contributes to reactivating the function of the local market, strengthening the socio-cultural fabric of the neighbourhood, generating proximity services with citizens, activating and engaging citizens and promoting the liveability of the district.

The building renovation project aimed to replan the space organizing a polyfunctional space open to the community for public and private events, hosting local associations. A pillar of the renovation strategy was to boost an inclusive approach based on involvement of different stakeholders: citizens, local cultural associations, building professionals and researchers. Following the social, environmental, and economic sustainable criteria and leveraging on co-design approach, the refurbishment pursued a high degree of flexibility and resilience and the Nearly Zero-Emission Building (NZEB) target.

Project information

Promoter: Orti di Spagna district committee, Energie Sociali, Cocai, Lino's and co., Aveprobi, the Municipality of Verona and the local public asset manager (AGEC).

Technical support: by EURAC research.

Total floor area (in m²): 330 m²

Budget: unknown

Completion: 2022

Recognition: Submitted for the New European Bauhaus Awards awards in the category of "Preserved and transformed cultural heritage".

Reference: [Project webpage](#) and [location](#)

TOGETHER

Inclusive & participatory methodologies

BALENO COMMUNITY CENTER

Verona, Italy

Contribution to NEB values



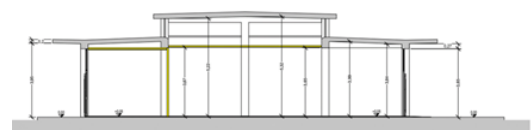
Beautiful: High aesthetic value identified by a co-design process and based on sustainable criteria (environmental, technical, social).



Sustainable: The renovation strategy paid particular attention to environmental issues, supporting a circular approach and the use of natural and local materials. The project includes bio-based insulation, complemented by passive solutions as natural ventilation and "trombe wall" technology applied to the roof, green walls, based on an innovative prefab modular system, use of natural material where possible, and reuse of rain and wastewater for irrigation, on-site electricity production by renewable energy sources such as installation of photovoltaics panels on the roof, electrification of HVAC systems, which are selected among low GWP solutions.



Together: The building renovation allowed to regenerate the neighbourhood by increasing the civic sense, activating the trust in public and social change, improving the common goods as well as the collective well-being and triggering new local and urban development processes in the relationship with the public authority. It was feasible due to the determination of people willing to reclaim the abandoned space in the neighbourhood and strengthening the community spirit, launching an innovative co-design and co-planning process. It was supported by a crowdfunding model, financing by local banking foundations and participation in private tenders. The space is now used by many people who propose activities and participate in different initiatives, ensuring that the building is increasingly more open and managed by citizens.



Credit: [EURAC](#)

TOGETHER

Inclusive & participatory methodologies

LIMERICK CITIZEN INNOVATION LAB

 Limerick, Ireland

Project objective

Implement in the city engagement and participation processes which empower and support citizens through meaningful climate action.

Project description

The Citizen Innovation Lab is a physical and digital space that aims to empower citizens to take part, navigate and co-create together to help Limerick become a climate-neutral city by 2050 and shape a sustainable future for the city. A future where Limerick can become more sustainable, beautiful, and inclusive. It is conceived as a place for observation, co-creation, and experimentation. Through the Citizen Innovation Lab, people can work together to explore local responses to the challenges we face, like climate change. The project will establish a "World Class Waterfront" in the heart of Limerick that will deliver key enablers including development of strategic cycleway and pedestrian networks, encourage inner city development and regeneration and diversify the existing communities in the city. This University-City led Citizen Innovation Lab is a core instrument in the upgrading and evolution of co-design process to incorporate the NEB principles and resources.

Project information

Promoter: Limerick City and County Council and the University of Limerick.

Total floor area (in m²): 385 m²

Budget: €30,000 fit out.

Completion: 2022

Recognition: [ENOLL Accredited](#)

Reference: [Limerick Citizen Innovation Lab](#) and [+CityxChange project](#)

TOGETHER

Inclusive & participatory methodologies

LIMERICK CITIZEN INNOVATION LAB

 Limerick, Ireland

Contribution to NEB values



Beautiful: The proposal is based on an overall planning and urban design framework in the context of the Limerick 2030 Economic and Spatial Plan. It has an acute focus on compact growth and mixed-use brownfield regeneration, adaptive re-use, reversal of vacancy and dereliction and sustainable travel.



Sustainable: SmartLab (SEAI funded Smart Building Living Lab) works directly with end users to examine the financial and technical barriers to the deployment of smart technologies in Ireland's building stock. The deployment of sensors in buildings and the development of DIY toolkits for the sustainable upgrade of buildings are key outcomes of the project.



Together: Since 2009, the co-design methodology has been refined and resulted in the establishment of FabLab Limerick. The Citizen Innovation Lab is being extended beyond discrete co-design processes and events, creating a collaboration platform, which integrates citizen-sourced data to support Limerick's transformation. This will further feed the Digital Twin and participation tools, as well as acting as a repository of citizen interactions with the Lab.



Credit: [+Limerick Citizen's Innovation Lab](#) - [+CityxChange](#)

CONTACT US

If you are interested in joining the activities developed by the NEBULA project:

Contact us: contact-DI@dowel.eu

Visit the NEBULA project page: www.built4people.eu/nebula/

Visit the Built4People website: www.built4people.eu

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