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White Paper: Designing the perfect New European Bauhaus neighbourhood

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SHAFE Foundation

Smart Healthy Age-Friendly Environments

DESIGNING THE PERFECT NEW EUROPEAN BAUHAUS NEIGHBOURHOOD

New European Bauhaus

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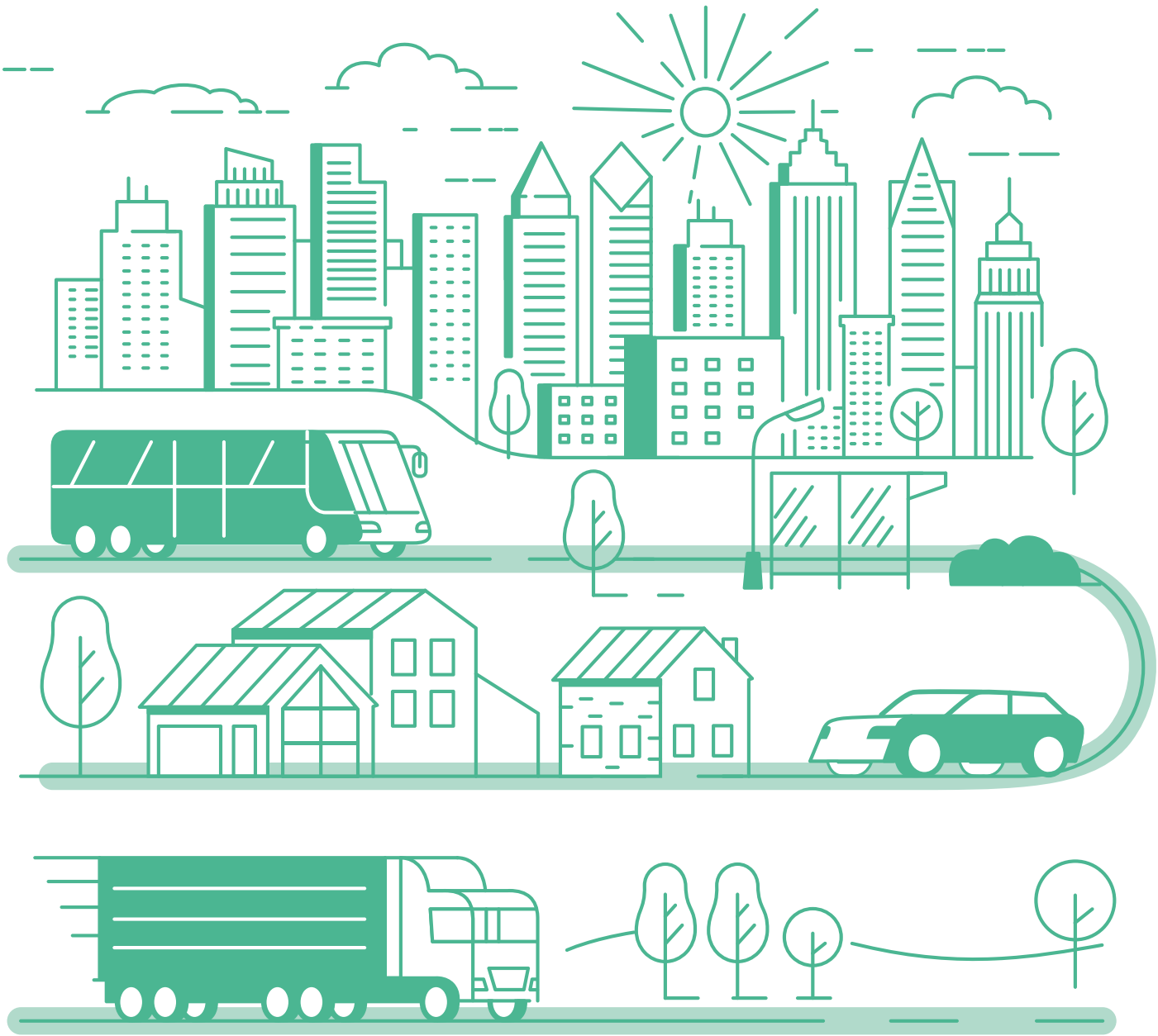


Executive Summary

The concept of Smart Healthy Age-Friendly Environments (SHAFE) emphasises the comprehensive person-centred experience as essential to promoting living environments.

SHAFE takes an interdisciplinary approach, conceptualising complete and multidisciplinary solutions for an inclusive society. From this approach, we promote participation, health, and well-being experiences by finding the best possible combinations of social, physical, and digital solutions in the community.

This initiative emerged bottom-up in Europe from the dream and conviction that innovation can improve health equity, foster caring communities, and sustainable development. Smart, adaptable, and inclusive solutions can promote and support independence and autonomy throughout the lifespan, regardless of age, gender, disabilities, cultural differences, and personal choices, as well as promote happier and fairer living places.

SHAFE has a particular focus on the following aspects, fully in line with the New European Bauhaus values:

- Focus on people and places.
- Improvement of citizens' capacities and asking for their engagement.
- Improved alignment between the built and the digital environment for the benefit of residents.
- Focus on inclusiveness and a lifelong approach.
- Focus on coordination and implementation of practical examples in communities.

The New European Bauhaus initiative gathers "beautiful, sustainable, and inclusive projects and ideas" to inspire a positive transformation around us. The New European Bauhaus 2024 Festival took place between 9-13 April. "Designing the perfect New European Bauhaus neighbourhood: New European Bauhaus meets SHAFE" was a Satellite Event of the Festival, held as an online workshop, organised by the SHAFE Foundation on April 9th, 2024.

The event was a fully interactive event, with participants representing different stakeholder groups. Its goal was to define the requirements for a New European Bauhaus neighbourhood of citizens, taking advantage of the long-term co-creation approaches and experience of SHAFE networks and COST Action NET4Age-Friendly.

In the event, participants focused on a fictional European family named Garcia, consisting of grandparents, parents, and children. Similarly to other families, they have several strengths and happy moments and challenges, such as cognitive decline, learning disabilities, mobility issues, loneliness, gestational diabetes and some mental health problems. These situational challenges show the potential needs of a European family. They can help the stakeholders with innovative ideas and develop suitable solutions to their challenges.

The Garcia family lives somewhere in one of the European neighbourhoods and faces several social and physical challenges that occur in most European families. This raises the following questions:

- What is necessary for the Garcias to continue living and participating in the neighbourhood?
- How should the neighbourhood be designed to promote a healthy lifestyle and well-being of the Garcias?

- Which facilities comprise the neighbourhood's sustainable housing and infrastructure to support mobility and cognitive challenges?
- How are topics such as diabetes and mental health issues in architecture and digital solutions?
- How can a healthy lifestyle be supported and green behaviour promoted?

In this White Paper, "New European Bauhaus meets SHAFE," we compiled practical answers to the questions above, drawing from the knowledge and experience of about 50 representatives of citizens, businesses, public administrations, non-governmental organisations, and science/ academia who participated in the webinar.

The White Paper summarises explanations of the main aspects of the New European Bauhaus, Smart Healthy Age-Friendly Environments (SHAFE), and citizens (the Garcia Family as an example). In this context, it addresses elements of the discussion on the selected inspiring projects and ideas of the New European Bauhaus and the requirements. It provides recommendations to address the challenges of each individual member of the Garcia Family, according to their specific needs.

Figure 1: New European Bauhaus: The Festival. Graphic banner

1. Introduction

1.1 The New European Bauhaus

In 2020, the European Union launched the New European Bauhaus initiative. This initiative connects the European Green Deal to citizens' daily lives and living spaces. It calls on all Europeans to imagine and build together a sustainable and inclusive future that is beautiful for our eyes, minds, and souls, thus enhancing people's quality of life and promoting balanced and sustainable urban and rural development throughout Europe.

By creating bridges between different backgrounds, cutting across disciplines and building on participation at all levels, New European Bauhaus inspires a movement to facilitate and steer the transformation of our societies along three inseparable values:

- **Sustainability**, from climate goals to circularity, zero pollution, and biodiversity.

Central to the ethos of the New European Bauhaus is the commitment to sustainability across various dimensions. From climate goals to circularity, zero pollution, and biodiversity, the neighbourhood will serve as a model of environmentally conscious urban development. Buildings will be designed with energy-efficient materials and renewable energy systems, minimizing carbon footprint and resource consumption. Green spaces, urban forests, and sustainable water management systems will enhance biodiversity and mitigate the effects of climate change. Circular economy principles will be embraced, promoting waste reduction, reuse, and recycling to create a closed-loop system that minimizes environmental impact. Through these efforts, the neighbourhood will contribute to the achievement of Europe's sustainability objectives while providing a healthy and resilient living environment for its residents.

- **Aesthetics**, quality of experience and style beyond functionality.

In the pursuit of designing the perfect New European Bauhaus neighbourhood, it is essential to go beyond mere functionality and prioritize aesthetics, sustainability, and inclusivity. Through the lens of Smart Healthy Age-Friendly Environments (SHAFE) principles, this proposal aims to integrate these essential elements into the fabric of the neighbourhood, fostering a vibrant, sustainable, and inclusive community.

- **Inclusion**, from valuing diversity to securing accessibility and affordability.

Inclusivity lies at the heart of the New European Bauhaus vision, encompassing diversity, equality, accessibility, and affordability for all. The neighbourhood will celebrate and embrace cultural diversity, fostering a sense of belonging and mutual respect among its inhabitants. Universal design principles will be integrated into the built environment, ensuring that spaces and amenities are accessible to people of all ages, abilities, and backgrounds. Affordable housing options will be prioritized, enabling socio-economic diversity and social cohesion within the community. By valuing inclusivity as a fundamental principle, the neighbourhood will strive to create a welcoming and equitable environment where every individual can thrive and contribute to the collective well-being.

The New European Bauhaus neighbourhood will prioritise aesthetics and the quality of the living experience, recognizing the importance of beauty and pleasure in enhancing well-being. Architectural designs, landscaping, public art installations, and urban furniture will be curated to create visually appealing and harmonious spaces that evoke a sense of joy and

inspiration among residents and visitors alike. By integrating elements of art, culture, and design, the neighbourhood will offer an immersive and enriching sensory experience that elevates the human spirit.

New European Bauhaus collects inspiring projects and ideas to support the initiative and positive transformation around us. The examples vary from houses, community centres, outdoor spaces and playgrounds, arts, culture and creativity, furniture and gardens.

Figure 2: New European Bauhaus Inspiring projects and ideas.
Source: https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas_en. © European Union

1.2 Smart Healthy Age-Friendly Environments (SHAFE)

Smart, adaptable and inclusive solutions can help improve and support independent living throughout life, regardless of age, gender, disabilities, cultural differences and personal choices. SHAFE presents a holistic approach to optimising social and physical environments supported by digital tools and services. It provides better health and social care, promoting independent living, equity, and active social participation. Some challenges of different sectors, such as ICT, the building industry, urban planning, health and social care, and citizens and their communities, are interlinked. Good and qualitative solutions look at the challenges from different perspectives (social, building, digital). Responding to these challenges will foster awareness and support for creating and implementing smart, healthy and inclusive environments for present and future generations. These environments will enable the generations to learn, grow, work, socialise and enjoy a healthy life, benefiting from using digital innovations, accessibility solutions and adaptable support models in the European context.

Figure 3: The areas composing Smart-Healthy Age-Friendly Environments

1.3 The challenge

SHAFE focuses on the following aspects, fully in line with the New European Bauhaus values:

1. focus on people and places,
2. improve citizens' capacities and involve them in designing and decision-making,
3. an improved alignment between the built, social and digital environment to benefit people living in them, and
4. the realisation of inclusiveness and a lifelong approach.

This White Paper's challenge is to show how the inspiring projects and ideas of the New European Bauhaus meet the challenges of European citizens, such as the Garcia Family.

How does the New European Bauhaus focus on people and places?

The New European Bauhaus strongly emphasises human-centred design principles, ensuring that the built environment is tailored to the needs and preferences of individuals and communities. By prioritizing human well-being and cultural identity, the New European Bauhaus seeks to create spaces that foster a sense of belonging and connection among residents. This involves integrating elements of cultural heritage, local traditions, and community input into the design process.

How do the inspiring projects and ideas improve citizens' capacities and involve them?

Inspiring projects and ideas associated with the New European Bauhaus aim to empower citizens by enhancing their capacities and actively involving them in the design and decision-making processes. This may involve initiatives such as participatory design workshops, community consultations, and co-creation platforms, where citizens can contribute their ideas, expertise, and aspirations to shaping their built environment. By fostering a sense of ownership and agency among citizens, the New European Bauhaus encourages active engagement and collaboration in the transformation of their living spaces.

How can an improved alignment between the built, social, and digital environment be achieved?

An improved alignment between the built, social, and digital environments is essential for creating cohesive and sustainable communities. The New European Bauhaus seeks to achieve this alignment by integrating innovative technologies, sustainable design practices, and social cohesion initiatives into urban planning and development processes. By leveraging digital tools and platforms, enhancing social infrastructure, and promoting green and inclusive urban spaces, the New European Bauhaus aims to create environments that enhance the quality of life and promote well-being for all residents.

How can inclusiveness and a lifelong approach be realised?

Inclusiveness and a lifelong approach are fundamental principles of the New European Bauhaus, ensuring that the benefits of design innovation are accessible to all members of society, regardless of age, background, or ability. This involves creating environments that are barrier-free, inclusive, and supportive of diverse needs and lifestyles. By prioritising accessibility, affordability, and social equity, the New European Bauhaus aims to create communities where everyone can participate fully and thrive throughout their lives.

To achieve answers to these questions, the SHAFE Foundation organised an online meeting on April

9th, 2024, with representatives of five stakeholder groups from multiple European countries:

- Citizens
- Business
- Science and academia
- Public authorities
- Non-governmental organisations

Selected participants are also listed as co-authors of this White Paper at the end of the text.

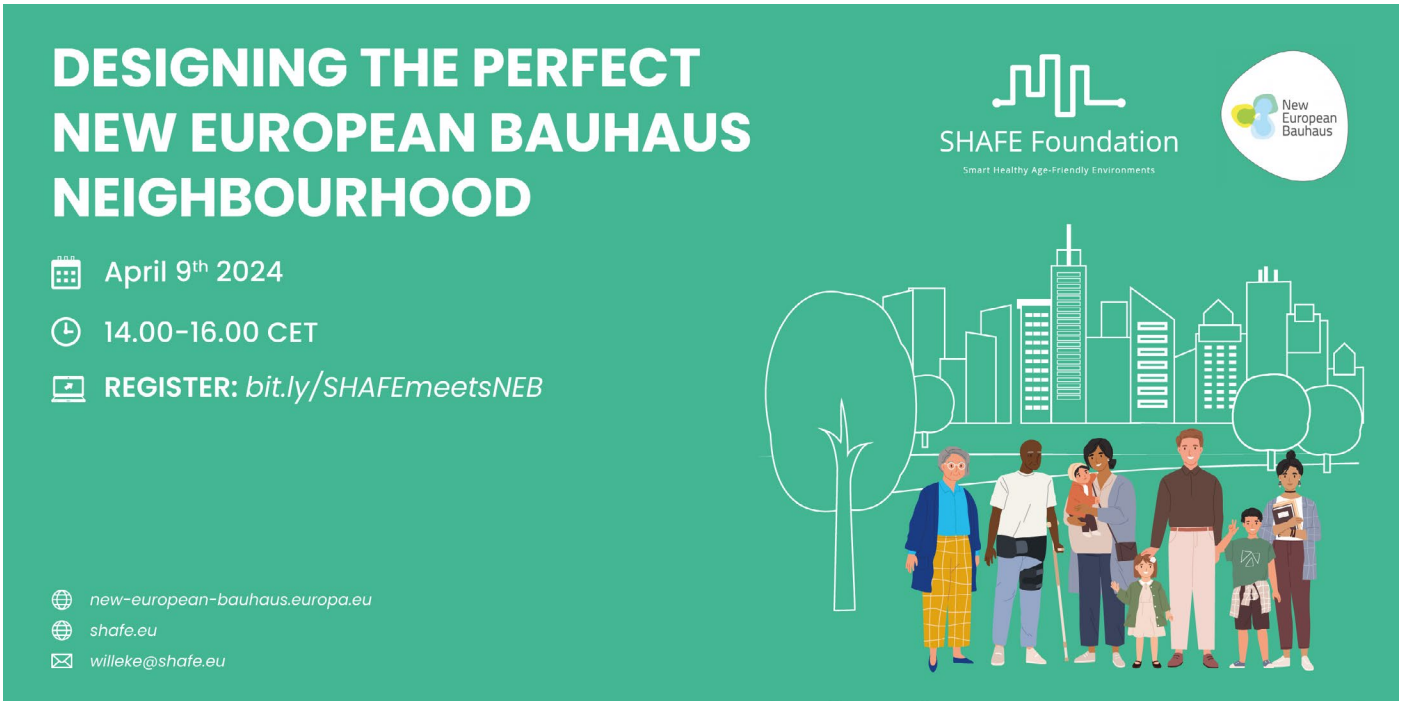


Figure 4: Designing the perfect New European Bauhaus neighbourhood - Banner

2. Participatory approach and discussion

2.1 The SHAFE Satellite Workshop at the New European Bauhaus Festival 2024

During the past five years, the SHAFE Foundation crafted a fictional Garcia family with eight family members based on extensive co-creation work with citizens on smart, sustainable and inclusive environments. Garcia is the most common surname in Europe , and its family members are designed as so-called personas , representing the diverse European population currently living in different European homes or neighbourhoods. In short, the Garcia family members represent the following challenges (from left to right):

- Grandma suffers from mild cognitive impairment with short-term memory loss.
- Grandpa has mobility issues.
- Mother and little Maria: Mother tends to be overweight, and Maria cannot walk yet.
- Sofia suffers from bad eyesight.
- Father is burnt out due to his job.
- Francesco has mental health issues.
- Christina has just divorced and returned home.

Figure 5: The Garcia family members

Using the New European Bauhaus inspiring examples of smart, sustainable housing, the workshop created a collective collage of the New European Bauhaus neighbourhood, including appropriate elements, such as the RecyclingHaus, ELEMENTerial bus stop, or Sara culture centre, further described in the upcoming sections.

The participants were presented with an introduction to SHAFE and the New European Bauhaus, followed by the goals and methods of the workshop, including a pre-selection of 16 inspiring projects and ideas. The participants were invited to select their preferred New European Bauhaus examples. The participants were then divided into break-out rooms, each dedicated to one of the five examples which received the highest score. Each group built collaboratively, with the support of a Mural Board, the conditions, successes and barriers to health, well-being and inclusion.

Structure of the meeting:

1. Introduction of the Garcia family personas, including their context of happiness and challenges.
2. Introduction of smart healthy inclusive age-friendly environments (SHAFE).
3. Introduction of the New European Bauhaus inspiring examples.
4. Poll to select the five most inspiring examples.
5. Five break-out rooms to discuss the requirements to offer a home to the Garcias.
6. Plenary meeting to present the outcomes and define the roadmap ingredients.

2.2 The New European Bauhaus inspiring projects and ideas

In March 2024, the New European Bauhaus published 77 inspiring projects and ideas on its website. A first selection based on the titles of the projects and ideas resulted in 38 examples that would fit as features in a neighbourhood. This selection was narrowed down to physical places only: houses, outdoor spaces, and centres to enable voting and have sufficient material for inspiration and discussion. This resulted in four houses, eight centres, and four outdoor spaces, presented below.

Houses

Guesthouse RoSana (DE)
Zero Waste House (SI)
viviHouse (AT)
RecyclingHaus (DE)

Figure 6: New European Bauhaus inspiring houses

Centres

Elektrownia Powiśle (PL)
Sergelhuset, S-building (SE)
Downtown cultural centre (EE)
The Distillery (CZ)
Designing for our children's future (LU)
Sara culture centre (SE)
Jemtelandsgade (SE)
UNESCO site of Ivrea (IT)

Figure 7: New European Bauhaus inspiring centres

Outdoor spaces

Common Ground (PL)
Parkly (FI)
Xifré's Rooftop (ES)
Karen Blixens Plads (DK)

Figure 8: New European Bauhaus inspiring outdoor spaces

The projects were introduced using the New European Bauhaus descriptions. After the introduction, a poll was launched, in which participants could choose 2 or 3 examples they wanted to discuss further in the break-out sessions. This resulted in the following list of winning examples:

- Designing for our children's future
- RecyclingHaus
- ViviHouse
- Zero waste house
- Xifré's Rooftop

The examples and the possible social, physical and technological requirements to house the Garcia family were discussed in five virtual break-out rooms. Each break-out room was assigned a moderator and a notetaker who facilitated the discussions in a dedicated online board so the participants could work on the requirements collaboratively.

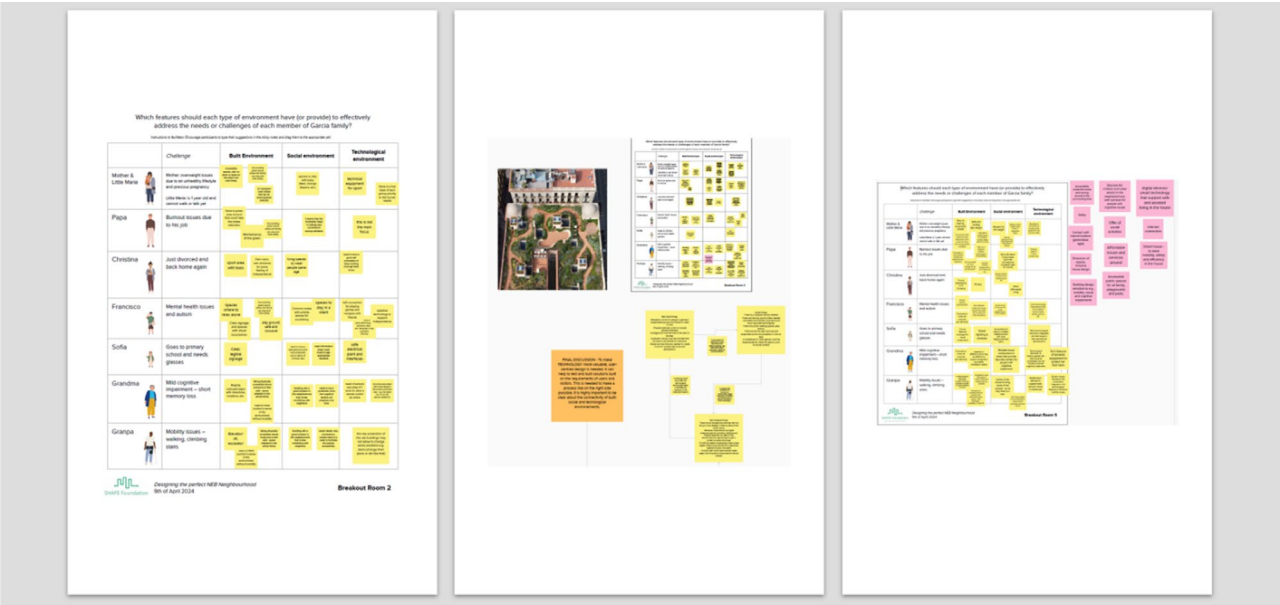


Figure 9: New European Bauhaus Satellite event, discussion in break-out rooms – Mural boards

3. Results and proposed solutions

This section highlights the main outcomes of the discussions in the break-out rooms on each New European Bauhaus selected project. The section continues by describing the needs and requirements of each member of the Garcia family gathered in the five break-out rooms.

3.1 Requirements for the design of the perfect Neighbourhood

New European Bauhaus inspiring example: RecyclingHaus (DE)	Short description and key comments from the discussion

Figure 10: New European Bauhaus inspiring example: RecyclingHaus (DE). Source: https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas/recyclinghaus_en

The RecyclingHaus is built of reused, recycled, and recyclable components. Its inclusiveness is based on a dialogue-centred design and building approach, and it was co-created with clients, artisans, and architects. Another factor is affordability, followed by a flexible floor plan that adjusts to future residents' physical and cognitive capacities.

- The house might be too small to comfortably accommodate the eight Garcia family members.
- Three-floor planning is not practical for people carrying children, people with physical constraints and small children.
- Neurodiverse design should be considered, e.g., adding soft materials, removing mirrors, avoiding floor changes or making stairs safely.
- Concerns about the financial affordability of such a house to a typical European family.
- Importance of a supportive community and public transport opportunities for all family members.

New European Bauhaus inspiring example: Zero Waste House (SI)	Short description and key comments from the discussion

Figure 11: New European Bauhaus inspiring example: Zero Waste House (SI). Source: https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas/zero-waste-house_en

Would it be possible to renovate a century-old house using original materials while adhering to today's ecological and sustainable standards? That is exactly what Zero Waste House is about. It also features a community garden.

- Safety as a transversal theme: living in safe places and moving around.
- Green areas for relaxation and well-being.
- Socialisation nearby and playing and meeting others were highly recommended.
- Technological provisions were not obvious. However, good Wi-Fi, support for physical activity, and maintaining independence may be needed.

New European Bauhaus inspiring example: Xifré's Rooftop (ES)

Figure 12: New European Bauhaus inspiring example: Xifré's Rooftop (ES). Source: https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas/xifres-rooftop-floating-wild-garden_en

Short description and key comments from the discussion

The transformation of the abandoned space into an exuberant Mediterranean wild garden followed five design objectives: heritage, biodiversity, social, low impact, and self-sufficiency.

The critical comments mainly imply a kind of "wish list" to use the spaces on the Rooftop:

- Social environment: childcare, training and exercise opportunities, meeting spaces (also indoor), open sports groups, a chessboard or other games.
- Built environment: relaxation corner for people in general, marginalised groups or people in need of care, physical training corner, playground open for families, elevator or ramp for accessibility, tables and benches.
- Technological environment: apps to show free places or to point to accessibility possibilities, childcare, physical training, digital infrastructure, and social media pages for events.

New European Bauhaus inspiring example: Designing for our children's future (LU)

Figure 13: New European Bauhaus inspiring example: Designing our children's future (LU). Source: https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas/designing-our-childrens-future_en

Short description and key comments from the discussion

Designing for our children's future entails building the BEI DE KUEBEN daycare and primary school. The notion is distinguished by environmentally, economically, and socially sustainable aspects.

- Calm and balanced children will be the outcome of this example, fitting to the notion that the application of clay plaster has a long-term favourable effect on the room environment and consequently on health. This also helps the other members reconcile with their professional careers.
- The school and daycare inspire to learn more about sustainability and sustainability principles.
- The concept of the example emphasises aspects such as sustainability and a healthy lifestyle in education.
- It opens to social interaction with all the family members. It enables intergenerational interaction.
- Shared rooms, such as a library, would benefit all and increase social participation.

New European Bauhaus inspiring example: viviHouse (AT)

Figure 14: New European Bauhaus Inspiring example: viviHouse (AT). Source: https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas/vivihouse_en

Short description and key comments from the discussion

The groundbreaking project consists of an urban do-it-yourself modular building system made from sustainable and resource-saving components. viviHouse is a long-lasting and versatile construction kit, which is built to last and can be dismantled and rebuilt in different locations, reaching up to six floors.

- Some family members' mobility is based on their ability to move within and outside the house. Improvement with handrails is one solution.
- The social environment is supported by modularity and the opportunity to rebuild and relocate the house based on the family's different needs.
- Integrative technologies would further assist the family members.
- Contact with nature, the green, blue, and lights.
- Technological provisions, e.g., digital support for healthy living and older persons, are not obvious or implied.

3.2 The Garcia Family requirements

The tables below present the social, physical/built, and technological requirements as well as suggestions for each family member's conditions or challenges provided by the participants in the break-out rooms.

Mother: with overweight issues
Little Maria: cannot walk and talk yet.

Social

- Walking group to support an active lifestyle and promote respect for her weight.
- Possibilities for physical activity or diet recommendations.
- Tools to teach sustainability principles.
- The projects support to reconcile with the professional career.
- Support network at school or at daycare to give more time for herself.
- Social connections to similar-minded parents.
- Opportunity to engage in adult-only social activities with childcare.

Physical/built

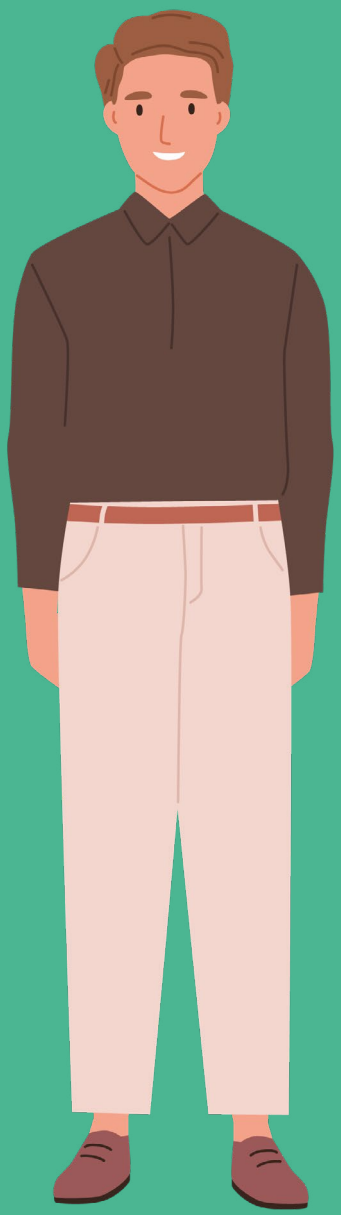
- Safe and inviting stair design, including safe handrails and supports up and down the stairs to protect them from falling.
- Protected outlets.
- Playful and relaxing outdoor green space. Connection with nature.
- Shaded areas and covers for protection from wet, hot, or windy weather.
- Leisure or study room in the house for herself.
- Room for physical exercise with different levels of exercise.
- Safe and easily accessible streets.
- Spaces to stay with the baby (e.g., feeding, changing diapers).
- Do-it-yourself kit to work on the house.

Technological

- Physical activity, sports, mentally stimulating or relaxing apps.
- Physical activity or dietary tips-apps, recipes for healthy diets-apps.
- Broadband connection to access online support for mother and child.
- Age-appropriate and developmental technology/apps for children.

Figure 15: Garcia family members – Mother and little Maria

Father: burnout.



Social

- New connections among residents.
- Tools to teach sustainability principles to Maria and Sofia.
- More affordable living to ease the workload and increased need for income if no other income exists.
- Different job opportunities (closer, less stressful).
- Rearranging of family work organisation.
- Affordable psychological support for adults experiencing burnout.

Physical/built

- Study/leisure room for himself in the house.
- Green areas to reduce stress.
- Gardening.
- Learn to create a healthier environment.
- Access to more serene locations to tackle burnout.
- Pleasant outdoor views.
- Lots of light and sun in the house.
- Do-it-yourself kit to work on the house.
- Exercise room.

Technological

- Timeout apps to control screen time.
- Apps for relaxation techniques, mindfulness and meditation exercises.
- Physical activity/sports apps.

Figure 16: Garcia family member – Father

Christina: just divorced and returned back home.

Social

- Lively spaces to meet people of the same age.
- Reading spaces.
- House location to allow a more vibrant social life.
- Access to more affordable accommodation to leave the family house.
- Divorce support group

Physical/built

- Room for herself and privacy.
- Own entrance for some feeling of independence.
- Sports area with tools.
- Rooms for shared activities with the community.
- Co-working spaces.
- Own space for gardening to have an additional feeling of home and privacy.

Technological

- Good Wi-Fi to enable work at home.
- Smart workout mirrors.
- Internet-Networking to meet new groups of people sharing the same interests (e.g., book clubs, healthy living, movies).

Figure 17: Garcia family member – daughter Christina

Francisco: mental health issues.

Social

- Safe, silent, calm and understanding environment.
- Common areas with activity spaces for socialising.
- Learning environment focused on autism.
- Social neighbourhood.

Physical/built

- Soft natural materials and low, small rooms with soft colours.
- Spaces to relax.
- Clear signage and spaces with visual boundaries.
- Green spaces.
- Safe and inclusive playground.
- Outdoor space suitable for socialising and physical activity.
- Sound control, reverberation.
- Orientation in case of identical modules.

Technological

- Noise-cancelling headphones.
- Wi-Fi connection to play games and connect with friends.
- Avoid too much technology.
- But some technology for educational development.
- Supportive mental health, such as VR.

Figure 18: Garcia family member – son Francisco

Sofia: needs glasses.

Social

- Safe space to play and to avoid risks.
- Information provided at an age-appropriate level.
- Playgroups with other children in a protected setting.
- Tools to teach sustainability principles.

Physical/built

- Lower cabinets/table for her to work on.
- Safe surroundings of the house.
- Clear, legible, contrast-coloured and symbolic signage.
- School with a positive impact on her mental well-being and health.
- Learns about sustainability principles.
- Healthy food at school.
- Features enlarged for visual impairment.
- Good lighting and contrast.

Technological

- Safe electrical devices and interfaces.
- Technological features and apps to facilitate learning (time limits to use the apps).

Figure 19: Garcia family member – daughter Sofia

Grandma: has mild cognitive impairment.

Social

- Community horticulture.
- Building with a good location in the neighbourhood that invites socialising.
- Think of the future if the MCI progresses in time.
- Provision of daycare.
- Intergenerational activities in common spaces.

Physical/built

- Signs/whiteboard to remember things.
- Lighting.
- Maps designed with basic symbols and colours.
- Easy orientation within the house.
- Mirrors and barriers to be removed.
- Avoid too noisy environments.
- Clear signage and locations and directions.
- Comfort in terms of dry environment.
- The daycare centre open to other ages – multigenerational.
- In the case of similar rooms, create diversity for recognition.
- Recognition and orientation supportive materials.
- Aiding colour and handling systems if meal intake is impaired.

Technological

- Easy-to-understand technologies.
- Reminders for medications, health status, checks, and sensors.
- Sensors and other ICT for remote monitoring.
- Home automation, such as automated lighting or automated turn-off devices.
- Assistive technologies.
- Memory and mind-activating games, also computer assisted.

Figure 20: Garcia family member – Grandma

Grandpa: with mobility issues.

Social

- Living space on the ground floor.
- Building with a good location in the neighbourhood for socialising.
- Barrier-free access to daycare and school.
- Near facilities and nature.
- Physical therapy group classes for people with mobility issues.

Physical/built

- Elevator, escalator, ramps, stair lift.
- Flat surfaces built with non-slippery materials.
- Comfort in terms of dry environment.
- Accessibility.
- Social engagement by participation in activities.
- Workout room.
- Safe showering or bathing area.
- Adapted bathroom facilities for secure and facilitated use.
- Furniture and wardrobes with adequate design and disposition.

Technological

- Stand-up chair.
- Adaptation of the house – built-in standards to enhance mobility.
- Mobile tech devices to support walking around.
- Ergonomics and assistive technology.

Figure 21: Garcia family member – grandpa

4. Discussion

The inspiring projects of the New European Bauhaus led to a vivid virtual Satellite Event of The Festival on April 9th, with much interactive work and engaging discussion on the Bauhaus examples and the challenges of the Garcia Family. It concludes with various solutions to fulfil the needs of the Garcias in the areas of social, physical/built and technological environments. The workshop led to the following answers to the earlier asked questions:

Q: How does the New European Bauhaus focus on people and places?

A: New European Bauhaus' inspiring projects and ideas often involve co-design with stakeholders and the locations of the projects. For example, the RecyclingHaus is built in co-creation. The ViviHouse can be adapted with modular building blocks according to the needs. Designing our children's future offered dedicated solutions to end-users. Safe and green places were sought in the Rooftop and the Zero Waste House. The location of the projects connected to the social aspect was not obvious.

Q: How do the New European Bauhaus inspiring projects and ideas improve citizens' capacities and involve them?

A: The New European Bauhaus's inspiring projects and ideas provided much food for discussion and thoughts during the workshop. The Zero Waste House improved the capacity to relax and for more well-being. The Xifré's Rooftop project inspired the creation of places for the benefit and well-being of citizens, such as relaxation and training. Involvement was achieved by the co-creation of many projects and ideas of the New European Bauhaus.

Q: How can an improved alignment between the built, social, and digital environment be achieved?

A: The New European Bauhaus projects and ideas discussed mainly show the built or physical environment. The connection to the social and digital environment was not noticeable. The built environment could accommodate some of the Garcias' needs. At times, attention was also drawn to targeted adaptations. The connection with social or digital solutions would be particularly obvious apart from physical solutions.

Q: How can inclusiveness and a lifelong approach be realised?

A: The New European Bauhaus projects discussed are single examples of buildings or communal spaces. The location and potential of these projects to enable social activities or digital applications were not clear from the descriptions. The workshop participants indicated that this integral connection from built to social and digital is important.

To sum up, the workshop participants found that the built environment of the New European Bauhaus's inspiring projects and ideas is quite beneficial for the members of the Garcia family. The co-creation or co-design approach is very well received. Aligning the social and digital environment according to the SHAFE concept could enhance the social and digital connection to the community.

5. Conclusions and recommendations for developers, designers, planners, and policymakers

The main conclusion was the need for person-centred design of social and physical environments and technologies. Although awareness of person-centred design is growing, many initiatives still hamper the inclusion of citizens or end-users throughout the development of products and services.

During the discussion, the participants suggested using the principles of Systems Thinking, Design Thinking, and Neurodiversity Design. Systems thinking concerns the understanding or intervening in problem situations. It considers similarities between systems from different domains. Design Thinking works with the stages of Empathise, Define, Ideate, Prototype and Test. Each step is done with users in practice. The Neurodiversity Design System is a coherent set of standards and principles that combines neurodiversity and user experience design for Learning Management Systems. For the built environment in general, neurodiversity design principles refer directly to spatial qualities of buildings and exterior spaces, such as this example on autism. This means supporting success and achievement for everyone involved from the beginning by providing accessible learning systems to design a New European Bauhaus environment. Post-occupancy evaluation teaches much about how citizens and end-users experience the environment and is another source of learning.

The participants' proposal includes these educational approaches and the daily work of developers, engineers, or architects. It is crucial that these approaches are endorsed and made part of practice education across science, technology, art, and culture students. They are our future planners, engineers, designers and creators of environments and spaces we live in and utilise to optimise health, inclusivity, aesthetics, and sustainability experiences. When developing or designing, it is also advisable to keep in mind that users' interests may collide; for example, a bench on which you can lay down for a rest and a bench that is divided by "side supports" for lifting up, that are useful for older adults. Another conclusion was the need for multigenerational approaches in designing social, physical, or technological environments. It was said that quality of life improves if multiple generations are enabled to meet each other. Some of the New European Bauhaus examples were inviting for that purpose.

Another point of attention for the New European Bauhaus is that the location of the house and centres is as important as the building itself. Participants firmly pledge to create living environments in locations that provide facilities within walking distance or to include technological solutions for social connection. This would be an optimal solution, especially for less mobile people.

This interdisciplinary collaboration not only highlights the enrichment brought about by a diverse array of approaches and experiences but also underscores the importance of thoroughly understanding the characteristics of the environment. By delving deeply into the intricacies of the surroundings, stakeholders can gain invaluable insights that further fuel the generation of innovative ideas and creative solutions. This tackles the multifaceted challenges confronting modern society as well as each of the regional or local individual spaces where the New European Bauhaus approaches are planned to be introduced.

References

[1] COST Action NET4Age-Friendly. https://www.net4age.eu

[2] Forebears. https://forebears.io/europe#surnames

[3] Interaction Design Foundation. Personas. https://www.interaction-design.org/literature/topics/personas

[4] Neurodiversity Hub. https://www.neurodiversityhub.org

[5] New European Bauhaus Inspiring example: Designing our children's future (LU). https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas/designing-our-childrens-future_en

[6] New European Bauhaus Inspiring example: RecyclingHaus (DE). https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas/recyclinghaus_en

[7] New European Bauhaus Inspiring example: viviHouse (AT). https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas/vivihouse_en

[8] New European Bauhaus Inspiring example: Xifré's Rooftop (ES). https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas/xifres-rooftop-floating-wild-garden_en

[9] New European Bauhaus Inspiring example: Zero Waste House (SI). https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas/zero-waste-house_en

[10] New European Bauhaus: Inspiring projects and ideas. https://new-european-bauhaus.europa.eu/get-inspired/inspiring-projects-and-ideas_en

[11] SHAFE Foundation. Designing the perfect New European Bauhaus neighbourhood. https://shafe.eu/2024/02/23/designing-the-perfect-new-european-bauhaus-neighbourhood/

[12] Diviš J, Růžička J. The Influence of Clay Structures to the Hygrothermal Component of the Indoor Environment. Materials. 2022; 15(5):1744. https://doi.org/10.3390/ma15051744

[13] Adcock, R. Systems Thinking. SEBoK. https://sebokwiki.org/wiki/Systems_Thinking

[14] Hasso Plattner Institute of Design at Stanford University. An Introduction to Design Thinking: Process Guide. https://web.stanford.edu/~mshanks/MichaelShanks/files/509554.pdf

[15] Soward, W. Neurodiversity Design System. https://neurodiversity.design

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