



The Nature of Cities Europe

Plaidoyer for Transdisciplinarity, Local Agency, and Creative Co-Creation in Cluster 6 and the New European Bauhaus

Summary: *Horizon Europe's Cluster 6 and the emerging Mission New European Bauhaus (NEB) share several important synergies that can be addressed with novel and innovative projects that emphasize (1) place-based and community-centered greening; and (2) creative and art-engaged transdisciplinary co-production. Encouraging increased agency for the public in the care of their local environments through the deployment of Nature-based Solutions holds great potential for both mainstreaming NbS and creating the beautiful, sustainable, liveable, healthy, and inclusive neighbourhoods called for in the NEB. They can be turned into action through the approaches suggested in this document.*

Introduction: How can we create and maintain communities that people need and deserve; cities that are better for both nature and all people; that are beautiful, liveable, healthy, sustainable, resilient, and just? The New European Bauhaus (NEB) aims to “co-create beautiful, sustainable and inclusive solutions for neighbourhoods across the EU”¹ that “deliver on Green Deal objectives”. The Horizon Europe Work Plan for 2023-24 emphasizes mainstreaming biodiversity and Nature-based Solutions (NbS) in society and the economy.² Integrating transdisciplinary knowledge-building along with creatively co-productive engagement and implementation at local scales propels the aims of both NEB and Cluster 6.

Climate change, unsustainable development, loss of liveability, and systemic inequality produce complex “wicked problems” that require multidimensional thinking and practice. The knowledge-building for wicked problems needs to be as rich and multidimensional as the social, environmental, and technological problems themselves. The message of this document is that solutions to the wicked problems we face across social, technological, and ecological realms will not be found only in business-as-usual intra-disciplinary knowledge building and dissemination. Rather, solutions will be found in the purposeful application of transdisciplinary, collaborative, and creative co-productive knowledge that mutually engages scientists, practitioners, policymakers, artists, and the public. Of course, intra-disciplinary knowledge building will remain important, but mixed approaches are critical. And they are not easy: transdisciplinary spaces and process must be actively and intentionally curated and nurtured.

Implementing solutions must happen at local scales, with heightened agency for the people who live in the affected communities: that is, we need to “meet people where they are”. Central to this idea is the notion of care and stewardship, with residents as active stewards of their environments and communities. How can we engage with diverse publics, both professional and general? Art-forward creative engagement is an excellent means to this end. While natural resources and land management agencies have long engaged the arts to deliver messages (i.e., dissemination), more effective collaborations must integrate art and creativity as their own “ways of seeing and knowing” from the inception of projects. Integrated teams produce novel insights and catalyse reflection and innovative action, reaching beyond “business as usual”.

When weaving together art, science, land management, and public perspectives with local action, we can generate new understandings of current and future needs, new narratives and imaginaries as well as new knowledge; together these provide multiple entry points for engaging diverse publics in stewardship and care. By posing innovative questions, engaging multisensory and emotion-laden methods (including but not limited to stories, comics, games, murals, theatre, food and culture events, and music), and engaging in co-learning, creatives (including scientists and practitioners) expand the arena of who participates in knowledge co-production and stewardship, thus inspiring and discovering new routes to sustainable, inclusive communities. Specific categories of calls to action, engagements, and research follow:

1. Nurture transdisciplinary projects:

Transdisciplinarity forges novel “ways of seeing and knowing” that combine disciplines into merged visions and methods. By melding disciplines — not simply bringing two practices to work together — transdisciplinary collaboration enables the creation of novel ways of working and outcomes that would not

¹ Document: “12_WP2023-2024_Missions_v20072023_SPCclean”, p. 305

² Document: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-9-food-bioeconomy-natural-resources-agriculture-and-environment_horizon-2023-2024_en.pdf, p. 114.

have been possible if working independently. Such approaches directly address the challenges of complexity to learn from each other, build knowledge suitable for addressing wicked problems, and forge new pathways for sustainable social-ecological-technical systems. Such approaches recognize, as people in communities do, alternative realities such as spiritual and quantitative; specific and generalized; and emotional and rational. Co-production involves widening the set of actors that participate in knowledge generation, decision-making, and implementation, including the public: diverse collaborators working together to identify questions, develop and evaluate methods, gather and interpret data, and propose solutions by braiding different forms of knowledge together.

Transdisciplinarity is a framework for recognising that the “truth” of different disciplines results from their specific methodologies and are potentially conflictual. Transdisciplinarity that includes arts and humanities can be part of a strategy that fosters diversity, equity, inclusion, imagination, and accessibility. Recent work in the sustainability sciences suggests that alternative ways of knowing and acting, such as Traditional Environmental Knowledge and artistic modalities, offer opportunities to advance thinking beyond positivist science. Such modes can embody experiences, reconstruct language and concepts, and articulate ethics and practices of care.

Specific recommendations:

- Require project teams practice transdisciplinarity from start to finish.
- Emphasize transdisciplinary teamwork that blends scientific insights, local knowledge, public dialogue, creativity, and inclusive perspectives to go beyond dichotomies like culture/nature and to promote a life-centered approach.
- Include local voices in the development and piloting of methods and applications of NbS.
- Innovate in the spread of methods to engage local action and civil society-led stewardship.
- Support approaches that prioritize open or unscheduled time and that make space for uncertain or emergent ideas or processes, which ultimately strengthen shared values and innovative potential.
- Recognize that the reward systems differ across disciplines and often must be adjusted to allow some groups to participate.

2. Engage artists, creatives, and educators as connectors between science and the public:

Art and artists have been underutilized as connective tissue between science, practice, and the public. Place-based collaborations between artists, scientists, and land managers can transform our relationships to community and the land toward more sustainable trajectories and create opportunities for engagement, creation of shared visions, and co-production by and with diverse publics. By engaging with the arts, planners, land managers, and sustainability practitioners are encouraged to see and think differently about the framing of problems and potential solutions to challenges such as climate change, biodiversity loss, urban heat, food insecurity, environmental justice, combined sewage overflow, and water quality. An excellent route to greater local participation is the use of games and simulation models, in which scientific (and other) knowledge is built into the workings of the simulation: it honors both technical knowledge and local opinion. Stakeholders interact with the “front end” of the game to explore various designs for their communities; the science “back end” of the game calculates the outcomes of design options. Art, artists, and creative practitioners of many types can help engage the public on issues that concern them most: the quality of their communities.

Specific recommendations:

- Embrace art and creative approaches as fundamental “ways of seeing and knowing”, not just a tool for communications and dissemination.
- Include artists and creatives inside teams of researchers, practitioners, and policy makers from start to finish in projects. Transdisciplinary teams learn to see, reflect, and share in novel ways.
- Employ place-based art approaches within neighbourhoods to tell stories (of both science and people) that engage the ideas of all stakeholders into joined conversations.
- Support simulation modeling and gaming (that is user-friendly, playful and accessible in format) as decision tools to facilitate dialogue and public opinion melded with forms of technical knowledge.
- Explore a full range of creative approaches for knowledge generation, sharing, and decision making that include value- and emotion-laden dialogue: artist residencies, gaming (e.g., Minecraft), role-

playing, storytelling, community-based murals, fiction and poetry, theatre, cooking, conflict mediation, comics, public art, exhibition, performance.

- Record stories from all stakeholders about the ecologies and communities they experience and speculatively want. Story-based approaches effectively built trust and a common language for the beautiful, sustainable, and just communities called for in the NEB.
- Support novel education approaches and initiatives that meet all people where they are, across race, ethnicity, immigration status, age, sexual orientation, gender, and family status.

3. Approach “care” in place-based, neighborhood-centered, and co-productive ways:

Greening is core to achieving the goal of liveable neighborhoods. But such greening must be inclusive and equitable both in terms of planning and access to benefits across neighbourhoods. Currently it is not. A prerequisite is that local communities should have some agency in decision making processes. An emerging area of sustainability research and practice is stewardship, which focuses on care, knowledge, and local agency as pathways to sustainable outcomes. Focusing research attention on local stewards, including identifying pathways to foster intergenerational stewardship, can amplify the often less seen, but crucial everyday practices that shape our neighborhoods, communities, and landscapes. Extending feminist ethics of care to include non-human nature helps us adopt more reciprocal relationships between humans and other living systems. This has been part of Indigenous worldviews for millennia. Appreciation is growing for what such epistemologies can teach us in sustainability, including in sacred and kin-centric ecologies. We must recognize that place attachment and social cohesion must be actively nurtured.

Specific recommendations:

- Recognize and support local and citizen-driven stewardship as critical elements of care to nurture neighbourhoods that are more resilient, sustainable, liveable, and just.
- Support local, citizen- and civil society-driven place-attachment and social cohesion.
- Support research on networks of stewardship and care, including the role of small civil society organizations, citizen groups, and small enterprises that support stewards.
- Expand art-centered approaches to engagement with the ideas, ethics, and techniques of greening.
- Respect and learn from local Indigenous people, immigrant communities, traditional environmental knowledge keepers, and people of all ages and backgrounds.
- Study how neighbourhoods of migrants and immigrants bring their own visions of nature with them, which can yield powerful tools in engaging them as stewards of the environment.
- Recognize the wisdom that individuals and communities have gathered, and nurture pathways that support intergenerational stewardship for more equitable, green, and caring neighbourhoods that can allow people to live in and with their community (i.e., “lifelong stewards of place”).
- Support participatory models that involve all stakeholders.
- Nurture continued engagement and place connection after projects are implemented. Whereas professionals typically see the delivered project as the end, residents do not, and indeed cannot.
- Build neighbourhoods that are both green and affordable, that nurture small enterprises.

4. Expect innovative transdisciplinary conferences and public-facing festivals:

Trust, openness, and generosity is the foundation of transdisciplinary action. We must not underestimate how difficult it is to develop shared visions and working relationships with people with widely diverse personal and professional realities and experiences. To achieve the aims of the NEB and Cluster 6, the knowledge workers practicing in multiple ways of knowing must spend time together, building trust, a common language, and shared values. Such trust building requires (1) shared time together that is not always found during the transactional activities of building a project; and (2) joined transdisciplinary events in which people get to know each other and learn more about how to share ideas, varied conceptual understands, and methods.

Specific recommendations:

- Support truly transdisciplinary professional events, joining scientists, practitioners, and creatives into mixed conversations about shared values, methods, and knowledge building.
- Support public-facing festivals that are both entertaining and informative about the goals and outcomes of the NEB, public participation, and the Green Deal; include multisensory approaches to exchange and learning, such as food festivals, exhibitions, and interpersonal games.

- Maximise the voices of the participants, the knowledge exchange, and potential collaborations by actively shifting from normative presentations of single speakers facing an audience, to multiple groups presenting themselves and their ideas in more “circular” formats.
- Develop collaborative skills of learning, resolving conflict, co-creation, and acting together.

In Conclusion: Weaving together art, science, land management, and public perspectives through transdisciplinarity — especially when it is grounded in place — strengthens stewardship and produces new knowledge that we would not otherwise create. By posing (1) innovative and inspiring questions; (2) engaging multisensory, human scale, and emotion-laden methods; (3) practicing co-learning; and (4) suggesting new routes to effective implementation and sustainable maintenance; we expand the arena of who participates in stewardship and how

While we celebrate the potential for transdisciplinary collaborations, we know they are fragile; they hang in the balance of individuals willing to stretch outside their comfort zone and go beyond the zones for which their disciplines reward or compensate them. Trust is both essential and difficult to nurture. Co-productive processes and transdisciplinary spaces require sustained support, staffing, and flexible resources in the spaces between disciplines and sectors. They may require that common rewards and modes of operations in working groups, university departments, and government agencies adapt to new approaches.

Support for local participation, care, and stewardship is key. Fostering networks that span the local, place-based work embedded in communities while sharing ideas and relationships across wider scales is critical. Such networks share a focus on social-ecological-technical systems and span the domains of research and practice — welcoming artists along with planners, land managers, educators, policymakers, and local activists — and can provide participants with access to diverse, small groups that are the lifeblood of transdisciplinarity. Supporting such nurturing spaces of co-production is challenging, but critical if we hope to braid together multiple ways of seeing, knowing, and acting to create solutions to the wicked problems contemplated in the NEB and Cluster 6.

Submitted

(by a mix of scientists, policymakers, practitioners, architects, planners, and artists):

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