



OPEN INNOVATION PROCESSES

for the New European Bauhaus

FROM PARTICIPATION TO IMPACT

Sustainability

Ecological transition, circular economy.

Aesthetics

Spatial quality, accessible beauty.

Inclusion

Diversity, equitable participation.

May 2026

STARHAUS



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ABOUT THIS BROCHURE

- A synthesis of independent academic research on open-innovation processes within the New European Bauhaus.
- Audience: NEB partners, local and regional authorities, cultural organisations, research institutions, civil society.
- Includes branded visuals provided by the four sister projects on localised manufacturing.



What is the New European Bauhaus?

The New European Bauhaus (NEB) is a European Commission initiative launched in 2021 as the cultural, aesthetic and social dimension of the European Green Deal. It connects the ecological transition with the quality of the spaces in which people live, work and learn, and with the participation of communities in shaping that transition.

The initiative is built around three inseparable values; none can be achieved without the other two:

Sustainability

From EU climate targets to circular economy and ecosystem regeneration.

Aesthetics

Quality of experience, design and culture, accessible to all.

Inclusion

Diversity, accessibility, equitable participation.

Key milestones in the NEB architecture:

- 2019** · European Green Deal (COM(2019) 640)
- 2020** · Renovation Wave (COM(2020) 662)
- 2021** · Launch of the NEB (COM(2021) 573)
- 2023** · Progress Report (COM(2023) 24)
- 2025** · Affordable Housing Plan and NEB Facility 2025–2027
- 2026** · Council Recommendation 9128/26, 11 May

The open-innovation framework

The NEB does not operate as a conventional building-finance programme; it operates as an open-innovation process in which ideas, resources and actors circulate within a multi-level ecosystem. In the academic literature this is referred to as Open Innovation 2.0 (Curley and Salmelin, 2018).

The governance model is known as the Quadruple Helix; four categories of actor interact as equal partners:

Academia

Universities, research institutes, schools of art and design. Bring knowledge, method, evaluative capacity.

Public sector

Commission, Member States, regions, cities. Set direction, fund work, integrate results.

Private sector

SMEs, large companies, cooperatives, social entrepreneurs. Operationalise solutions for markets.

Civil society

Citizens, associations, NGOs, artistic collectives. Define needs, validate solutions, use them.

Five shifts of Open Innovation 2.0 are observable in the NEB: interaction is ecosystemic rather than bilateral; the user is co-creator rather than recipient; problems are systemic rather than punctual; the product cycle is open rather than closed; the public role is direction-setting.

The policy architecture

The NEB policy architecture has been built progressively between 2019 and 2026 through Commission Communications, a European Parliament Resolution and a Council Recommendation adopted in May 2026.

COM(2019) 640 — European Green Deal

The macro-frame for EU ecological transition up to 2050.

COM(2020) 662 — Renovation Wave

Renovation strategy; people at the centre.

COM(2021) 573 — Launch of the NEB

Founding text: three values, principles, instruments.

EP Resolution 2021/2255(INI)

Parliamentary support for consolidating the NEB.

COM(2023) 24 — Progress Report

First-phase stocktaking and balance challenges.

COM(2025) 1025 — Affordable Housing Plan

NEB principles in European housing policy.

COM(2025) 1026 — Vision to Implementation

Roll-out: NEB Facility 2025–2027 with eight EU programmes.

Council Rec. 9128/26 (11 May 2026)

Reference point for Member States integrating NEB.

The European innovation landscape (2024)

Eurostat data and the 2024 European Innovation Scoreboard show a deeply asymmetric landscape: the European average is respectable, but variation across Member States is of an order of magnitude.



EUROPEAN INNOVATION CONTEXT

- R&D intensity varies up to eightfold across Member States.
- Government R&D allocations per inhabitant range across orders of magnitude between countries.
- EIS 2024 distinguishes four innovation tiers across the EU: Leaders, Strong Innovators, Moderate Innovators, Emerging Innovators.
- Circular economy adoption rates vary widely; the EU 2030 target is 23.2%.
- Housing overcrowding averages 16.9% across the EU, with very large national variation.

These asymmetries define the conditions under which each Member State can participate. NEB policy cannot eliminate the gaps, but can mobilise EU instruments to partially compensate.

First generation: six lighthouse projects

Horizon Europe call HORIZON-MISS-2021-NEB-01-01 funded six lighthouse projects in 2022. These set methodological standards for the entire ecosystem.

NEBourhoods

Coordinator: City of Munich. Urban test-bed in the Munich-Neuperlach district with 17 partners. Ten NEB actions across urbanism, mobility, energy, biodiversity, food and youth culture. The Transition Hub methodology is now being replicated by other cities.

CultuurCampus

Coordinator: Erasmus University Rotterdam. A cultural campus anchored in one of the most challenged urban areas in the Netherlands. University as community institution, not external observer. Includes the Het Grondstoffenstation recycling site.

Bauhaus of the Seas Sails

Coordinator: Interactive Technologies Institute, Lisbon. 18 partners across six countries. The most geographically dispersed project of the first generation. Coastal communities reconnect with the sea through cultural co-design, artistic engagement and applied research.

First generation: completion and hubs

DESIRE

Pilots across five European countries. Core proposition: circularity must become irresistible through aesthetics and culture, not regulatory mandates alone. Directly couples aesthetic and sustainability pillars.

NEB-STAR

Coordinator: Municipality of Stavanger. 16 partners. Triangular configuration: one EFTA city paired with two EU Member States. Fair solutions for climate and social transitions.

EHHUR (Eyes Hearts Hands Urban Revolution)

Methods for heritage-sensitive integration of the green transition into the historic European urban fabric, without sacrificing what makes that fabric recognisable.

CrAft

Bridge between EU Cities Mission and NEB. 3 Sandbox + 70 Reference Cities.

NEB Junction

Central hub for NEB results, operational from 2025. Coordinator: NTNU.

Second generation: localised manufacturing

Horizon Europe call HORIZON-CL4-2023-HUMAN-01-53 funded four sister projects in 2023 that explore how production can return to communities. These projects test the central proposition of the circular relationship between production and community.

FOUR PROJECTS, ONE TOOLKIT

- STARHAUS — sustainable, technological, accessible, resilient human-centric manufacturing of fast-moving consumer goods.
- FABRIX — regenerative textile and clothing ecosystems through the MANTEL digital platform.
- LAUDS Factories — local, accessible, urban, digital, sustainable production hubs.
- YouRban — mobile workshop for recycling fibre-reinforced polymers.

Each of the four sister projects has its own dedicated page that follows, with a visual supplied by the project partners.

Customised manufacturing, human-centric

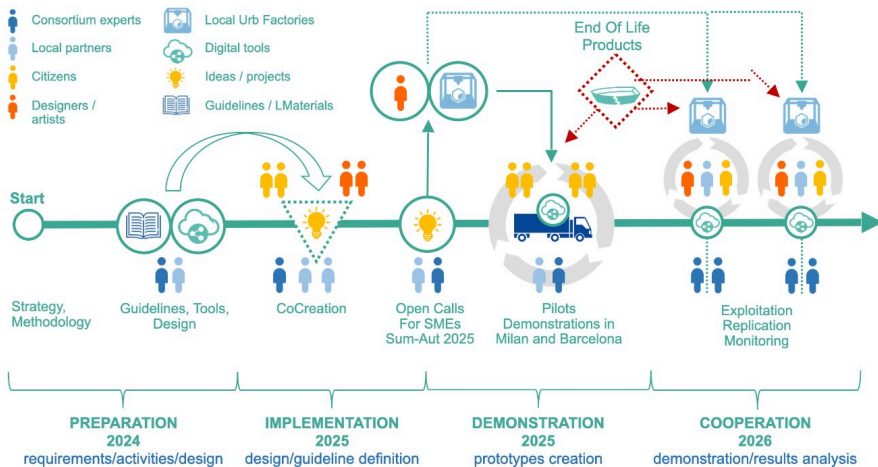


STARHAUS continues DIY4U

13 partners across seven European countries

Coordinator: SINTEF. STARHAUS develops human-centric manufacturing of customised consumer goods (pet food, fertilisers, beverages, breakfast cereals) through eight modular hardware components extending the Manufacturing Demonstration Facility inherited from the DIY4U project. The technology has been showcased at industry fairs including Industriuka 2024 with a chocolate-lens interactive demonstration; the project also runs cascade-funded Open Innovation Calls with external partners and S+T+ARTS residencies.

Mobile factory for circular polymer reuse



YouRban timeline: preparation, implementation, demonstration, cooperation (2024–2026)

European consortium, 8 partners

Coordinator: Politecnico di Milano. YouRban fosters a cocreative, sustainable, inclusive urban ecosystem for the reprocessing of reinforced polymers on-the-truck. A mobile plant housed in a truck tours Milan and Barcelona, hosting end-of-life composite recycling. Citizens, artists, designers and Urban Factories engage through a Neighborhood Participatory Approach and Cascade Funding. Two 10-day events frame the demonstrations; new objects are co-designed using collaborative digital tools.

Regenerative textile and clothing ecosystems

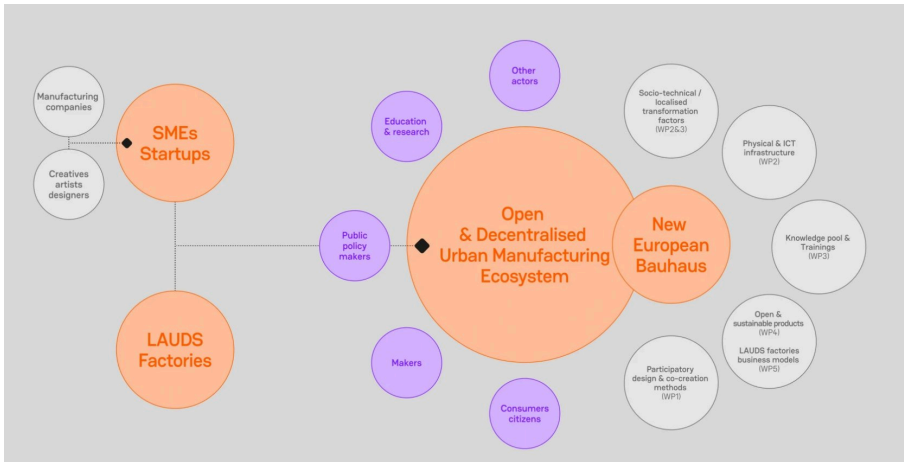


FABRIX Methodology: the space of networks and the network of spaces

European consortium, 9 partners

Coordinator: TU Delft. FABRIX transforms textile & clothing (T&C) production from a globalised, linear model into a sustainable, circular and regenerative system, prioritising local manufacturing in urban environments. Its dual framework, the “space of networks” and the “network of spaces”, integrates physical locations with relational networks between businesses, public authorities and community groups. The MANTEL digital platform (Beta at platform.fabrixproject.eu, Fall 2025) empowers local facilitators; the FABRIX Academy builds capacity. Pilot cities: Athens and Rotterdam.

Open and decentralised urban manufacturing



LAUDS Factories ecosystem: open and decentralised urban manufacturing

European consortium

Coordinator: TU Berlin. The future of manufacturing is Local, Accessible, Urban, Digital, Sustainable. LAUDS Factories are open and sustainable small-series production hubs that blend digital tools with physical spaces, co-design with citizens, and skill-building with new types of jobs. Demonstration factories at Fab City Hamburg, Maker V-10 (Denmark) and Lorraine Smart Cities Living Lab (France). Open Calls connect creatives, artists and SMEs through cascade funding; consortium includes the Ukrainian NGO Metalab.

Four projects, one shared logic

Although the four sister projects address different industrial sectors, fast-moving consumer goods, textile and clothing, small-series production, polymer recycling, they were funded by a single Horizon Europe call (HORIZON-CL4-2023-HUMAN-01-53) and designed as deliberate siblings. Their formal objectives reveal a remarkably aligned operating logic.

Four sectors, one model

STARHAUS for fast-moving consumer goods (pet food, fertilisers, beverages, cereals); FABRIX for textile and clothing; LAUDS for small-series production; YouRban for fibre-reinforced polymer recycling. Different sectors, same proposition: production must return to the city.

Cascade funding (FSTP)

All four channel resources to third parties through open calls. STARHAUS allocates a Financial Support to Third Parties budget for at least six grants; YouRban operates a Cascade Funding mechanism; FABRIX runs open calls for Facilitators; LAUDS holds Open Calls for creatives, artists and circularity SMEs.

Co-design with citizens, artists, designers

All four use participatory methods from the project's first phase. STARHAUS via the S+T+ARTS framework with 100 community members in design (KPI-1), 8 NEB-based methods for cross-disciplinarity (KPI-5), 2 S+T+ARTS residencies (KPI-23); YouRban via 10-day neighbourhood events with artist residencies; FABRIX via co-creation workshops in Athens and Rotterdam; LAUDS with co-design as its first stated objective.

Digital tools + physical spaces

Each project pairs software with physical infrastructure: STARHAUS's MDF and 8 new hardware modules (KPI-8); FABRIX's MANTEL platform (Beta, Fall 2025); LAUDS's Local Urban Factories with digital collaboration tools; YouRban's mobile truck with Collaborative Digital Tools. STARHAUS alone targets dissemination in 8 of the EU's 100 Climate-Neutral and Smart Cities (KPI-3).

DESIGNED TO MEET

- STARHAUS Specific Objective 8 mandates connection and collaboration with sibling projects through cluster events (KPI-18: minimum 1 event with projects from the same call).
- The four projects regularly meet in joint workshops, share methodological deliverables, and align dissemination through the NEB Junction hub.
- Together they form a single four-piece toolkit for the NEB proposition: production can be open, circular, local and human-centric, because of community participation, not in spite of it.

Social impact: five dimensions

The social impact of the NEB on communities is multi-dimensional. These five dimensions allow structured evaluation that avoids both under-assessment and over-assessment.

1. Distribution

Who effectively participates. Cooke and Kothari (2001): participation can legitimise decisions already taken. NEB tests whether projects reach under-represented groups.

2. Intermediaries

Civic and cultural organisations between state and citizens. NEB strengthens them through resources and capacities that outlive the project.

3. Cultural employment

7.9 million workers in EU 2024, a sector with structural vulnerabilities: high self-employment, gender wage gaps, precarity. NEB channels resources to the sector.

4. Public space

Renovated buildings, redesigned streets, community libraries. The most visible dimension — but not the only one that counts.

5. Transformation: community-production relationship

The most ambitious dimension and the one with the longest time horizon. Reconnecting communities with production systems that serve them, geographically (closer), participatively (more accessible), normatively (more aligned). Persistence of these connections beyond the project end is the key evaluation criterion.

Public-policy effects

Beyond direct impact on communities, the NEB produces effects at the level of institutional routines of the EU and Member States. These are harder to observe but more durable.

EU level

NEB Facility 2025–2027 is anchored in Horizon Europe and connected to other EU programmes and funds.

Member States

Council Recommendation 9128/26 invites integration of NEB principles into national policies on housing, renovation, culture, education.

Cities and regions

CrAft network of 70 Reference Cities. Post-2027 Cohesion Policy integrates NEB criteria. Lighthouse cities become replication models.

Civil society

NEB Prizes, biennial NEB Festival, NEB Academy. Civic organisations gain visibility, capacity and resources outlasting any single project.

The next institutional move is from demonstration to system. Demonstrators show what is possible; only systems ensure it becomes standard practice.

Three questions at NEB Festival 2026

BRUSSELS, 9–13 JUNE 2026

The satellite events proposed by the sister projects and selected for NEB Festival articulate a central thesis: production and community do not relate unidirectionally; they form a circular relationship held together by open-innovation processes. Each chapter is developed in the pages that follow.

Session 1 · Open-innovation processes

How does participation translate into impact? Six steps: co-design, co-creation, cascade funding (FSTP), capacity-building, dissemination and replication, integration into policy. The first three are now established practice; the last three remain fragile in operation.

Session 2 · Production for community

How does production infrastructure shape participation? An available FabLab, an open platform, a mobile factory: each defines who can participate. Industry 5.0 articulates the human-centred paradigm in which the four sister projects operate.

Session 3 · Community for production

How do communities reshape production? Through intermediaries (cooperatives, NGOs, cultural collectives), communities steer production toward circularity, inclusion and aesthetic value. The cycle closes.

From participation to impact

The NEB is a public-sector open-innovation process in the coupled mode (Chesbrough, 2014), simultaneously absorbing external ideas from communities, cultural actors and civil society, and releasing its outputs for further development. Five shifts of Open Innovation 2.0 (Curley and Salmelin, 2018) are observable: ecosystemic interaction (8–18 partners per consortium plus FSTP sub-grantees), user as co-creator, systemic problems, open product cycle, direction-setting public role.

THE SIX-STEP PATHWAY (PARTICIPATION → IMPACT)

- Co-design at EU level: the NEB co-design phase January–July 2021, documented in COM(2021) 573.
- Co-creation at project level: Transition Hub (NEBourhoods), BoS sliders, MANTEL platform (FABRIX).
- Cascade funding through FSTP: can constitute up to 25% of project budget; reaches actors lacking absorption capacity for EU grants.
- Capacity-building: FABRIX Academy, NEBourhoods Replication Strategy D6.8, CrAft STEAM Teams, NEB Booster.
- Dissemination and replication: NEB Festival as recurring venue; NEB Junction hub from 2025.
- Public-policy mainstreaming: COM(2025) 1026, COM(2025) 1027, Council Recommendation 9128/26.

FIVE FAILURE MODES

- Consultation that does not lead to decision authority.
- Participation by the already-participating: reproduces existing distributions of voice rather than transforming them.
- Cascade funding too small to absorb the administrative burden.
- Capacity-building that does not outlive the project.
- Mainstreaming without absorption by Member States and cities.

The pathway is now structurally complete. The question for 2026–2030 is whether it will be operated with the institutional discipline that durable impact requires.

Production for community

Production is not external to community engagement. Infrastructure shapes who can engage, on what terms, with what tools. A community with access to an open-source FabLab can prototype its own solutions to local problems; a community without it can only ask others to do so. The Industry 5.0 paradigm articulates the shift: production must be sustainable, human-centric and resilient.

STARHAUS

Regenerative production demonstrators relevant especially in conditions of structural disadvantage. The MDF technology inherited from DIY4U is extended with eight new modular hardware components.

FABRIX

The MANTEL federated digital-fabrication platform allows distributed makers and small textile manufacturers anywhere in Europe to access European-scale production capacity.

LAUDS Factories

Urban Factory pilots in dense city contexts bring small-scale, locally anchored, digitally enabled manufacturing physically into communities' neighbourhoods.

YouRban

A mobile event-based factory on a truck brings production to communities that have no permanent manufacturing infrastructure of their own.

THREE OPERATIONAL CHALLENGES

- Infrastructure is expensive to maintain: operating costs are harder to fund than capital costs.
- Infrastructure is unevenly distributed across the EU, following the same asymmetry as R&I capacity.
- Infrastructure requires skills that are also unevenly distributed; capacity-building is integral to the proposition, not optional.

Infrastructure remains a precondition for community engagement, not a sufficient condition on its own. Without sustained capacity-building, even well-resourced infrastructure ends up under-utilised at best and inaccessible at worst.

Community for production

The inverse direction. Engaged communities do not merely use production infrastructure built for them; they actively reshape it to meet their values. Inclusion, in the NEB Compass definition, is not a procedural matter (consulting people) but a substantive matter: ensuring that NEB outputs meet community needs and values.

THREE PATTERNS

- Operates through intermediary organisations: civic-economy NGOs, neighbourhood associations, cultural collectives, designer-maker cooperatives. Intermediaries aggregate community voice and translate it into the institutional language production systems can absorb.
- Requires specific organisational forms: cooperatives, social enterprises, civic-economy associations. These encode community values into the production decision-making structure.
- Operates at smaller scale with cumulative effect: a single community can reshape a single factory or production chain; reshaping an entire sector requires many community-driven instances.

THREE CHALLENGES

- Asymmetry of voice: production systems have no formal place for community voice in their employer–employee, supplier–customer, shareholder–manager architecture.
- Time horizon mismatch: production decisions on years (machinery, supplier contracts); community participation on months (consultations, working groups).
- Institutional thinness in Emerging Innovator countries: civic-economy infrastructure must be built up before it can be used effectively.

And so the cycle closes. Production infrastructure enables community engagement; engaged communities reshape production; the reshaped production then enables broader engagement in the next turn.

Five analytical propositions

Five propositions emerge from the cross-cutting reading of the document analysis, secondary statistical data and ten project cases. Each is offered not as a definitive conclusion but as a structured statement that subsequent research and policy implementation can test.

1. The NEB is a process programme, not a building programme

Despite its name's resonance with the Weimar Bauhaus, the New European Bauhaus is best understood as an initiative that produces specific processes (co-creation, cascade funding, multi-actor consortia, capacity-building) and lets these processes shape buildings, products and education differently in different places.

2. The participation-to-impact pathway is well-authorized but fragile in operation

The six-step pathway is policy-anchored, but the later steps (replication, mainstreaming) depend on post-project structures whose operational maturity is uneven.

3. Structural asymmetries within the EU are the binding constraint

R&D intensity varies eightfold across Member States. The NEB cannot eliminate these gaps, but its FSTP mechanism and NEB Booster programme are designed to partially compensate.

4. The cultural and creative dimension is the NEB's distinctive contribution

Among EU innovation policies, the NEB is unique in placing aesthetics and cultural value alongside sustainability and inclusion as equal pillars. This is its distinctive institutional contribution.

5. The circular reading of production and community is the interpretive key

Production and community do not relate unidirectionally; they form a circular relationship held in place by an open-innovation process organised around shared values, multi-actor governance and cascade funding mechanisms.

Eleven recommendations

Eleven recommendations addressed to four sets of actors, derived from the cross-cutting analysis. The recommendations are intentionally proportional: more ambitious for actors with greater institutional capacity, more institution-building for actors operating in thinner contexts.

To EU institutions

NEB Facility 2025–2027 should absorb projects from Emerging Innovators on relaxed terms. Standardise cascade funding (FSTP) proportions. Dedicate a NEB line in Framework Programme 10. Supplement Recommendation 9128/26 with sector-specific instruments.

To Member States

Establish national NEB contact points with inter-ministerial authority. Emerging Innovators should use NEB Booster fully and integrate NEB into NRRPs. Strong-system Member States should address internal asymmetries between cores and peripheries.

To cities and regions

Treat NEB as a long-term institutional investment, not as one-off applications. Integrate NEB into ERDF, Cohesion Fund and JTF operational programmes for the post-2027 MFF. Use the CrAft Reference Cities network as the institutional vehicle.

To civic-economy and culture

Organise at European level around the NEB as a substantive actor, not only a beneficiary. The cultural sector should use Recommendation 9128/26 to address structural vulnerabilities (precarity, gender wage gap, low pay).

The real test of the NEB is not how many buildings it renovates, but whether it durably changes the way Europe organises the relationship between production and community.

Sources and acknowledgments

Synthesis of a 96-page academic study based on official EU documents, public statistical data and CORDIS records. Branded visuals supplied by the four sister projects.

PRIMARY DOCUMENTS

- COM(2019) 640 — European Green Deal; COM(2020) 662 — Renovation Wave
- COM(2021) 573 — Launch of the NEB; COM(2023) 24 — NEB Progress Report
- COM(2025) 1025, 1026, 1027 — NEB implementation
- EP Resolution 2021/2255(INI); Council Recommendation 9128/26 (11 May 2026)

STATISTICAL DATA (EUROSTAT 2024)

- R&D expenditure and GBARD
- Housing in Europe, 2025 edition
- Circular economy material flows; Cultural employment
- European Innovation Scoreboard 2024

SISTER PROJECTS AND IMAGE CREDITS

- STARHAUS (starhausproject.eu) — MDF in operation; consortium materials.
- FABRIX (fabrixproject.eu) — FABRIX Methodology, dual framework.
- LAUDS Factories (lauds.eu) — ecosystem diagram.
- YouRban (yourban-europe.eu) — project timeline 2024–2026.
- All four projects funded under Horizon Europe HORIZON-CL4-2023-HUMAN-01-53.

THE FOUR SISTER PROJECTS

STARHAUS

Sustainable, technological, accessible, resilient manufacturing.

starhausproject.eu

FABRIX

Regenerative textile and clothing ecosystems.

fabrixproject.eu

LAUDS Factories

Local, accessible, urban, digital, sustainable production hubs.

lauds.eu

YouRban

Mobile factory for circular polymer reuse.

yourban-europe.eu

From participation to impact.

Open Innovation Processes for the New European Bauhaus

Building Trust, Driving Change, and Accelerating Acceptance of Decentralized Manufacturing Models