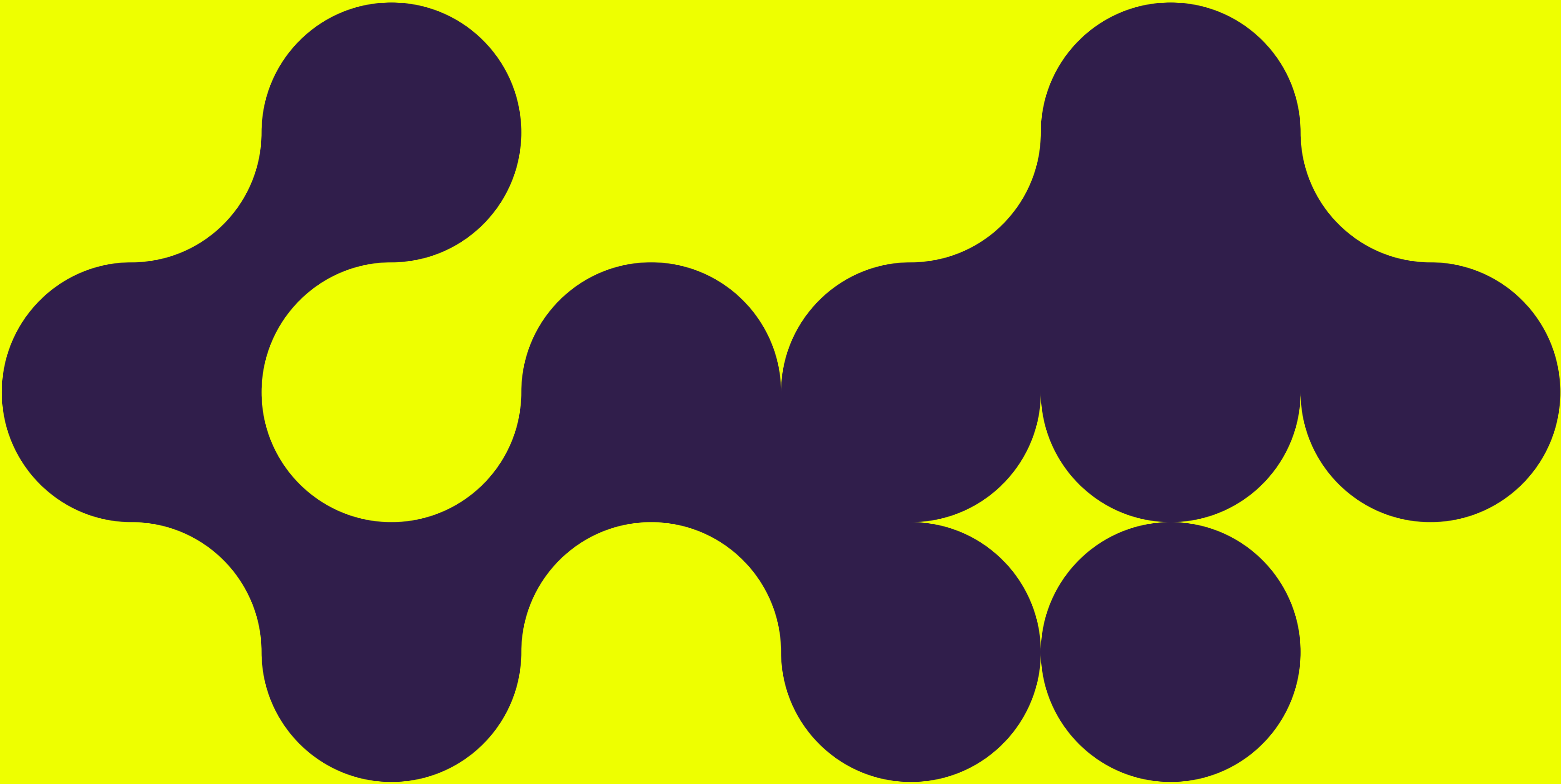


NEB OUR HOODS FOR TOMORROW



Funded by
the European Union

Call to Action: Join us in Transforming our Cities!

The future of our cities is in our hands. It is our shared responsibility to make living and working in our urban spaces liveable, sustainable, and inclusive. Over the past few years, the New European Bauhaus has grown into a major movement, inspiring exactly this – through collaboration, innovative approaches, and the courage to explore new paths. We are deeply grateful and proud that “Creating NEBourhoods Together” is part of this expanding movement. With our results and methods, we hope to serve as an inspiring model for other European cities, demonstrating how sustainable and inclusive urban development in line with NEB principles can succeed.

When we launched “Creating NEBourhoods Together” in October 2022 as one of the first six Lighthouse Demonstrators, we stepped into uncharted territory. We embraced an open process, without knowing exactly where it would lead us. The willingness to engage with the district, its people, and the process of mutual learning has been our guiding principle. This experience has shown us that change happens through collective action, shared responsibility for our environment, and the creation of strong networks.

The challenges of urban development – climate change, social inequalities, and the transition to a circular economy – can only be tackled through interdisciplinary and cooperative solutions. This handbook documents the methods, strategies, and processes developed in our pilot projects – serving as both an inspiration and a guide for others who wish to follow similar paths.

Our goal was not only to gain recognition with NEBourhoods but also to bring the existing civic engagement and the city's planning strategies even more into the public consciousness. At first, we had to build trust, establish connections, and become part of the local structures. But over time, this careful approach evolved into a shared presence, a heightened public recognition. Change does not happen in the shadows – it must be seen, felt, and impactful, generating resonance and encouraging others to take action.

Our NEBourhoods actions are broad in scope, addressing the challenges of the future. They focus on the design and use of public spaces for all generations, the upgrading of residential buildings, and circularity in the building stock. They explore innovations for increased biodiversity, regenerative energy, local

mobility and sustainable food systems. Through these actions, we contribute to the sustainable transformation of urban spaces and serve as both an inspiration and a role model for other European cities.

A key instrument in our work has been the NEB Compass, which enabled us to assess and further develop our NEB actions based on the principles of sustainability, aesthetics, and inclusion. Combined with the NEB Toolbox, it not only supports our work but also helps systematically integrate our insights and the NEB principles into many other projects across Europe.

Numerous networking opportunities, the NEB Festival in Brussels and exchanges with other lighthouses, and have laid the foundation for broad replication. By networking and sharing our experiences, we strengthen a movement that will endure in the long term.

We are extremely grateful to the European Union for the NEB initiative, for funding the Lighthouse Demonstrator NEBourhoods, for the content-related support, and for the opportunity to implement creative and innovative ideas in Munich-Neuperlach in the spirit of the NEB. We also especially thank the people in the neighbourhood who engaged with us and contributed boldly and passionately to the NEB actions. Many were already actively involved in their neighbourhoods and continue to drive change forward. Their commitment keeps this movement alive! This project was only possible thanks to a large interdisciplinary team of representatives from science, culture, the administration and business, who, together with citizens, brought NEBourhoods to life. All consortium partners are listed in the detailed team overview in this book.

The NEB Lighthouse Demonstrators and the many NEB actions and projects that have emerged since the foundation of the NEB initiative are now part of a pan-European movement – a testament to the way in which many small changes, when combined, can drive profound transformation.

Now it's your turn: Get inspired and become part of this movement! Take responsibility for your neighbourhood, contribute your ideas, and create liveable, sustainable, and inclusive spaces. Transformation begins in our neighbourhoods – together, we can turn dreams into reality!



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Beautiful, Sustainable, Together: Achieving a New Qualitative Level

Transformation in the spirit of the
New European Bauhaus

The application to be one of the six NEB Lighthouse Demonstrators brought about the creation of a powerful alliance for social-ecological transformation in Munich: Together with thirteen other institutions, the Founding Partners, comprising the City of Munich, the Technical University of Munich and the start-up and innovation centre UnternehmerTUM, set the “Creating NEBourhoods Together” project in motion – and got the contract.



Stefan Drüssler, Elisabeth Merk und Werner Lang (from left to right)

Four years later, Prof. Dr. (Univ. Florence) Elisabeth Merk, Chief Planner for the City of Munich, Prof. Dr. Werner Lang, Vice President for Sustainable Transformation at the Technical University of Munich, and Stefan Drüssler, Chief Executive of UnternehmerTUM, take stock. They talk about the new quality of collaboration, the shared responsibility for the future-ready development of our society and the need for replication – and last but not least, the resulting economic opportunities for communities.

Elisabeth Merk When I first saw the paper entitled *New European Bauhaus* on my desk, it was immediately clear to me that this was an exciting initiative. I thought of the original Bauhaus 100 years ago – of social innovations, new economic approaches and interdisciplinary methods for designing new ways of building and living. This connection between functionality and aesthetic necessity has always fascinated me. Just as the Bauhaus was about emergence, experimentation and innovation for a new society, today we, too, need a social-ecological transformation for the design of future living spaces. For this reason I knew right away: I want that for Munich.

Werner Lang For me at first it was also the spirit that Ms. Merk mentioned, but also the question: is this just an empty shell or a real opportunity? It very quickly became clear to us that we had a real chance here to re-think urban development in a new way – with partners that would not usually be so easily available at the TU Munich. An especially valuable aspect was the collaboration with businesses, which proved to be essential and exceptionally productive. I hoped at the beginning that these connections would create new instruments for urban development, and for me this wish has been fully and completely realised.

Stefan Drüssler That is really the potential of initiative: it brings together creative industries, the city, universities, sciences, research and entrepreneurship and uses them to create fertile ground for innovations in city districts. And Europe needs more innovation! The New European Bauhaus offers exactly the right framework for this. It enables entrepreneurs and businesses to tackle challenges in ways that contribute to the larger European mission and have a real impact.

Elisabeth Merk To me, it is especially inspiring that the project can be individually defined – with no fixed concept or conditions. In Neuperlach it was not just about making the district fit for the future, but also about which outside impulses can influence it and what contributions Neuperlach can make to the whole of Munich and beyond. Instead of just looking for compromises, this openness allowed everyone to introduce their own ideas, and then reach consensus together. The process gave rise to a new form of co-creation – not just cooperation, but shared responsibility. This principle of *co-responsibility* has created a new quality for me that I would also like to see in further projects in Munich and in other European cities.

“This principle of co-responsibility has created a new quality for me that I would also like to see in further projects in Munich and in other European cities.” Elisabeth Merk

Werner Lang In applied research we are always working with people, buildings and the environment. Nevertheless, at the beginning of this the biggest challenge was engaging with the unknown. In the first workshop, no one really knew exactly what it was all going to be about. But the act of listening, of opening up to new perspectives and of engaging in joint exploration made the process especially valuable. Co-responsibility is an apt expression, Ms. Merk – it’s a matter of true responsibility – not only for Munich-Neuperlach, but for all the large housing estates of the 1970s that can either undergo positive development or fail. This awareness motivated us to discover the potential of



Elisabeth Merk

“We must expand understanding of the principle of circularity and turn it into a holistic understanding of sustainability that encompasses ecological, economic and social aspects.”

Werner Lang

Werner Lang



Neuperlach anew and to develop it further in a targeted way. The project became a shared voyage of discovery in which everyone found their own role, be it at TUM, in business or in urban development. What is crucial is learning from one another and the concrete impact that we can achieve together. It worked because everyone went into the project with great openness and curiosity.

Stefan Drüssler When we look at the current situation in Europe, we can see the urgent need to create new businesses in order to overcome the economic challenges. Entrepreneurship must be a central component of our initiatives. But not just through innovations that are supported by taxpayers’ money. We need sustainable business models that can exist in the long term. So we brought businesses and start-ups together and provided them with a real-life test environment in Neuperlach. For example, we studied the district’s energy supply. How can we promote energy self-sufficiency in Neuperlach? A start-up that enables energy sharing was able to help bring together the various stakeholders and so provide an important building block toward the establishment of an energy cooperative. These businesses start in Neuperlach, but have the potential to expand beyond Munich into Europe.

At the beginning of the project there was a lot of scepticism about the commercial aspect. Many had a not-for-profit perspective and were worried that it was all just about making money. But really it’s about creating innovation that is economically viable and sustainable in the long term. That is the key for the success of such initiatives.

Elisabeth Merk I can build on that thought, because the NEB project makes an important shift in perspective possible. In traditional urban development one often begins with the assumption that a district is deficient and must be repaired. “Creating NEBourhoods Together” views the district of Neuperlach as an important resource and sees its challenges as the potential from which new things can be developed. The mobile MakerSpace, which has been used there now for two years, is a good example – it’s not just about the space or the technology, but about people and their ideas. You can also see that in the NEB Actions such as the 3D-printed ECOLOPES facade elements; it first appears as a single building block, but its creative implementation not only makes birds and insects happy but also improves existing facades and brings about microclimatic changes. And suddenly a small building block develops into a far-reaching improvement of the urban living space. These are amazing experiences and insights for me, I am really delighted.

Werner Lang These kinds of creative NEBourhoods Actions show that research can contribute to a better life by, as your example illustrates, introducing biodiversity into the neighbourhood, creating a healthy environment and providing people, animals and nature with a liveable future. We must expand understanding of the principle of circularity and turn it into a holistic understanding of sustainability that encompasses ecological, economic and social aspects.

In order to change urban environments for the better, we must also look at our building inventory and figure out how these buildings can be used and repurposed, what new economic values will be created and how we can generate the spatial qualities that will offer people something positive. “Creating NEBourhoods Together”



Stefan Drüssler

is showing us that we can improve quality of life, biodiversity and the economic situation all at the same time. All of these are key factors for truly sustainable and circular actions, which can also be replicated and scaled in other cities.

Elisabeth Merk What has impressed me especially is the joint action, the form of participation that occurs here. It's not just about institutions taking the lead, but rather about a dialogue beginning among locals who didn't know one another before and the creation of true neighbourliness. These creative interactions generate new ideas that often go beyond what would have been possible in traditional programmes. To me, transformation means not just doing the same things differently, but truly achieving a new qualitative level. That only works if you promote this kind of creative collaboration – and that is exactly what is happening here in Munich-Neuperlach. It turns out that innovation comes not only from science, but also directly from the real world when such projects are put into practice.

When you empower the population to become active – for exam-

ple through projects like CHILLSPORt, the participation of young people in the design of schoolyards – it fosters a stronger identification with their surroundings. It's about finding their place and recognising their own potential. Performative and artistic approaches help, in that they allow the joint creation of something concrete. Direct exchanges, eye contact and personal conversations are irreplaceable. We learn and act intuitively with one another, without the need for a lot of theory beforehand. This is true empowerment that arises only in real life and in direct communication.

Werner Lang This empowerment happens when people not only work toward their goals but “fight” for them together. Consensus is critical for the successful implementation of transformations, but the broad range of opinions must be considered. The solution lies not in finding the majority, but rather in integrating various perspectives in such a way as to create a common goal. In Neuperlach, this learning process has led us to recognise that it is not about just copying a model, but rather about designing a methodology and a process so that they become usable in other cities. We must set a transformation in motion that rests on broad societal consensus. “Creating NEBOurhoods Together” shows that, when these processes are approached in the right way, they can be transferred easily to other cities and regions without replicating Neuperlach. Such an approach will help other communities design and implement their own transformation processes.

“I am firmly convinced that the New European Bauhaus can really bring about a change in Europe! Cities and districts facing special challenges can then become true solution locations.”

Elisabeth Merk

“In order to allow the methods and processes from Neuperlach to grow, the political will is needed to continue to prioritise the issue. If it is carried onward at a high level it has a good chance of spreading.”

Stefan Drüssler

Stefan Drüssler In order to allow the methods and processes from Neuperlach to grow, the political will is needed to continue to prioritise the issue. If it is carried onward at a high level it has a good chance of spreading. It is also important for the people who have been affected by our activities to carry on the concepts of their own accord. Positive experiences and stories are a powerful tool for creating enthusiasm in others and encouraging them to follow suit.

Another critical factor are the entrepreneurial successes that we hope will emerge. The foundations for new businesses were laid, and it will take time for them to bear fruit. And of course the committed district residents that we were able to motivate – and who will themselves take these ideas further and excite new people in their turn. Old and young people, students, colleagues in city administration; these people have the desire to accept challenges, solve problems and make positive contributions, which will form the basis for further successful ecosystems in Europe.

Elisabeth Merk I am firmly convinced that the New European Bauhaus can really bring about a change in Europe! Cities and districts facing special challenges can then become true solution locations. I am especially excited by the networks that have emerged through this project – locally as well as on the regional level and in many European cities. These networks are unbelievably valuable, because they promote exchange and collaboration and allow the whole thing to grow so far beyond any individual project.

For me, the New European Bauhaus is not just a concept, but a real opportunity to actively shape our future and, most of all, to experience how something changes – tangibly, on our own door step. This project shows us how

democracy and sustainability can function in real life, and that we can all be a part of the change. This is a powerful motivator for me to continue and to keep pushing what was started here forward. There is so much potential – and this is just the beginning!

“Creating NEBourhoods Together’ here in Neuperlach is an amazing and exemplary pilot project. Those exist already in other European regions with similar but different ideas. The principle is the same and the better it is, the greater the urge to imitate it.

You can see that here in Neuperlach, being here today. At least I feel that way, I am so thrilled with everything that I’ve heard that I am practically itching to get the same things started somewhere else. Whether in Portugal or in Finland, where the conditions are of course different. But Neuperlach has certainly set an example.”

Ursula von der Leyen, President of the European Commission



Creating Change Together: Transformation as a Co-Evolving Process

Replication actually refers to the process by which genetic material copies itself – and wouldn't it be wonderful if transformation toward sustainability could simply unwind itself like a genetic programme? If only we had one binding master plan or blueprint to combat the global challenges of our time. But transformation, especially the kind needed to confront today's global challenges, does not follow a predetermined script.



The term “transformation” has gained traction in recent years, appearing in scientific debates and political discourse alike. Some emphasise technological shifts, others focus on social and ecological aspects, but all agree on one thing: transformation means profound change – a shift in structures and mindsets that deeply challenges the ways we live, work and interact. What remains in dispute, however, is how such change can be steered.

coalesce to a living ecosystem of transformation that is able in turn to influence larger societal structures. Transformation, then, is less a blueprint being rolled out than it is a social process involving negotiations, discussions, struggles and learning among all the actors involved – and thus growing, branching and evolving through countless interconnections. It is not something we implement; it is something we cultivate.

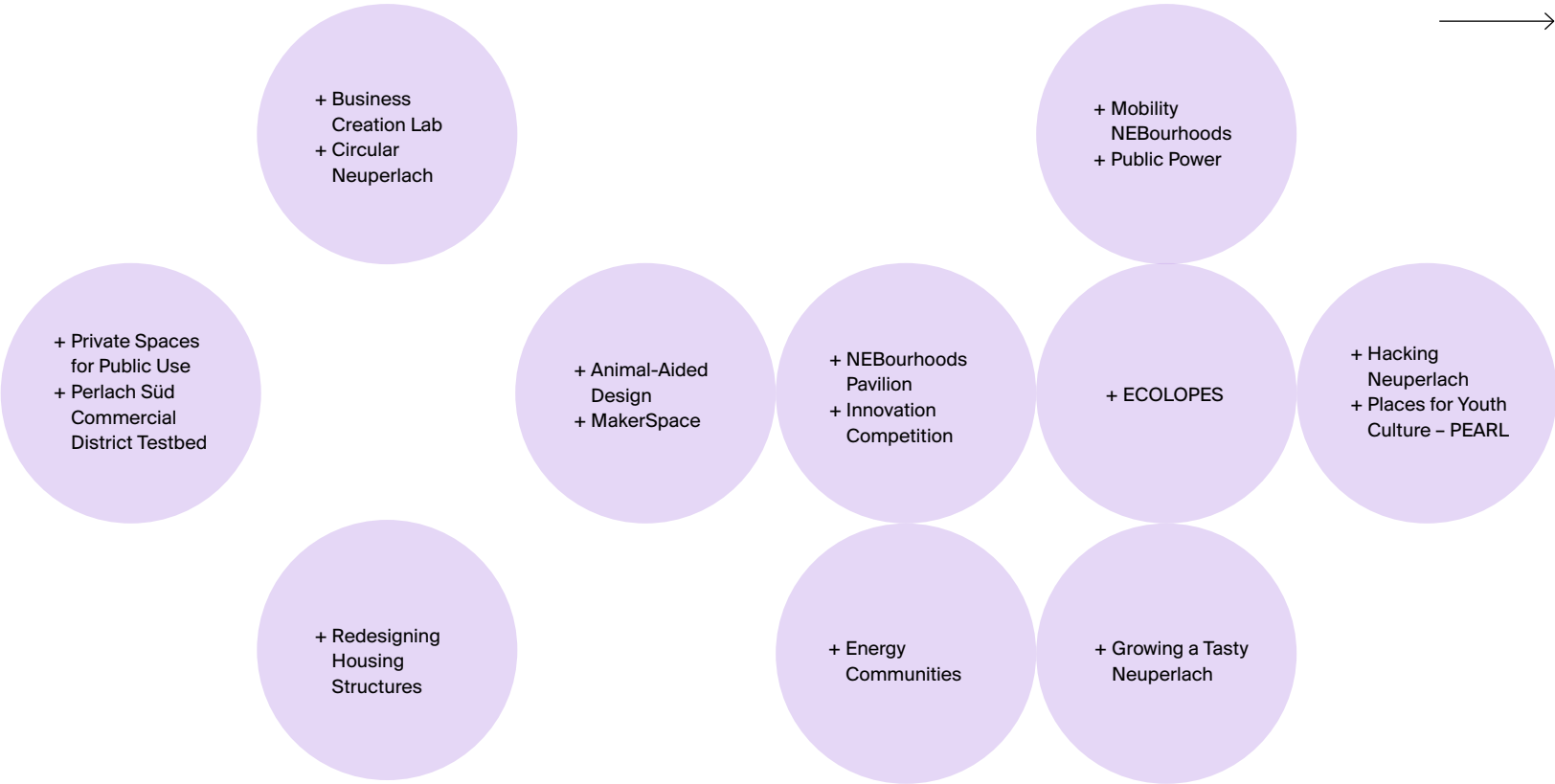
Traditional approaches often assume that global challenges require global solutions – top-down policies, binding agreements and universal frameworks. The New European Bauhaus offers a different perspective: instead of a master plan, it envisions change as an interwoven movement of many. It champions a polycentric approach, where local actors experiment, adapt and innovate within their unique contexts – yet remain connected within a broader, collaborative network.

Research on transformation supports this view, showing that deep shifts emerge through multi-level and multi-actor dynamics. In the beginning, particular protected spaces allow new ideas to take root – small-scale experiments that can, given the right conditions, grow, mature and

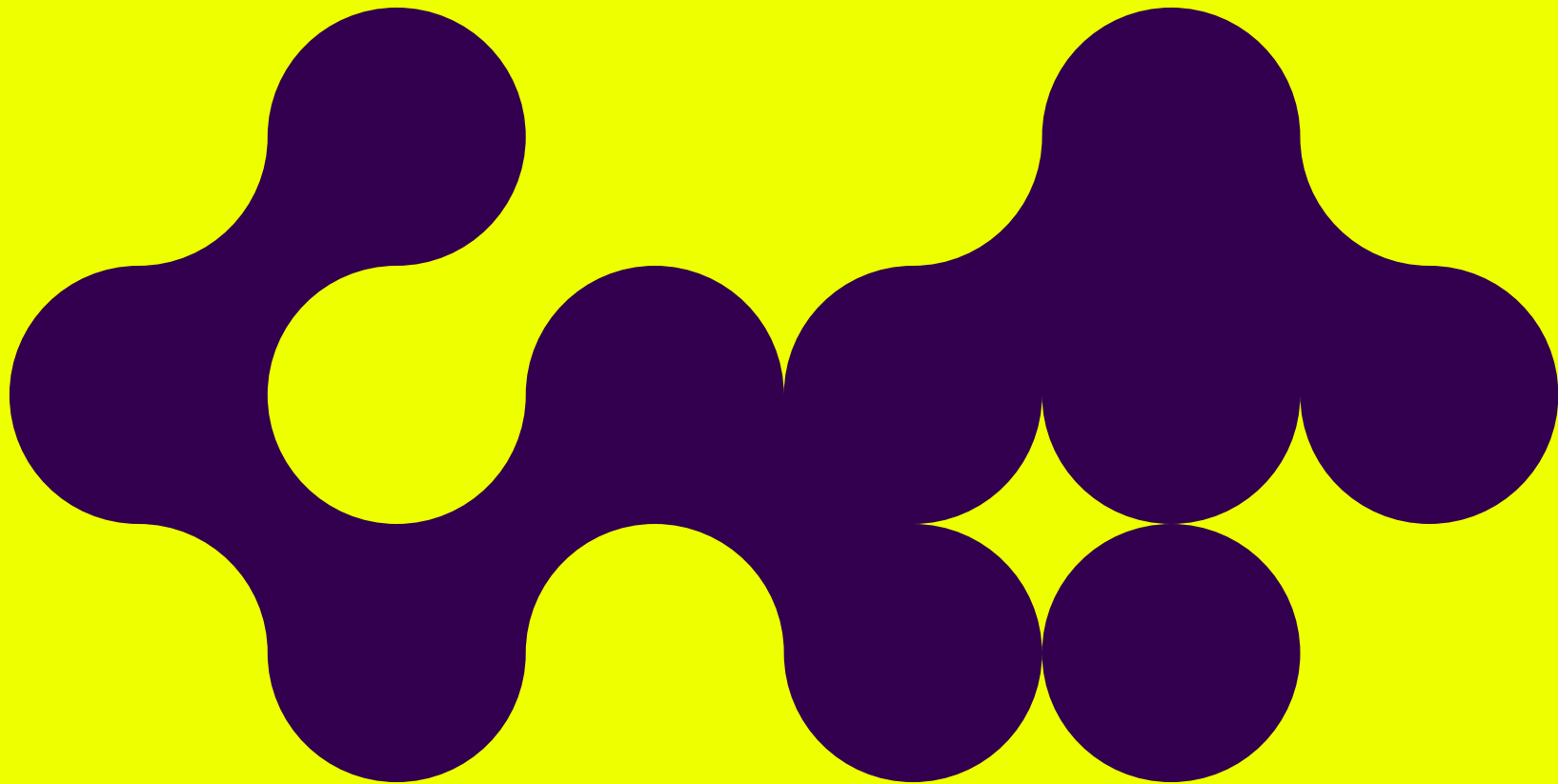
Cultivating NEBourhoods

Creating NEBourhoods Together shares this co-evolving, dynamic understanding of transformation. Rather than imposing a rigid framework, it unfolds as an urban experiment – a shelter for various small-scale investigative urban interventions, each one a seed of change. Decentralized, yet working as a unified ensemble, they are beginning the transition toward a beautiful, sustainable, and inclusive Neuperlach – one that embraces circular thinking, climate neutrality and resilience.

At the outset, the individual interventions may seem scattered at random across the district. But these seeds of change are being carefully cultivated in fertile soil to take root and become visible and tangible in the urban fabric. Over time, they begin to connect with and reinforce one another, forming a thriving network of places, people, and communities. We call them NEBourhoods. These are spaces of inspiration, innovation and empowerment, where residents and stakeholders take ownership and become change makers in the transition toward sustainability, driving change long after the project officially ends.



To cultivate transformation means to engage in a social, inclusive, co-creative process unfolding through real-life interventions, shaped by diverse actors, needs, and conditions – too complex to be planned in detail yet needing to be framed and directed. Rather than prescribing every step, Creating NEBourhoods Together offered two types of setting for collaboration, each of them navigated through simple, adaptive steering tools that allowed for continual learning and recalibration. These tools were not static instructions but navigational aids that helped communities to find their own starting points and pathways to transformation.



Settings and Tools for Urban Experimentation

Setting 1

NEB Actions as Urban Living Labs. These settings functioned as intentional experiments – collaborative testbeds for a variety of sustainable urban development topics in which transformation was explored in real-life settings. Grounded in co-creation, they brought together citizens, academia, businesses, and the public sector, with users at the centre of the process. The core idea was iterative learning by doing: testing, refining, and evolving solutions through prototyping – a process of continuous improvement shaped by real-world experience.

A key element in these co-creation processes was the involvement of artists and creative professionals who introduced new perspectives, challenged conventions, and infused the experiments with aesthetic and cultural dimensions. Their contributions ensured that the transformation was not only sustainable and inclusive but also deeply inspiring – engaging people’s imagination and emotions, making change feel tangible and desirable.

Setting 2

Entrepreneurial Scopes of Action. These settings functioned as entrepreneurship offers and explored through formats such as education, awareness-raising, and targeted promotion how entrepreneurial skill, know-how and mindsets can shape and drive sustainable urban development. They provided entry points for individuals and organisations to take the initiative, fostering a culture of innovation and self-driven transformation.



A Growing Ecosystem of Transformation

The potential of this approach becomes evident when we look at the project figures: In just two years, more than 80 professionals from universities, start-up incubators, the city administration, businesses, and NGOs worked on Creating NEBourhoods Together – engaging in continuous co-creation with over 100 citizens, local associations and organisations, and involving more than 600 students in various ways. Together, they delivered accessible, tangible, and empowering solutions, provided roadmaps and kickstarted actions, many of which are already being prepared for replication.

The following chapters offer insights into how these demonstrators and tools function in practice. They are meant to inspire, to encourage, and to empower others to embark on their own transformational journeys. We begin by outlining the key success factors of our two core approaches: co-creation in Living Labs and Entrepreneurial Scopes of Action. Next, we take a closer look at the ten NEB Actions themselves, providing guiding advice for those who plan to transfer and replicate, sharing the lessons we learned and reflecting on the alignment of our solutions with the values and working principles of the NEB Compass.

However, the essence of the New European Bauhaus is not replication in the sense of mere duplication. The strength of the NEB movement lies in local, tailor-made co-creation, shaped by the unique characteristics of each place. Legal and organisational conditions will always differ, just as each community has its own set of challenges and opportunities. Instead of copying solutions one-to-one, every NEB initiative must weave its own network of actors, uncover local opportunity spaces and collaboratively develop solutions that truly resonate with their environment.

With this in mind, we hope that the following pages will inspire new ideas, provide momentum and instil confidence in those who are eager to take action. After all, if such a transformation can take root in just two years, imagine what is possible when more communities join in – creating NEBourhoods everywhere.

Co-Creating NEBourhoods

What makes co-creation truly work? This question guided us, the Transition Hub Co-Creation Team, throughout the Creating NEBourhoods Together project. We knew that urban transformation could not be achieved through predefined plans or external expertise alone. It needed something more: people willing to shape their own environments, share their knowledge, and create new connections. Co-creation is not just about participation – it is about ownership, trust, and the willingness to explore the unknown together.

Our mission was to align the ten NEB Actions – ranging from energy communities to public space transformations – with the lived realities and aspirations of local actors, while drawing on the expertise of the Munich City administration. To achieve this, we embraced co-creation as a dynamic, iterative approach rather than a fixed methodology. We met people where they were – sometimes over coffee, sometimes in workshops, sometimes in unexpected moments of inspiration. Through these encounters, shared visions emerged, and practical solutions were co-developed.

At the heart of co-creation are the people who bring it to life. That is why we have chosen to illustrate its successes through personal stories. The five portraits presented in this chapter serve as illustrative

examples of the diverse perspectives of the people who made this process possible: local stakeholders, business owners, creative minds, and institutional partners. The stories are not case studies in the traditional sense. Instead, they are glimpses into the experiences of those who co-shaped this process with us. Whether it is a community installing solar panels, an urban gardener finding new ways to bring people together, or a company realising the potential of collaborative design, every story demonstrates a key aspect of successful co-creation.

By sharing these personal narratives, we want to emphasise a fundamental truth: urban transformation is not something done for people but with them. We hope the lessons learned in Neuperlach can

inspire other cities and communities to foster a sense of belonging, encourage collaboration across disciplines, and create places that truly reflect the needs and desires of those who inhabit them. We invite you to dive into these stories – not just to learn about co-creation, but to feel it, as it was lived by those who made it happen.

Related Links



Co-Creation in
Urban Development



Living Lab Designs
by the Pool of Creatives



Jana Köstler

HM:UniverCity / Transition Hub Community Manager

It's a neighbourhood that always felt a bit disconnected from Munich, but in turn developed real pride and a strong sense of its own identity. That's why it was so important to take a step back and really look at what was already there, what initiatives were happening, and to approach the project more as though to fit ourselves into an existing puzzle rather than just seeing stakeholders as project staff.

How do you approach local stakeholders? This is an important question for any participatory working project. Our approach treats local stakeholders as equal partners in the co-creation process.

NEBourhoods started with defined focus areas – the ten NEB Actions. Our task as co-creation coordinators was to adapt these solutions to the local needs of Neuperlach and co-develop them further. What we actually did can be best described as a process of alignment. We identified common ground – areas where our proposals and those of the stakeholders overlapped.

Usually, we started with something informal, like an introduction and meeting over coffee. We often visited the stakeholders, since their time and resources were limited. We tried to understand them both in their official role and as an individual person. If the person represented an institution, we explored the challenges, opportunities, goals, and the funding structures they were working within. We also shared the topics we were bringing to the table. Often, shared goals or efforts emerged organically during the conversation.

It wasn't a bottom-up approach in the sense of arriving without any ideas and

just seeing what was already there. Instead, it was about identifying where people already had ideas that were aligned with ours. This principle was important because it valued and built on existing efforts rather than imposing "better ideas" from the outside. I believe this respectful approach to what was already in place was a key success factor for us in this neighbourhood.

Tina Zoch

Münchner Gesellschaft für Stadterneuerung GmbH / Administration Counterpartner

As a bridge between the administration and civil society, close collaboration with citizens and urban stakeholders has always been at the heart of our work. Through our participation in Creating NEBourhoods Together, we’ve had the chance to collaborate with an broader range of partners, including universities and entrepreneurship centers. It’s been an incredibly enriching experience, reinforcing once again the value of openness and the willingness to embrace new perspectives and worldviews.

One of the most pivotal moments for us was the introduction of the so-called “caretaker teams”. At the beginning, the Living Labs were mainly managed through a partnership between academia and the co-creation coordinators. But when we expanded each core project team to include actors from the administration, entrepreneurship and the pool of creative professionals, we witnessed a significant shift: It allowed us to better understand

the project’s full potential and limitations, improved collaboration efficiency, and introduced a new level of transparency. And it was this transparency that proved to be crucial in building trust, preventing misunderstandings, and ensuring long-term, sustainable cooperation.

The NEBourhoods Living Labs have shown me the transformative power of people coming together to co-create and shape

their own neighbourhoods. To make this a reality on a larger scale, we need to build the right conditions: supportive institutional and legal frameworks that encourage and secure collaboration across local civil society, different levels of government, universities, and businesses. With these foundations in place, we can achieve the social and ecological transformation that truly reflects the spirit of the New European Bauhaus.



Bülent Askar

Perlacher Herz / Manager



The Perlacher Herz is a neighbourhood centre which offers a wide range of activities for people of all genders and age groups. The building will be the first to produce electricity on its roof for the energy cooperative established as part of NEBourhoods. In addition, the Perlacher Herz is home to one of the raised garden beds of Growing a Tasty Neuperlach.

For me, it was new to see how it all worked. And I was curious about what would come out of it. And all the ideas that came out of it were really very interesting. This is not a project that comes along and that’s the end of it. Rather, it keeps going. And the most important thing for me personally was that everyone who participated gained a new perspective.

How the academics work, how everything is organised, how it is done – I found it to be highly professional. And the people who were involved, they were really 100% committed. And I thought that was really cool.

I can also add what I find interesting or surprising, which is that it is very practical. Because I believe universities have the reputation of being somewhat abstract. But it was all very practical and useful. Regarding the results, let me start with the solar panels. The system really helps us a lot. When it comes to saving costs and doing something for the environment, I find it really fascinating. This way, we can

also set an example for our children, our youth, and even our seniors. It’s doable, and this new energy isn’t actually that expensive. That really impressed me because the money we’re saving now can really be invested in education. For our youth programs, for senior activities – it’s truly something.

As for the raised beds, now, that’s not my thing, but I saw the older ladies, our seniors, and they were really happy about them. The raised beds are high enough so they could easily work on them and participate. And that becomes their realm. No one else interferes; they do it themselves. I think it’s great that we’re integrating people like that back into our facilities and also into society.

And there was even more: Because of all these ideas and the many conversations we had, new thoughts naturally arise about what we can take away from all these discussions, even if the things we think of don’t happen immediately.

For example, there was this idea about bringing electricity from the roof to the street. Well, we have a food truck and we are going to put a kitchen in it that needs electricity. And I say, hey, if that’s possible, then we could definitely use our own solar power from the roof or generate electricity on the roof of the truck. That would be great. I would never have thought of that before.

Christina Schepper-Bonnet

Team of Excellence Culture Creative Industries Munich / Curator of the NEBourhoods Pool of Creative Professionals

“People will embrace or drive change when they see it. The quality of our living environments is essential, and art and culture play a key role in improving it.” In my view, this ambition and conviction of the New European Bauhaus is essential. Because it is anchored in the sensitivity for the living environment that – in principle – all humans possess. And which will therefore give significant momentum to the green transition.



And then there are humans who have special sensitivity and the skill to design change – the process as well as the modifications that will come of it – as something meaningful, desirable and thus embraceable: artists and creative professionals.

Just to avoid any misunderstanding – I am not speaking of these actors as superhero geniuses. This would mean making oneself comfortable in a kind of expectation of salvation. Climate change isn’t taking place on a stage or on a screen, it’s real and it will need all of us to tackle it. But art and culture can enhance the impact of how we achieve this.

One beautiful NEBourhoods example: the Urban Gardening Hexamodules. A product designer, an architect and a visual artist worked together to design these modules, which are cost-effective to produce with simple crafting techniques. Everybody can create the basic elements for an urban garden: raised beds and benches to rest on.

Their functionality can also be easily expanded to enable irrigation, shading, storage of material or even barrier-free gardening. Like a puzzle, these elements can be combined in any number and constellation to form unique garden landscapes. At the same time the hexagons foster a sense of belonging, linking all gardens in the neighbourhood, and symbolizing the district as a whole, as it reflects its central square.

That’s where I believe our true potential lies – in daring to explore genuinely new experiences, in cultivating a collaborative bond with our living environment, its inhabitants and their cultural heritage, and in translating these insights into innovative practices and designs that drive meaningful, lasting change.



Sofia Gronard

Gronard GmbH / Head of Communications

As a Neuperlach-based company, we were part of the collaborative development of the neighbourhood stations, NEBourhood Hubs. At first, we were a bit sceptical, as it was a very open tender. However, it quickly became clear that this project was of great importance.

Often, we are only brought in at the end of a project. But this was completely different: We actively participated in workshops with Neuperlach residents, other companies, startups, and NEBourhood participants. That input was crucial in allowing us to design the stations in a way that truly fits the local context. And more than that, we were able to co-develop them.

Our expertise, combined with the local needs and the knowledge and experience of the other participants from the Technical University of Munich and the project, was key to this process. That’s why NEBourhoods was such a great experience

– being able to actively shape it has been incredibly valuable to us.

For us as a company, the collaboration with NEBourhoods brought in even more potential because we are developing a new product line from it that goes far beyond just bicycle parking facilities. It’s about creating spaces for interaction and developing urban areas. We had already been considering something like this, but the project gave us the necessary push to dive deeper into development.

Fostering Urban Development through Entrepreneurship: Insights and Replication Opportunities

Urban transformation thrives on innovation, collaboration, and active community participation. Our vision is to foster a culture of entrepreneurship that not only reshapes the urban landscape but also aligns with the EU Green Deal's climate, energy and environmental targets. By fostering entrepreneurial thinking, inspiring collaboration, supporting the creation of business ideas, and providing a testbed for start-ups, we aim to create actionable pathways for local communities, companies, students, and start-ups, empowering them to shape their environment. To replicate the activities and initiatives in other cities or districts and to ensure a broader impact, they need to be adapted to the needs of locals and stakeholders.

The project's entrepreneurship process is based on the three following approaches that address three very different stakeholder groups – the residents of the district, university students and start-ups.

Raising Awareness of Entrepreneurship among Neuperlach Residents

The aim of this approach is to inspire and motivate people to take an entrepreneurial step toward developing their own ideas for improving their neighbourhood and to encourage them to become active themselves. For this purpose, a local hub is recommended, where residents who want to get involved can

come together. This space should provide inspiration by showcasing examples emerging from the project. People can also be inspired by a low-threshold, practical, hands-on approach to entrepreneurship. They should be given the opportunity in on-site workshops to turn their ideas into something tangible.

Concrete Support for the Development and Implementation of Business Ideas with Benefits for District Development

This approach is used for academic groups working together with residents: Based on challenges in the neighbourhood, which are defined with citizen involvement, students develop solutions in the form of business ideas. In the best-case scenario, their ideas eventually lead to start-ups. The start-up teams need to

be supported in appropriate formats by university entrepreneurship centres until they reach incubator readiness. In any case, students become acquainted with real life, local challenges and learn to develop solutions in collaborative settings – together with citizens whenever possible.

Provision of a Testbed for Start-ups in the District

Start-ups that have already been founded are given the opportunity to test their products or services in the district, in cooperation with local companies. This linking-up takes place within the framework of a so-called testbed. The requirement for participation is that the start-ups' solutions should address defined challenges faced by local companies and thus create added value on site. The start-ups are brought together with suitable companies

in the testbed and can thus acquire them as initial customers. At the same time, collaboration with the start-ups can lead to an innovation boost for local companies. In addition, innovation competitions can be organised to generate solutions from start-up teams for challenges in the district.

Raising Awareness of Entrepreneurship among Neuperlach Residents

Innovation Space: The NEBourhoods Pavilion

The idea was to offer an “innovation space” in Neuperlach as an interface to connect citizens with entrepreneurship outside the academic innovation bubble. For this purpose, it was important to choose a central location that was either already being used for similar activities or had ready access to such

facilities and therefore offered potential synergies. The decision was made to set up a flexible, temporary building in a well-frequented, central area. This pavilion served as the first prototype of the Bavarian start-up WeOn GmbH, developed and tested within the project.

“The opportunity to test our first WeOn prototype on-site in Neuperlach as part of this NEBourhoods testbed was a fantastic chance for us to bring our vision to life, further develop our product, and gain visibility on a European level.” Timo Weil, Founder, WeOn GmbH

Lessons Learned

Innovation spaces in the neighbourhood thrive when they are rooted in local identity and leverage partnerships with community insights. A step-by-step approach to the stakeholder citizen groups is required, as well as a flexible working process that develops gradually with the experience gained through interactions.



Steps to Set Up an Innovation Space in the Neighbourhood

1 Tailoring towards Stakeholders

- Adapt offerings and locations to needs of the stakeholder groups to reach and inspire people.
- Use barrier-free language and framing tailored to the stakeholder groups to ensure they understand the purpose and benefits.
- Include feedback opportunities directly at the space to engage the community.

2 Strategic Location, Planning and Design

- Create a project anchor: Establish an identifiable central location to make the project tangible and accessible to residents.
- Choose the right location: Ensure visibility, accessibility, and a barrier-free space. Ideally, position it so that offers are clustered.
- Design the space: Use a building that reflects the values and spirit of the New European Bauhaus. The space should encourage creativity and collaboration among different stakeholders.
- Pay attention to the formal procedures: Bear in mind the necessary steps to be taken with the authorities when preparing and submitting a building application.

3 Practical Facilities and Availability

- Ensure that the space is appropriately sized for planned activities and equipped with essential infrastructure such as heating, electricity, water, and restrooms.
- Maintain regular opening hours to be consistently available for residents so that you can inform them about the project and its offerings.
- Provide multipurpose accessibility, making the space available for the community as a meeting spot for co-creation and innovation activities.
- Consider precautions against vandalism and strategies for dealing with damage to the building.

The President of the European Commission, Ursula von der Leyen, with the model of the NEBourhoods Pavilion





Raising Awareness of Entrepreneurship among Neuperlach Residents

MakerSpace Container Workshop and Scholarships

Located near the “Innovation Space”, the MakerSpace Container Workshop – a mini version of the two large MakerSpace workshops in Munich – brought the “DIY” world to Neuperlach. It allowed people to get to know and try out creative tools like 3D

printers and laser cutters and involved residents in hands-on projects. Scholarships granted 30 people free access to the larger MakerSpace facilities, enabling them to realise creative projects with professional guidance.

“The Neuperlach scholarship has opened up many design possibilities for me – not only for clothing but also for the interior design of my own store in Neuperlach. Access to opportunities for implementation greatly increases the creativity potential. Having resources, ideas to implement, and guidance is wonderful.” Katja Heidrich, founder, MABLE

Lessons Learned

A Mini-MakerSpace in the neighbourhood can be a good way to get people excited about practical, entrepreneurial activities. What is needed is a regular supervisory presence on site and low-threshold opportunities to get involved. A regular presence can also help to identify suitable candidates for a scholarship and explain offers. In addition, there must be a well-thought-out process to provide ongoing support to scholarship holders from the first touchpoint to the realisation of their ideas.

Steps to Set Up a MakerSpace Container Workshop

- 1

Tailored Offerings and Accessibility

 - Choose a visible and accessible location for maximum community engagement.
 - Design the container attractively and offer hands-on activities for families to reach a broad target group.
 - Maintain regular opening hours, including on weekends; ensure the space is operational regardless of weather conditions.
- 2

Partnerships and Collaboration

 - Participate in local events to boost visibility and awareness.
 - Collaborate with local institutions and companies to enhance the scope and impact of activities.
- 3

Follow-up

 - If possible, secure funds for lasting opportunities or follow-up programmes. Make sure a new location is easy to reach and offers are well known.

Steps to Provide MakerSpace Scholarships and Support Scholars

- 1

Attracting the Target Group

 - Analyse and understand the target group to tailor the offer and its communication effectively.
 - Create a simple, user-friendly application process.
- 2

Guidance and Support

 - Offer consultations and examples of potential projects to make it easier for applicants to begin with the scholarship and to remove any possible barriers.
 - Create a Buddy System for scholars to provide guidance and support in the new environment.
 - Motivate scholars with regular meetings and project discussions to keep them engaged.
- 3

Create the Desire to Follow the Examples Set

 - If scholarship holders agree, let them tell their story and approach the local media to cover it. Reach out to young people in schools and apprenticeships with the message to create new visions for their professional lives.

Concrete Support for the Development and Implementation of Business Ideas

“Hacking Neuperlach” – Tackling Neighbourhood Challenges with Entrepreneurial Solutions

“Hacking Neuperlach” is a Hackathon format for students from universities that connects urban development challenges with entrepreneurial education, fostering collaboration among students, businesses, civil society, and local government. The programme empowers interdisciplinary student teams to develop innovative, sustainable solutions for real-world challenges, reflecting the values of the New European Bauhaus: “beautiful, sustainable, together”.

In action-based learning formats, students are guided to explore problem spaces, generate ideas, and develop prototypes. They are supported by experienced educators, coaches, and various stakeholders who can offer valuable insights into the problem and the specifics of the neighbourhood. The aim is to enable students to develop suitable solutions for the district while gaining new perspectives by engaging in a dialogue with stakeholder groups outside the innovation bubble.



Lessons Learned

Bridging entrepreneurship education and urban realities is hard and takes some time to get used to. However, therein lies great potential for developing unexpected ideas, learning from one another and helping students understand the local context in which they are living and working.

To support replication and deepen other educators’ understanding of the NEB values, three dedicated videos – covering beautiful, sustainable, and together – have been created. It is targeted to students who are enrolled in an entrepreneurship course. These resources can be seamlessly integrated into flipped classrooms or online teaching formats, enabling other educators to adopt the Hacking methodology their institutes of higher learning. The videos are available via NEBourhoods.de

Related Links



Hacking the City – Entrepreneurial Education Formats in Urban Development



Learning materials: Videos about the NEB Values

Steps to Run the Hacking Workshop Format

1 Plan & Prepare

- Collaborate with stakeholders (civil society, businesses, administration and government representatives) to identify relevant urban challenges. Use co-creation workshops to gather diverse perspectives.
- Prepare the curriculum and learning materials by integrating information about urban planning and development as well as the NEB values. Use the videos mentioned earlier, as well.

2 Execute & Learn

- Support your student teams on their entrepreneurial journey by inviting external perspectives, if possible, to share their insights and points of view.
- Guide teams through problem exploration, ideation, and prototyping while incorporating iterative feedback from all stakeholders involved.

3 Show & Tell

- Organise a final event in which students present their solutions to stakeholders, receive feedback, and explore opportunities for further development.
- Make this a public event and invite different stakeholders to create a learning environment for everyone.





Concrete Support for the Development and Implementation of Business Ideas

Business Creation Lab

The Business Creation Lab is conceived as an equity-free preincubation programme designed to nurture and accelerate innovative start-ups. The programme is specifically tailored to support ventures aligned with the project's thematic focus and the NEB values "beautiful, sustainable, together".

The Lab's overarching goal is to transform promising early-stage ideas into market-ready businesses. Teams consisting of at least two members and possessing a well-defined business idea related to these fields are eligible to participate in the Lab.

Lessons Learned

Start-ups, with their innovative spirit and agility, are poised to play a pivotal role in achieving ambitious goals in urban development. Their unique characteristics make them well-suited to address multifaceted challenges and to contribute to the creation of sustainable, inclusive, and vibrant neighbourhoods. Support for start-ups in this area should be just as flexible, wide-ranging and customised.

Steps to run a Business Creation Lab

1 Define the Fields

- Key areas like urban biodiversity, circular economy, renewable energy, smart cities and social innovation provide a rich landscape of opportunities for start-ups to contribute to sustainable urban and green transformation.
- Actively seek early-stage start-ups whose innovations align with the defined key areas.

2 Customise Support

- Go for a flexible programme structure to attract and support teams continuously and allow them to create their own development path.
- Provide different programmes depending on the teams' maturity level and specific needs.
- Give access to the resources most relevant to the teams' stage of development.
- Provide mentorship and networking opportunities to accelerate the teams' development.
- Support teams with technology-driven ideas in early stages to reach incubation readiness through an extended support timeline.
- Help more mature teams transition from a validated idea to a market-ready product or service.

3 Provide a Testbed Interface

- Motivate teams to test their ideas in cooperation with established companies and thus take the opportunity to win lighthouse customers.
- Create a bridge to testbed offerings.

Provision of a Testbed for Start-ups in the District

Testbed: Fostering Collaboration Among Local Businesses, Start-ups and Municipal Departments

The testbed is bridging start-ups and established entities for urban innovation. Structured networking fosters collaboration among local businesses, start-ups and municipal departments. Designed to align with the European Green Deal, the testbed offers a platform to test innovative solutions through a variety of formats.

One option for implementation is a testbed in an industrial area of the district, where local companies can be connected with innovative start-ups. Another option is to utilise existing innovation formats organised by the cities, such as a municipal innovation competition in which start-ups develop and test solutions to challenges identified by the city's departments. The topics of these challenges can be tailored to the requirements of the district. These partnerships facilitate a deeper understanding of local needs and help pilot urban-focused solutions.



Lessons Learned

For an urban industrial area, the structured provision of contact zones, coupled with diverse engagement formats, creates a robust framework for fostering innovation-driven collaborations between start-ups and local businesses. In the case of a municipal innovation competition, cities should tailor the format to their specific goals and ensure that dedicated resources are available for adapting to challenges. Supporting start-ups in navigating public-sector dynamics is essential for success and long-term impacts, either on the city itself or on other public customers.

Steps to Develop a Testbed for Urban Innovation

1 Structured Networking Opportunities

- Organise diverse formats, such as Demo Days and bilateral sessions, to cater to different stakeholder needs.
- Use both physical and digital platforms to maximise reach and engagement.

2 Integration into Municipal Programmes

- Collaborate with local innovation challenges to align testbed activities with broader urban development goals.
- Leverage municipal support to address challenges faced by start-ups, such as navigating regulatory processes.

3 Trust-building and Stakeholder Engagement

- Dedicate time to fostering trust between traditional businesses and start-ups.
- Focus on personalised approaches, such as tailored interviews and one-on-one consultations, to build meaningful connections.

Steps to Implement a Municipal Innovation Competition

1 Challenge Definition and Stakeholder Alignment

- Identify urban challenges in collaboration with municipal departments to ensure relevance and feasibility.
- Frame challenges clearly to attract targeted and innovative solutions.



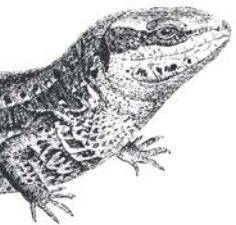
2 Streamlined Application and Evaluation Processes

- Launch an open call with clear criteria and accessible submission processes.
- Engage multidisciplinary evaluation teams, including urban planners and start-up experts to ensure diverse perspectives.

3 Support for Implementation and Integration

- Provide dedicated support staff to guide start-ups through public-sector collaborations.
- Facilitate co-creation processes that align start-ups' solutions with city needs, allowing time for adaptation.

Shaping Cities for People and Wildlife



NEB Action: Animal-Aided Design

Key words

wildlife in the city • biodiversity • cohabitation •
urban species diversity • spaces for people •
wildlife inclusive design

Partner

Studio Animal-Aided Design; TU Vienna,
Institute of Urban Design and Landscape
Architecture



Urbanization is advancing rapidly across the globe: Today, more than half of the world’s population lives in cities, and projections indicate that this proportion will continue to rise. Yet, as cities expand, the habitats of countless animal and plant species are shrinking dramatically.

In addition to climate change itself, the loss of biodiversity is one of the greatest threats to the foundation of human existence. Against this backdrop, Animal-Aided Design (AAD) is gaining importance. The aim of this approach is to design urban environments that benefit not only humans, but also wildlife, such as insects, birds, bats, squirrels and hedgehogs. It seeks to integrate wildlife-conscious design into architecture and open space planning, enhance human-nature relationships and improve city dwellers’ quality of life. The goal is to create sustainable neighbourhoods that reconnect people with nature. The method is based on participatory design processes that strongly involve local stakeholders. AAD supports the development of green infrastructure that not only provides aesthetic value but also enhances animal diversity. It can be implemented at various planning scales, from individual buildings to entire cities, and focuses on carefully selected target species – animals that are particularly suited to the location.

But how can this promising approach be scaled up? As part of NEBourhoods and with Neuperlach as a case study, Studio Animal-Aided Design has developed a transferable, co-creative process which will be presented step by step in the following sections.



1 Biological and Spatial Analysis

In order to identify the animal species pool, available biological data on species occurrences within a 20 km radius of the centre of the project area are collected. Information is typically retrieved from databases of the species mapping by the State Environment Agencies, as well as the GBIF (Global Biodiversity Information Facility) and, where available, local biodiversity monitoring groups, species protection reports or data from local

conservation NGOs. A spatial analysis of the built environment, types of green space and potential habitat connectivity is undertaken, looking at registered habitat types, site limitations and barriers to migration. The potential for certain species to reach the project site is mapped on an aerial picture or map of the site and the surrounding area (roughly 100–200m out).

2 Target Species Selection

Target species represent a selection of particularly suitable animal species for the neighbourhood that should be prioritized in future biodiversity measures. For their identification, socio-cultural criteria, conservation aims, the noticeability of the species and possible human-animal conflicts are assessed. To gather local knowledge and involve important stakeholders, a workshop for the participatory selection of suitable target species is recommended. Local stakeholders may include housing associations, owner or tenant representatives, maintenance firms, experts from local biodiversity NGOs, and representatives

from the various biodiversity-related departments of the local government.

Information about key animals and animal groups can be presented in the form of species cards, which include the following details: chance of direct experience (noticeability), potential for conflict, legal protection and conservation status, local references (e.g., nearest sightings), and critical measures. In several rounds, workshop participants are invited to discuss the suitability of different species based on the following questions:

- What is captivating?**
Which species will residents be enthusiastic about?
- What is low-threshold?**
For which species could a great effect be achieved with little effort?
- What is exemplary?**
For which species could a specific measure be implemented quickly and easily as a demonstrator?
- What is at risk?**
For which species are urgent measures needed in the area?
- What is typical?**
Which species have a strong local connection?



3 Site-Specific Design in Living Labs

After completing the analyses and defining the target species, the findings can now be applied through the implementation of measures tailored to a specific location. Building on the principles of the New European Bauhaus, their development is carried out collaboratively with experts from other disciplines,

creatives, local stakeholders, and end users in joint workshops. The actual design of the co-creation process can and should vary depending on the specific requirements of the target group and location. As part of the NEBourhoods project, we developed and tested two concrete approaches.

NEB-Demonstrator

Youth Centre Meets Animal-Aided Design

A local youth centre wanted to enhance biodiversity in their garden. We organized all-afternoon workshops to apply AAD, focusing on a sample selection of three target species: the sand lizard, the redstart and the hairy-footed flower bee. Together, we built simple but highly effective demonstrators in a second

workshop, while the City of Munich oversees the maintenance of the green area. During the process, we tested various participatory tools and props for hands-on outdoor site analysis, as well as methods to sustain (children's) engagement.



Co-Envision

With the use of props and activities we explored the questions: Which animals have been seen in the garden? Which areas are most used by kids? What are the animals' needs?



Co-Design

With the kids: Which habitat elements are suitable? How and where do they fit in the garden? With the head gardener included: What are the maintenance constraints?



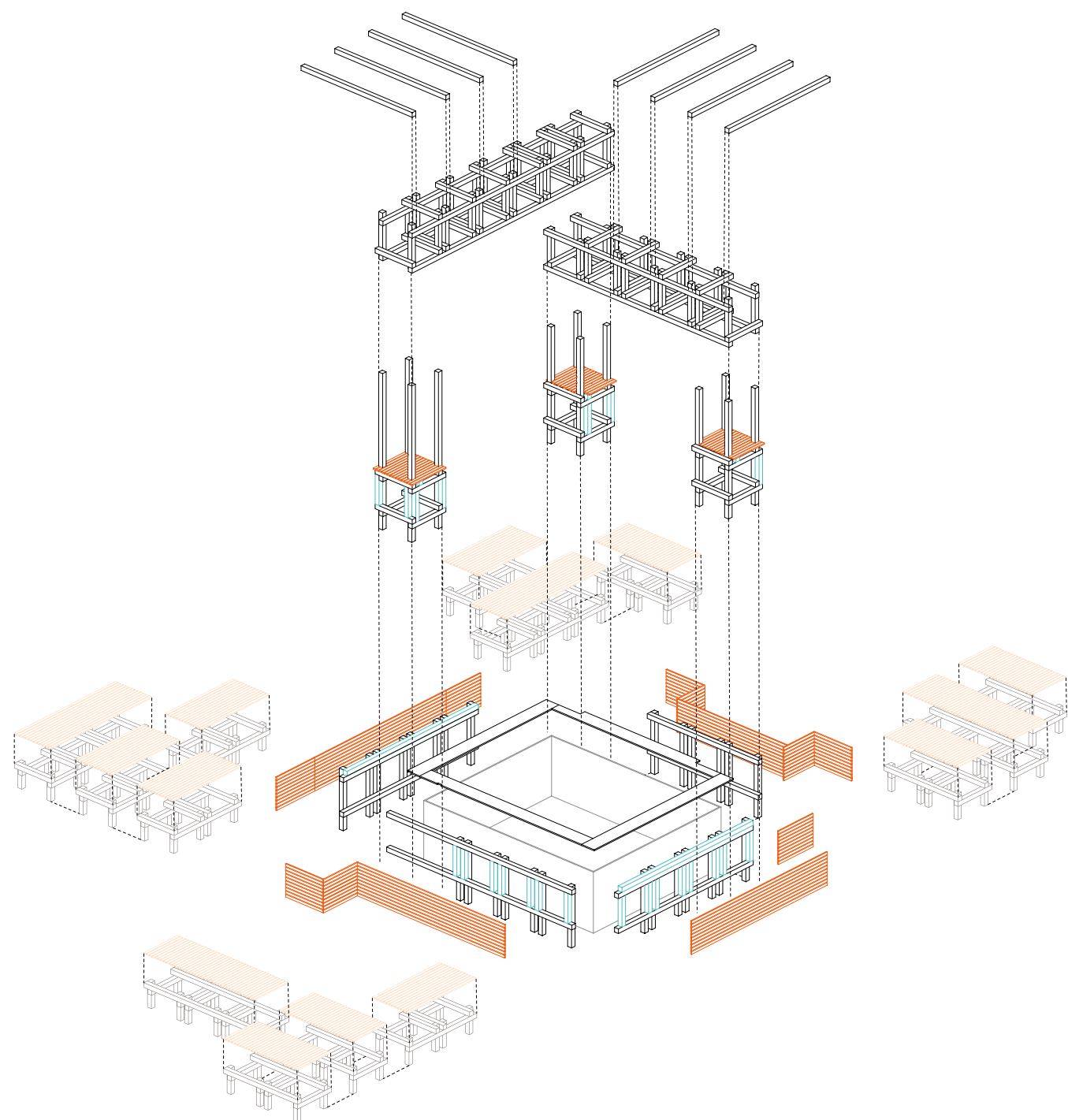
Co-Build

Together with the kids and staff, we built a range of habitat elements: sand lens, dead hedge, stone pile, clay nesting box, rainwater chain and temporary water area, wildlife friendly plantings.

Nesting Stool (“Nisthocker”)

Supported by the NEBourhoods Transition Hub team, we engaged with the owner of the local shopping mall, a local stakeholder who owns a centrally located semi-public space and was eager to cooperate with us in implementing biodiversity measures. In a semester project, TU Vienna students designed co-habitation concepts for a possible AAD-Demonstrator in Neuperlach. After location and stakeholder were matched, proposals for retrofitting the local shopping mall building and outdoor areas with AAD measures were reviewed. Students then developed an implementation plan, calculated material needs and costs, and created a construction schedule. In collaboration with the Technical Centre Management, the Transition Hub, and Studio Animal-Aided Design, the final “Nisthocker” (Nesting Stool) was finally designed and built with the students. The Nesting Stool was quickly embraced and became a popular gathering spot in the neighbourhood, demonstrating how measures for wildlife can also enhance the quality of life for people.





4 The AAD-Toolbox

To make the results of the process easily transferable, a detailed toolbox was developed. It contains a catalogue of measures to address the critical needs of the selected target species in new developments or refurbishments of buildings and open (green) spaces. Synergies with climate-sensitive urban design and energy retrofitting of buildings are emphasized, and practical solutions for promoting urban biodiversity are presented. The toolbox is designed to enable participation and is suitable for use by housing associations and real estate developers. It can also be utilised in schools or at the local community level. Most importantly, it helps people reconnect with nature and contributes to a bottom-up expansion of green infrastructure and wildlife in urban areas.

Although the toolbox was initially designed for use in Neuperlach, it provides an easily adaptable framework that can be customised for individual projects after the analysis phase and the selection of target species.

An overview shows the 14 target species and their critical habitat elements in the main categories: food, shelter, reproduction and hygiene. This is used in an initial analysis, to determine which of the habitat elements are already present on site or can be easily implemented. More detailed information in the respective target species flyers forms the basis for choosing an animal and planning concrete measures on site. As a next step, an aerial photograph or plan of the project site is used for mapping out the habitat potential. The measure sheets in the AAD-Toolbox provide information on the size, installation and maintenance of each habitat element. The development of new, site-specific designs is encouraged. Implementation and future maintenance

should be planned in detail. In our AAD-Database, all habitat elements (vegetative and structural) with information related to the target species and to possible combinations with other elements can be found.

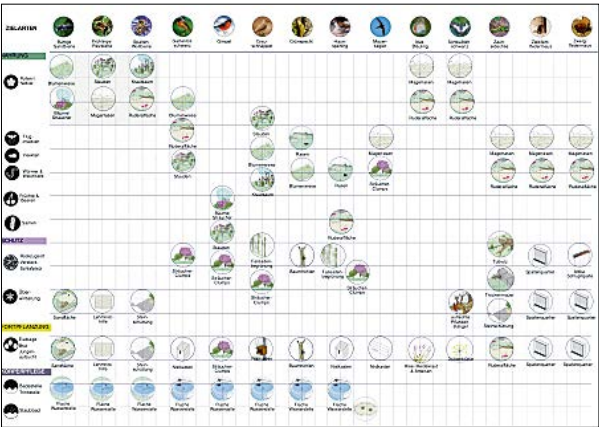
When planning AAD measures, it is essential to take the long-term maintenance effort into account. Many promising initiatives fail to reach their full potential due to limited financial or human resources for ongoing upkeep. To truly transform our cities and neighbourhoods, we need strong political leadership in biodiversity-inclusive practices and a clear commitment to securing the necessary resources.

Embedding Animal-Aided Design into co-creative processes as part of the NEBourhoods project elicited a positive response from people and revealed their eagerness to contribute more to the support of nature and animals in urban areas. Taking the first steps is easier than it seems – let’s make it happen together.

User Guide Toolbox

My Animal-Aided Design

Step 1 Observe



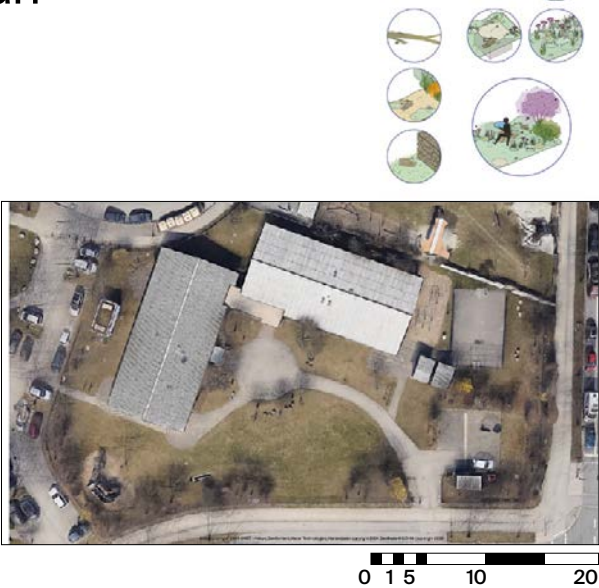
Have a look at the **Overview of Measures** and their respective functions for the target species. Find out for which of the animals your project location is most suitable.

Step 2 Check



Chose a **Target Species Flyer** and find out more about the animal. Check your project site: What does it already offer for the target species and what is needed for the species to be attracted to move and live here?

Step 3 Plan



How can you create a pleasant place for yourself as well as for different animal species? Print out an aerial picture or a plan of the project site and start mapping what's already there. Use the **Stickers** to map and plan where you want to build additional **Habitat Elements** that are needed for the target species.

Step 4 Design

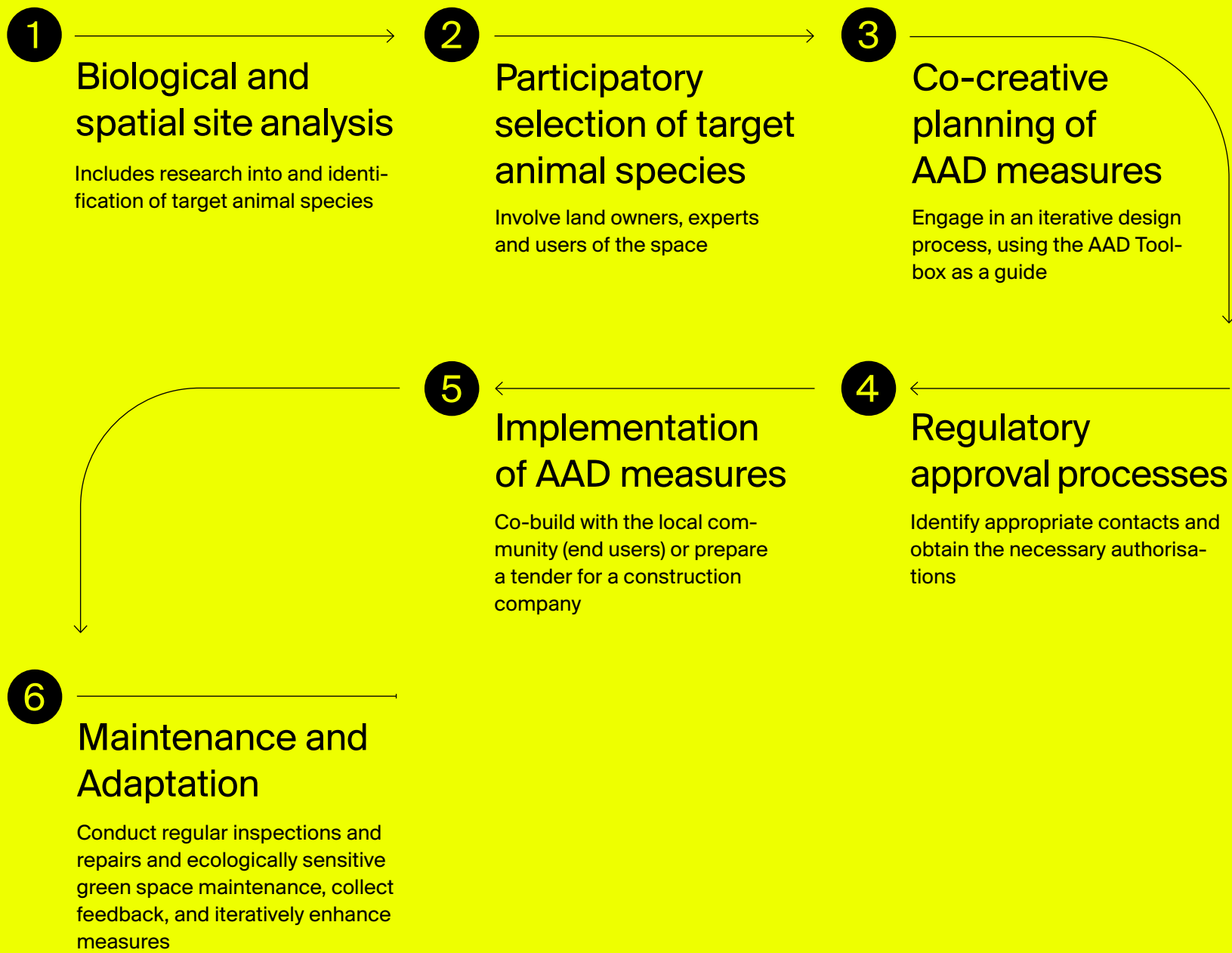


Look at the **Habitat Elements** for different target species in more detail. Choose one and design your site-specific version of it, using the measure sheets in the **Toolbox Brochure** for more information. Look for building instructions, make a list of the materials you need and get some tools. Then you can start to build!

Pointers to Jump-Start Replication

The Animal-Aided Design approach is dedicated to the themes of biodiversity and urban co-habitation with wild animals. Following several co-creative workshops held with children’s and youth centres, a garden was enhanced with wildlife-friendly elements. In addition, a demonstrator for Animal-Aided Design (AAD) was created in the forecourt of the largest local shopping centre, providing a place for both animals and people to linger, observe and listen: the “Nesting Stool”. This is a modular timber structure that features seating, shade, and sunbathing decks, as well as flowering and edible trees and perennial shrubs and nesting aids for birds and wild bees. It is a sculpture that combines habitats for people, animals and plants. The prototype can be dismantled and relocated as needed.

Key Project Steps



Key Stakeholders



Evaluation of Replicability

Potential

Easy yet Site-Specific Replication

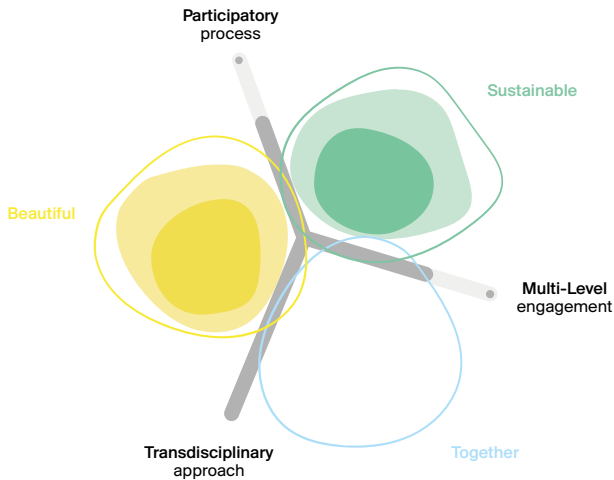
Synergies exist with the energetic regeneration of the housing stock, where habitats for animals can be incorporated into the facade makeover. Building instructions for basic habitat elements are widely available through nature conservation groups. The novelty of the AAD approach is to design-in features for all stages of an animal’s life cycle on-site. The use of low-cost, locally available and recycled/recyclable materials, means, measures and activities can be adapted and replicated as needed by community groups.

Challenge

Early Planning for Long-Term Maintenance

Whilst the implementation of biodiversity-enhancing features can be a one-time event, the maintenance of the measures is usually bound by externally set budgets (both in the private and public sectors). If political/entrepreneurial will and commitment are lacking, new routines for green spaces cannot be immediately established. It is also important to involve and train maintenance companies in the ecological transformation of green spaces.

NEB Evaluation Animal-Aided Design



“The application and demonstration of Animal-Aided Design in a socially engaging and co-creative manner is a first step towards an iterative process of making space for wild animals in Neuperlach. The existing open spaces, building facades and roofs have great potential for hands-on ecological transformation. By retrofitting spaces with wildlife-inclusive features such as the “Nesting Stool”, AAD encourages interaction with nature. Our AAD-Toolbox invites both landowners and community initiatives to incorporate non-human needs into their routines and to upscale habitat provision for a variety of target animal species on a local scale in a playful way.”
Christine Jakoby

Related Links

Animal-Aided Design Toolbox (German only)

Animal-Aided Design Database (German only)

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A New Culture of Building Conversion

NEB Action: Redesigning Housing Structures

Key words

housing estates • energy-efficient renovation and refurbishment • various floor plan options • second facade • barrier-free access • community

Partner

Chair of Architectural Design, Rebuilding and Conservation at the Technical University of Munich; Department of Design, Construction and Digitally Supported Realisation at the OTH Regensburg





Large housing estates of the 1960s to 1980s characterise many European cities and embody a common and democratic idea of housing and thus also an important cultural value. In Germany, almost 15% of all multi-storey apartments are located in large housing estates built before 1979. This means that there is an enormous need for renovation today and in the coming years. The NEB Action Redesigning Housing Structures explains and evaluates how winter gardens facades can be used to renovate residential buildings of large housing estates all over Europe systematically following the New European Bauhaus values: socially, technologically, economically and aesthetically.

The analysis of the Neuperlach residential building stock that was carried out as part of the NEBourhoods project has shown that most buildings do not fulfill current housing requirements, particularly as re-

gards the unrenovated building envelope, the lack of barrier-free living spaces and the outdated, inflexible floor plans with their small, oddly configured rooms. The goal was to use timber and glass conservatory

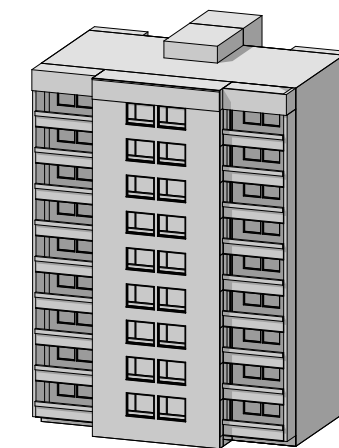
elements to renovate the facades and expand the apartments, thereby improving energy efficiency and providing social benefits at the same time.

Prototyping

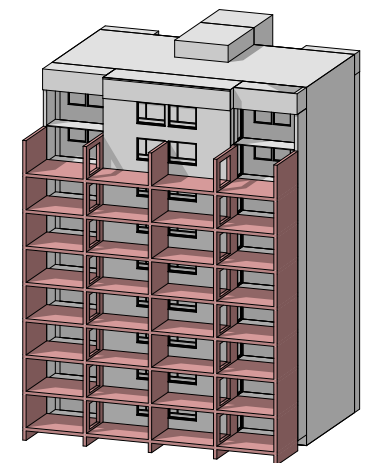
The 1:10 scale demonstrator variants have shown substantial potential for saving energy and improving the quality of living while highlighting areas for future improvement. The different designs on various objects illustrate the wide range of possible solutions and show the neces-

sary planning adaptations of this system to the specific application. A real-scale prototyping of the proposal is another important milestone in making the advantages of the habitable insulation layer in combination with barrier-free extensions visible. In addition to allowing stakehold-

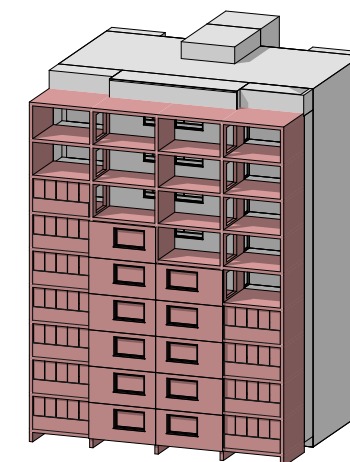
ers to experience the proposed solutions firsthand, this prototype would test effectiveness, functionality, and adaptability, bridging the gap between conceptual design and practical application.



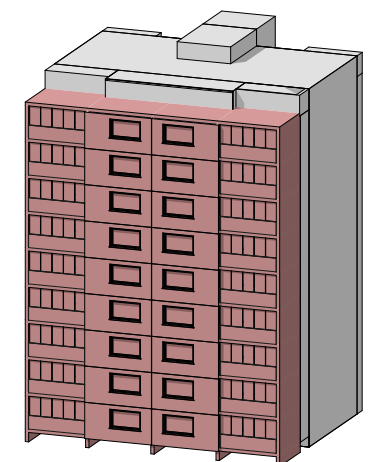
existing structure



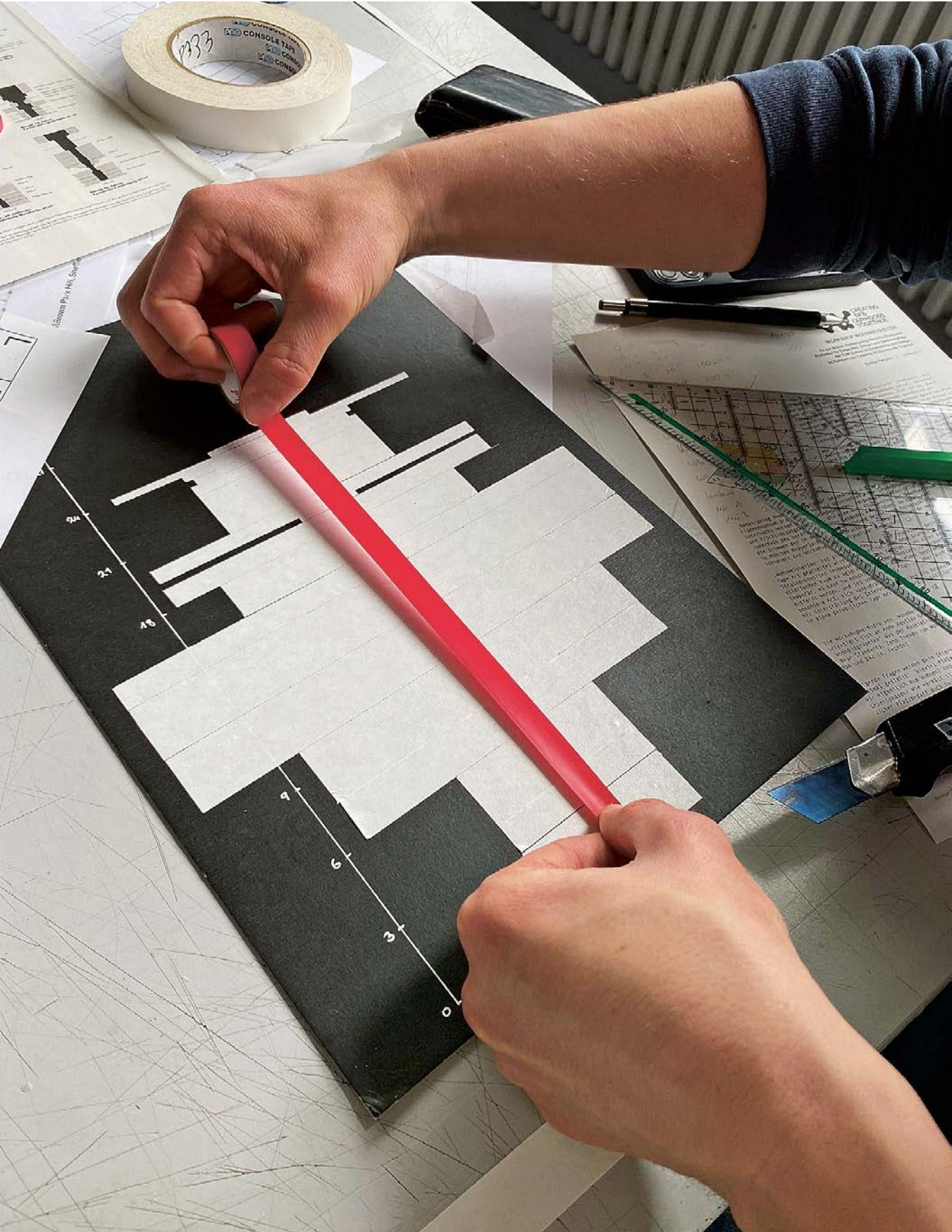
construction of the shelf system



finishing the outer facades



completed state



In a tape art workshop, Neuperlach residents presented their residential biographies in an artistic way.

Engaging the Stakeholders

The existing structures itself

The building has no voice, but its structure essentially defines the rules of what is appropriate and possible. After 60 years, the majority of buildings are under considerable pressure to be renovated and modernized. It is important to understand and consider their structures.

The residents

Affordable housing is the top priority in many cities. Redevelopment should not lead to displacement for financial reasons. In addition to the positive aspects that make Neuperlach a district with a high level of life satisfaction, there are challenges that need to be addressed (lack of spaces for non-consumer interaction, lack of small and barrier-free apartments). Socially responsible refurbishment measures such as flat exchange and subsidy programmes are required to maintain existing rents.

The owners

The owners have an interest in ensuring the long-term continued operation of the buildings. This requires an appropriate return on investment. The necessary investment must be economical. In the case of buildings, for example, this can be achieved through higher utilisation of the land instead of higher rents.

The future residents

What are the long-term forecasts for population development and what needs will arise? We are assuming a society that increasingly lives in fluctuating, diverse communities. Our flexible housing concepts can respond to this better than the chamber-like floor plans of the existing buildings.

Culture

The question of “beauty” raised in the NEB Compass or – to put it more broadly – the cultural localisation of our living environment is a key aspect that influences our well-being. How do we locate ourselves as humans amidst all the architectural legacies and in the face of all the challenges? Art and culture provide answers to this question.

The environment

All development must be sustainable. The burden on those not directly affected must be considered and weighed up against the interests of other stakeholders – because climate change affects everyone. For example, there are many possible links to other NEBourhoods solutions. The inclusion of wildlife in the facade design and the roofs, or the integration of solar panels on the winter gardens – there are many ways to make conversion even more attractive.

The authorities

Many legal questions regarding these analyses and drafts are still open, ranging from building law to historic preservation, fire protection and funding guidelines. A solution that is to be generalisable must free itself from these requirements insofar as it must first identify generally applicable possible solutions. These form the basis for concretisation and thus ultimately determine the true feasibility of implementation.

The key aspect for improvement is strengthening public engagement, particularly the involvement of residents and other stakeholders, through a structured, inclusive, and participatory process, embedded throughout all phases of the project. Effective public engagement is essential for fostering trust, gaining local insights, building community ownership and ensuring that

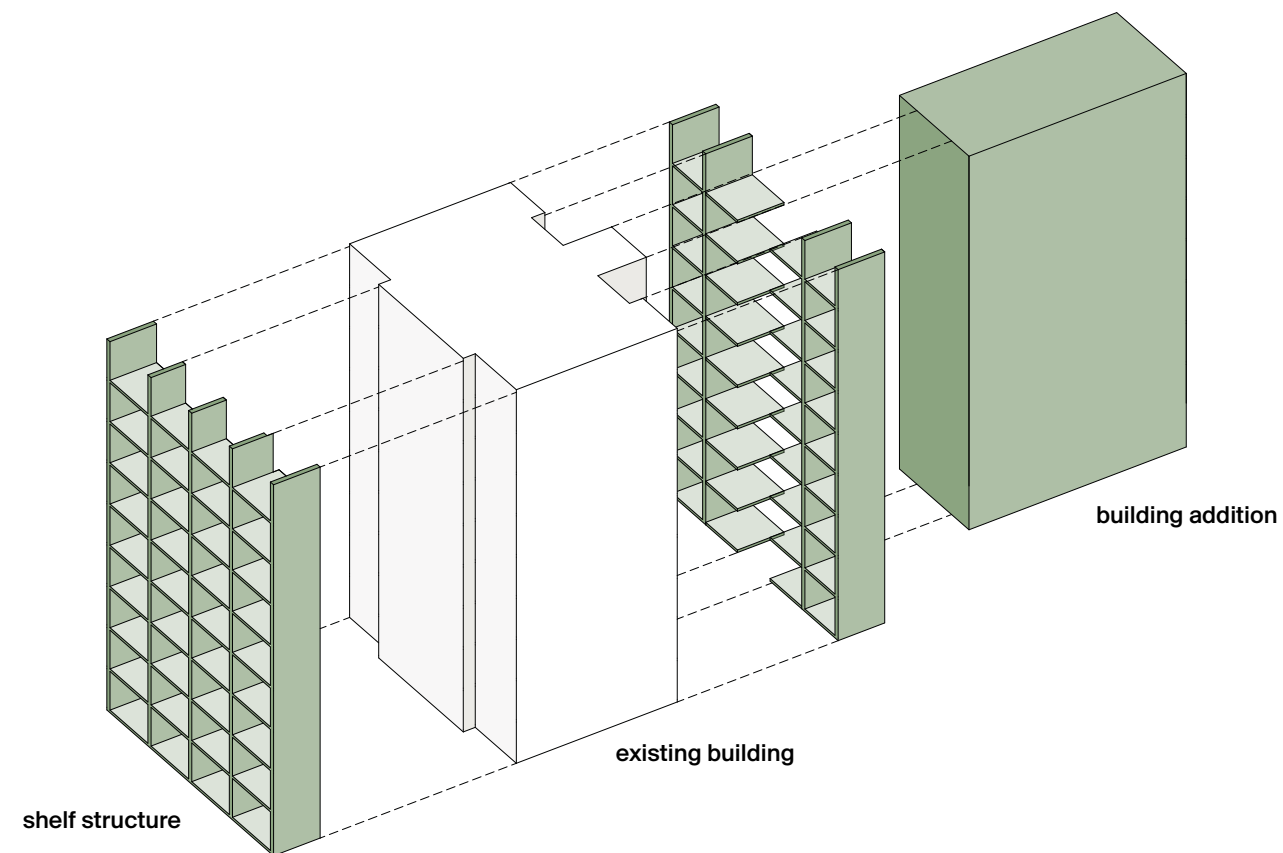
refurbishment processes align with the needs of the community, as well as with the conditions of the existing building structures. The project shows that the existing buildings and the urban context must also be understood as key stakeholders along with future residents. It is important to name all stakeholders and give them a voice.

Planning and Evaluating

Another aspect for improvement is the individual planning adaptation of the systemic solution. Architects play a central role in the ongoing process, as the understanding of built and urban structures as well as cultural contexts is the core competence of architecture. In addition, architecture has always been efficient when it comes to integrating the most diverse interests into a structural solution that is more than the sum of its parts. In this, the integration of a more comprehensive methodological framework plays an important role, specifically by incorporating Life Cycle Assessment (LCA), Life Cycle Costing

(LCC), and Social Life Cycle Assessment (SLCA) into the overarching Redesigning Housing Structures model.

Any implementation is not possible without the willingness of the owners to invest. Therefore, the NEB Action's approach was to explicitly include the economic dependencies, so that the existing building stock could be transformed into inclusive, beautiful and sustainable residential buildings. Every proposal needs to address two important issues to prove the assumptions and serve as a role model:



Important Issue

The balance between the technical standards and the associated financial expenditure must be negotiated. The NEB Action showed that socially diverse environments can be created in the winter garden spaces. Depending on the climate, however, the technical design ranges from a loggia to a classic (unheated) winter garden, to a fully-fledged living space, each with corresponding requirements and thus costs. This study showed that most of the technical aspects can be solved.

Important Issue

The question of how to finance the investment without passing the costs on to the tenants must be clearly addressed. The construction cost of a winter garden refurbishment is in any case higher than the cost for a simple facade insulation. To enable a socially sustainable solution, a redensification model was proposed. This way, further social improvements (e.g. barrier-free apartments close to home) could be implemented in addition to cross-financing. However, granting additional building rights requires extensive negotiations among the parties involved (owners, politicians, the administration, residents) and legal amendments. Densification affects not only the site but the neighbourhood as a whole. The residents fear the loss of green space, increased car traffic and the loss or obstruction of their former view. In order for the concerns and needs of the wider neighbourhood to be taken into account, densification needs to be embedded in integrated development planning.



The detailed models created by students at the Technical University of Munich showed the range of spatial qualities that can be achieved by refurbishing with timber-framed winter gardens.

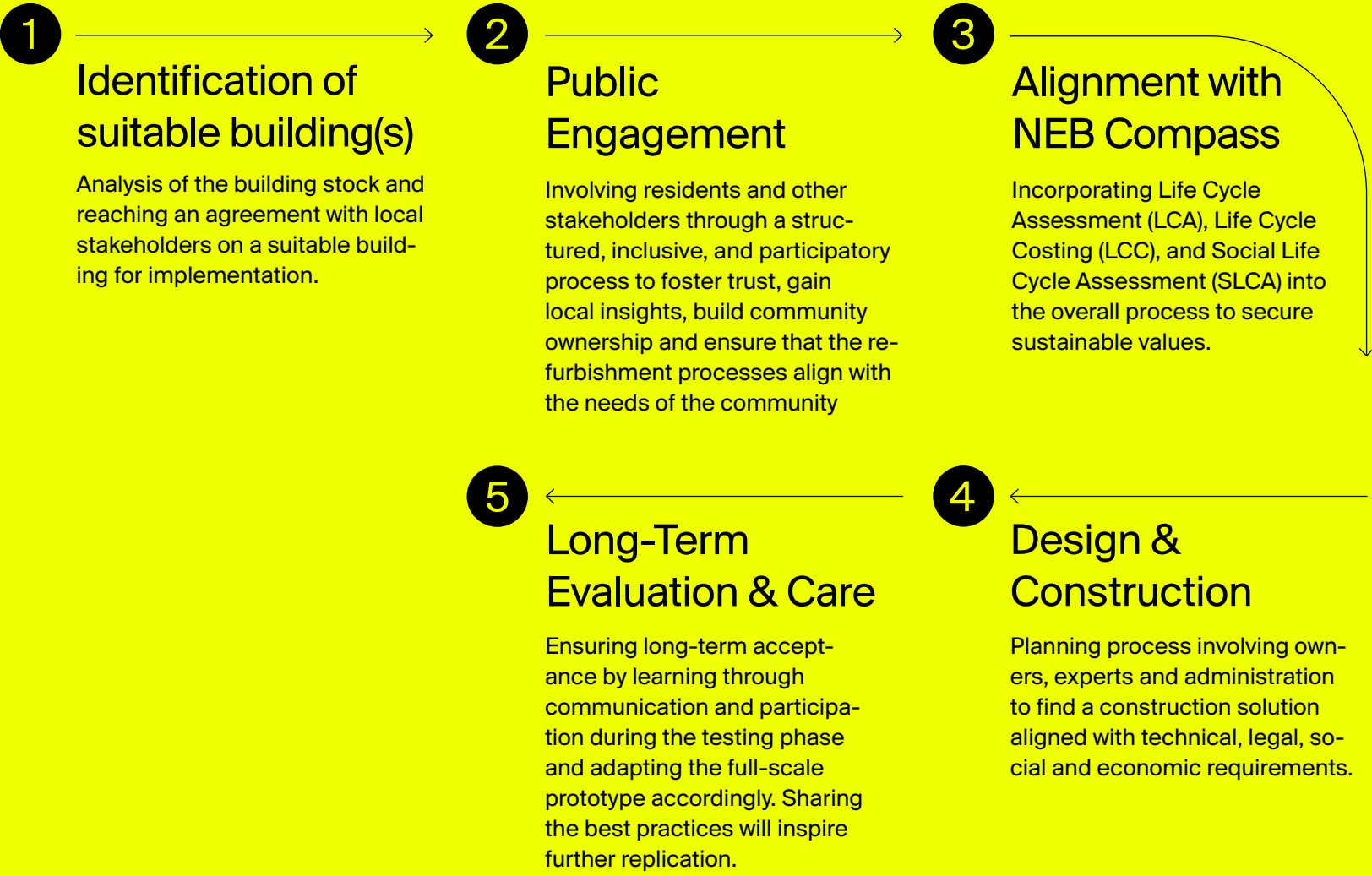
The NEB Action revealed dependencies and challenges and identified possible solutions on how to transform the residential building stock of Neuperlach. At the same time, it has become clear that – aside from the technical solutions – the interests of

all stakeholders must be considered. Architecture creates images that can unite disparate interests and thus enables a shared vision – a shared idea of how our future can succeed. The designs of Redesign Housing Structures are our contributions.

Pointers to Jump-Start Replication

The NEB Action Redesigning Housing Structures shows how the structural deficiencies of existing residential buildings in Neuperlach can be improved socially, technologically, economically and aesthetically. Most buildings do not fulfill current housing requirements, because of the unrenovated building envelope, a lack of barrier-free living spaces and inflexible floor plans with outdated room sizes and configurations. The intention is to provide energy upgrades and social benefits simultaneously by renovating facades and expanding existing residential spaces using winter garden elements made from timber and glass. The NEB Action explains how winter garden facades can be used to renovate residential buildings of large housing estates all over Europe in accordance with the New European Bauhaus values.

Key Project Steps



Key Stakeholders

The building has no “voice”, but its structure essentially defines the rules of what is appropriate and possible. It is important to understand and consider the structure.

Residents and future residents are the key actors in the project, as the solution needs to ensure affordability and usability

Building owners (public or private) enable the long-term continued operation of the buildings and need to be involved in securing the NEB values throughout the whole process

Authorities, the administration and policy-makers play a key role for successful implementation by remaining open to prototyping and embedding projects in integrated, participatory development planning.

Architects, artists and creative professionals contribute cultural perspectives and aesthetic ideas and embed the needs of people in innovative refurbishment solutions and in society.

Evaluation of Replicability

Potential

Extra-Disciplinary Collaboration

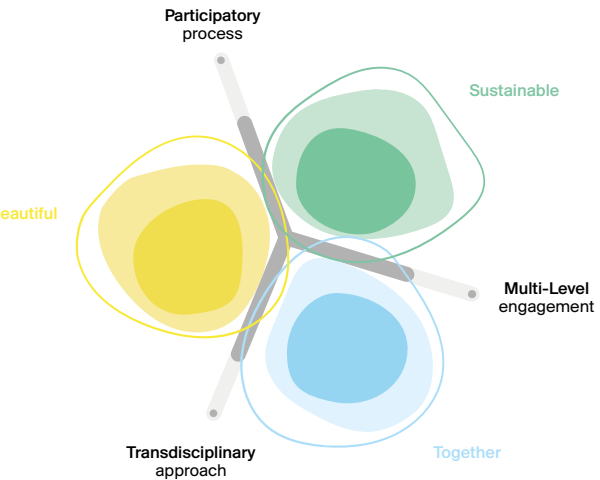
The concept is highly adaptable because it uses standard construction methods. The winter garden structures can be adapted to different building measurements and contexts as shown in our documentation. The urban environment in large housing estates would be strengthened by refurbishment and redensification.

Challenge

Political Commitment and Social Acceptance

Political commitment is necessary, because existing legal frameworks might not support innovative refurbishment and prototype solutions. Partly adapted regulations are needed. The NEB asks for solutions that combine sustainability, inclusion and accessibility. Thus, collaboration and co-creation with all parts of society are key for future-ready neighbourhoods.

NEB Evaluation Redesigning Housing Structures



“The NEB approach helped us throughout the whole process of studying Neuperlach’s building stock and figuring out how to use winter garden facades as new refurbishment options. We integrated the NEB values into the structure of our project, always checking whether our findings were beautiful, sustainable and inclusive.”
Stefan Gruhne

Related Links

Redesigning Housing: Guidelines for a Socially Responsible Renovation

Redesigning Housing: A Cinematic Insight into Spatial Possibilities

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Living Together as Part of Nature

NEB Action: ECOLOPES

Key words

biodiversity • habitat for animals and humans • sustainable building envelopes • digital fabrication

Partner

Chair for Terrestrial Ecology at the Technical University of Munich, Professorship of Digital Fabrication at the Technical University of Munich

Urbanisation and Threats to Biodiversity

Since the early 2010s, most people on this planet have been living in cities, and the trend is rising worldwide. To accommodate these growing urban populations, the footprints of cities have been expanding, often encroaching on surrounding natural ecosystems and threatening their biodiversity.

Decline and Loss of Nature Experiences in Cities

One of the consequences of the increasing urban population is that people are becoming less likely to encounter nature in its wild state in their daily lives. What’s more, since the Enlightenment cities, farmland, and wilderness have been firmly segregated, and people in cities are unlikely to come into contact with wilderness. The ongoing strong separation between people and nature is referred to as the “extinction of experience”. There are fewer and fewer opportunities for people to interact with the natural environment and experience themselves as part of it: an increasing number of humans live in urban surroundings, amid predominantly artificial materials, where their lives are segregated from natural systems and processes.



An example of a beautiful, yet ecologically impoverished urban neighbourhood.

The Benefits of Nature for People

The loss of nature experiences does not only negatively impact our ecosystems. As humans, we are strengthened physically and psychologically by a diverse and healthy environment and our contact with nature. Below are some of the key benefits of natural urban spaces for humans.

Benefits of Nature for People

Benefits to the Physical Environment

- Vegetation helps with the regulation of local microclimates. Simply said, it makes cities more pleasant to be in.
- Vegetation helps cool surfaces through shading and evapotranspiration.
- Vegetation between buildings and roads reduces the amount of road noise that reaches the buildings.
- Nature can have positive aesthetic effects on urban environments.

Physical Health Benefits

- Generally better health, such as reduced stress, reduced blood pressure, a lower heart rate, and fewer headaches
- Increased physical activity and reduced prevalence of obesity
- Faster healing and recovery from illness or surgery
- Reduced fatigue and improved cognitive functioning

Mental Health Benefits

- Better psychological well-being and quality of life
- Decreases in negative mental states such as depression, dejection, anger, frustration and stress
- Reduced anxiety
- Increased happiness, creativity, comfort, and vitality

Social and Recreational Benefits

- Access to nature facilitates human interactions and enhances social cohesion.
- Natural spaces are great for a variety of recreational activities, including walking, swimming, birdwatching and picnicking.

Turning the Tide: How People in Cities Can Learn to Live Together as Part of Nature

To overcome people’s alienation from nature, it is critically important to address the root cause: City dwellers need to be empowered to re-connect with nature. The easiest way to achieve this is to create a greater abundance of natural environments in cities.

The EU project ECOLOPES aspires to close the gap between urban inhabitants and nature. Aside from classical green infrastructure such as parks, there is great potential for the use of the horizontal and vertical surfaces of buildings to provide space for nature. Many animals in cities use elements of buildings, such as ventilation holes or spaces under the eaves, for roosting or breeding. Low and

high roofs can provide habitats for plants and animals, provided that the structure of the building can accommodate them.

ECOLOPES proposes that, instead of just minimising the negative impacts of urbanisation on ecosystems, urbanisation needs to be planned and designed in such a way that nature, with humans as part of it, can co-evolve with the city. For

this, we require an architectural approach that focuses equally on humans, plants, animals and microbes. To further this goal, ECOLOPES integrates ecological models into computer-aided design frameworks to optimize for biodiversity and human needs on building envelopes, thereby making ecological knowledge more readily available to the architectural professions.

Applying the methods of the broader EU project ECOLOPES, the NEB Action has been working on two prototype interventions in Neuperlach. The first one illustrates the potential of roofs as biodiverse green spaces through the provision of a varied habitat where plants with different requirements can thrive. The second one, a collaborative project with the TUM chair of Digital Fabrication, showcases the potential of 3D-printed building facades that are optimised to provide habitats for cavity-nesting birds, while improving building insulation with self-shading facade tiles.

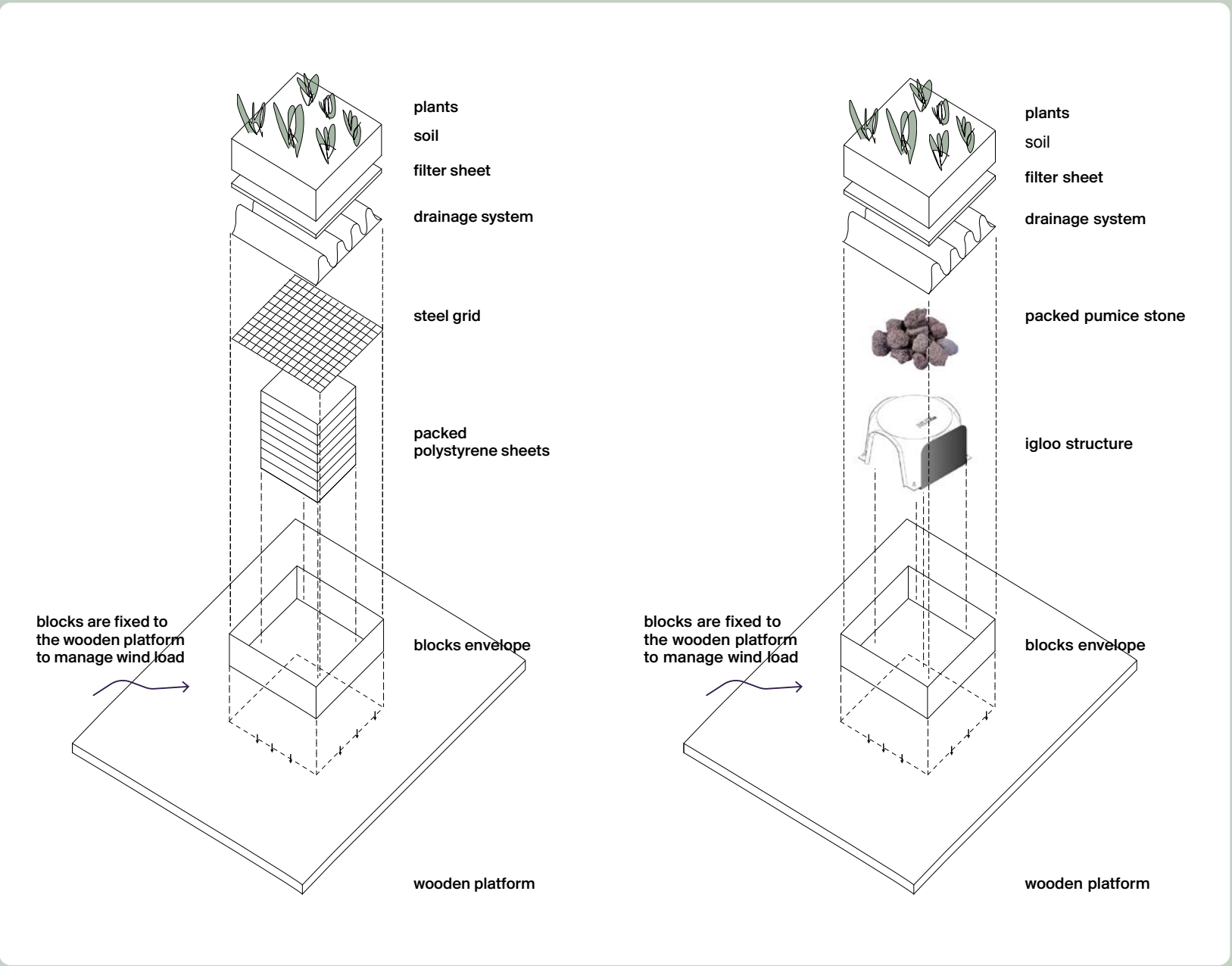
NEB-Demonstrator

The ECOLOPES “Building Blocks” are sets of planters that are arranged so that they create different microclimates for plants within them, thereby providing the spaces for more varied species to thrive

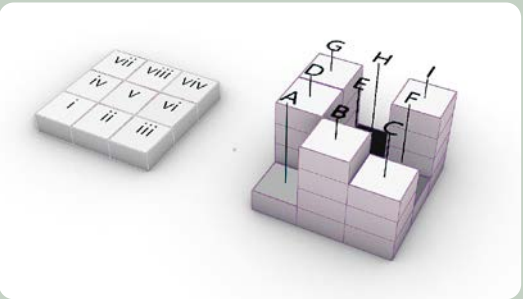
ECOLOPES Building Blocks

instead of allowing a few plant species to dominate. Planters of different heights and soil depths create various degrees of shading and water retention by the soil. Not only does this encourage very drought-

resistant plants to grow on roofs, but it also promotes the growth of plants that require more shade and humidity.



Early picture of experimental ECOLOPES Plant Building Block, a few weeks after plants were sown.



The planters of the ECOLOPES Building Block create different shading and water retention conditions by different heights and soil depth.

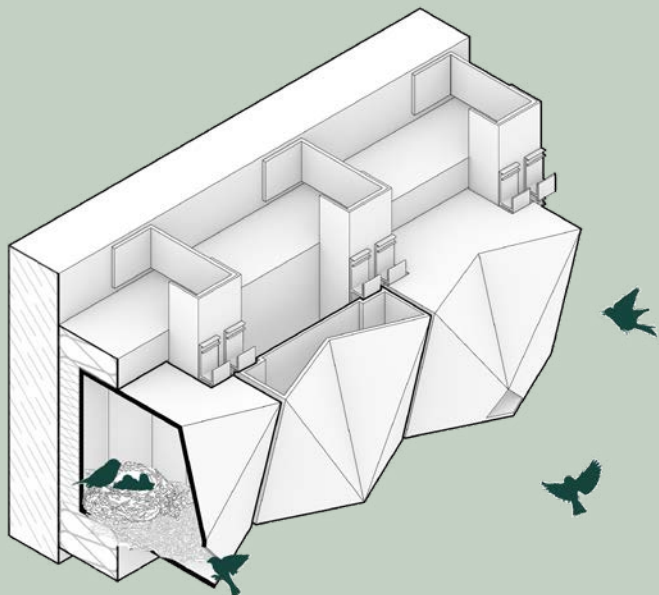
NEB-Demonstrator

3D-Printed Building Facade

The 3D-printed building facade elements were designed to create nesting spaces for building-inhabiting birds. Historically, many birds, including house sparrows and black redstarts, which are the main target species in this case, have used human-made structures as roosts and nesting sites. This use has been declin-

ing, partly because of suitable nesting sites have been lost due to architectural changes in the latter half of the last century, which have closed off the spaces that would have been occupied by birds. By re-incorporating spaces for them to nest into modern facades, we aim to promote the presence of these birds in the urban

fabric. The self-shading aspect of the facade is optimised; this keeps the temperatures of the elements that incorporate the cavities for birds at a comfortable level for them and generally lowers the temperature of the facade itself.



Rendering of the the post-construction appearance of the facade elements on the Feierwerk Südpolstation



Embracing Green Infrastructure and Urban Biodiversity

While both interventions had their own implementation challenges, there are some overlapping findings: in many cities, regulatory and legislative frameworks are a key challenge to novel types of (green) infrastructure in public spaces. Many novel green initiatives are exactly that – novel – and do not yet have the support of certifications or prior examples necessary to build them. This can lead to a regulatory catch-22: in order for the novel green infrastructure to be built, especially in public spaces, it needs to be certified under building industry regulations; however, to be certified, it must provide evidence for its efficacy and safety. In order to allow for the construction of the facade structure in spite of this problem, we ran tests and worked on certification during the planning process. These tests included not only the usual ones studying the effect on the structural integrity of buildings, but also additional material tests, which increase the cost of implementation. Unless local and higher-level governments put standardised regulations and legis-

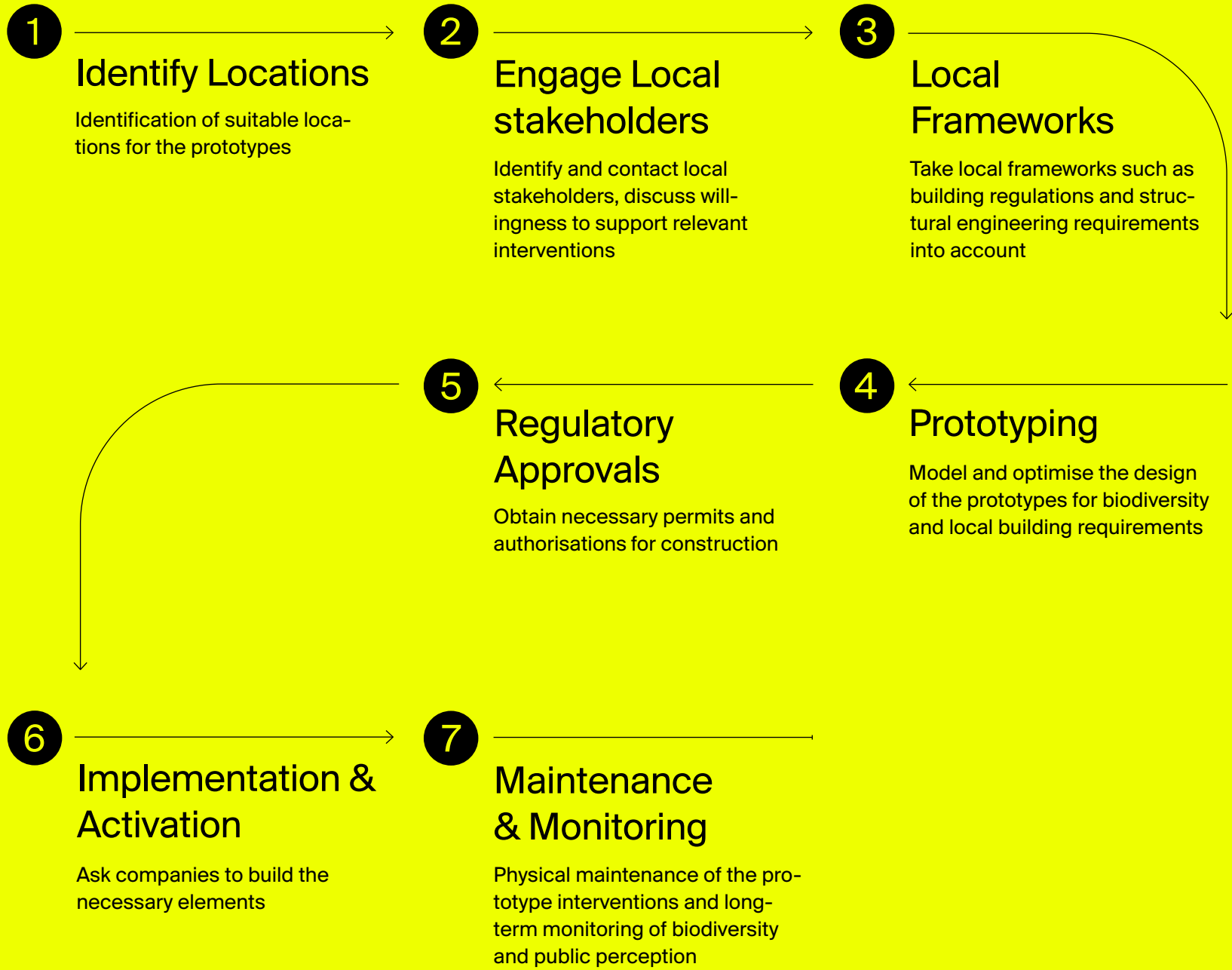
lation in place that clearly state the requirements for novel urban green infrastructure in public spaces, implementing it will remain an expensive and time-consuming endeavour, limiting its reach and efficacy. A lesser, yet still notable challenge when designing for the coexistence of humans and animals is the willingness of people to live in close proximity with nature. Urban inhabitants have clear preferences for which animals they are more or less willing to coexist with in their cities. They are rather unwilling to share their private spaces, such as their houses or gardens, with most animals, but would love to have animals in their neighbourhoods. Animals like hedgehogs or bumblebees are strongly preferred over martens and city pigeons, for example. Planning for more natural environments with greater biodiversity in cities must be done in concert with citizens and property owners. This is the only way to reconcile the needs of humans with those of a natural environment and

avoid the harshest conflicts. Co-creation can be a great solution in this situation, since urban inhabitants are then part of the design of the natural environment around them, shaping it to their needs and fostering stronger ownership and stewardship of what has been created. Ultimately, with the right legislative frameworks and the active involvement of city residents in co-creating these spaces, the barriers to embracing nature in urban environments can be significantly reduced. This collaboration not only enhances the effectiveness and reach of green infrastructure but also creates a sense of ownership and caring within the community. As cities continue to grow, fostering an environment where humans coexist harmoniously with nature will be crucial for both the health of our ecosystems and the well-being of urban populations.

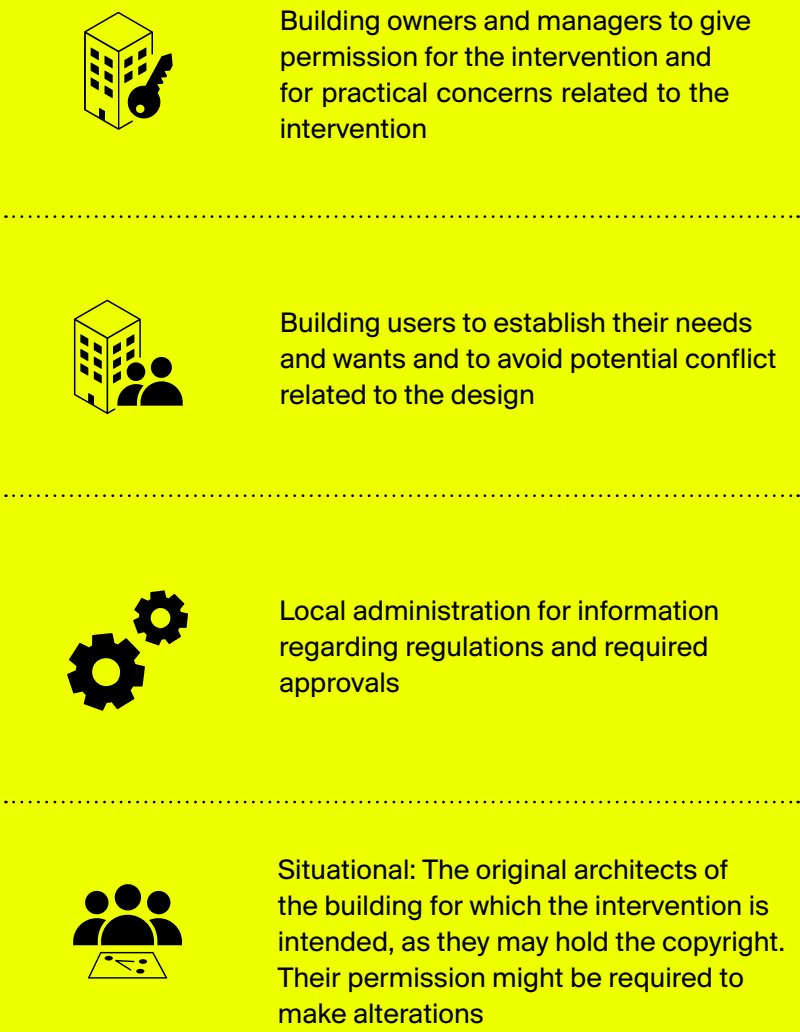
Pointers to Jump-Start Replication

Applying the methods of the EU’s ECOLOPES project, the NEB Action developed two prototypes in Neuperlach that meet the needs of human residents as well as local wildlife – both, plants and animals. The first demonstrates the potential of roofs as biodiverse green spaces, where plants with varying needs can thrive. The second, created in collaboration with the TUM Chair of Digital Fabrication, showcases 3D-printed building facades optimised to provide habitats for cavity-nesting birds while improving building insulation. Further work is needed to make the cohabitation elements ready for the mainstream market. Below, we recommend steps toward achieving marketability and facilitating project implementation.

Key Project Steps



Key Stakeholders



Evaluation of Replicability

Potential

Critical Need for Novel Solutions

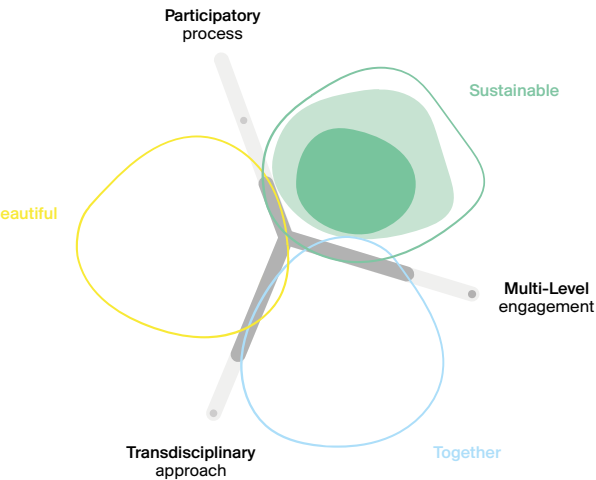
Europe needs novel solutions for the utilisation of limited urban space for greening and biodiversity that align with the European Green Deal. Urban green spaces enhance both physical and mental health and provide habitats for plants and animals. Computationally optimised solutions, incorporating the expertise of architects, planners, ecologists and social scientists, can maximise the use of space while adapting to local needs.

Challenge

Absence of Regulatory Framework

The ECOLOPES prototypes were novel structures that had not yet been implemented elsewhere, which caused initial difficulties in obtaining permits and required additional materials testing. This led to uncertainty for local stakeholders, a prolonged permit process, and extra liability insurance for the second facade. Future projects should consult local authorities and stakeholders early in the process to identify any supplemental requirements and avoid conflicts later.

NEB Evaluation ECOLOPES



“In Neuperlach, ECOLOPES focused on providing plants and animals with more and better habitats on buildings and locals with better access to nature in their city. In discussions with the local users and discussions with architects and ecologists, we considered locations and requirements for designs to balance human needs with those of plants and animals. One of the concepts, the “plant building block”, was also built in Genoa (IT) and Haifa (IL), so we would be able to compare and validate the biodiversity benefits of the optimised structure to those of standard green roofs. Collaboration and understanding between architects and ecologists is necessary to successfully use buildings to promote biodiversity.”
Fabio Sweet

Related Links

ECOLOPES-NEBourhoods Prototypes for Cohabitation

ECOLOPES EU Project

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... get out
there and
conquer
POPS!*

NEB Action: Private Spaces for Public Use

Key words

public accessibility • monofunctional office buildings • exterior spaces • activation of spaces • teaching approach • interventions in urban space

Partner

Chair of Urban Design at the Technical University of Munich

A call for better private public spaces and local student activation

The NEB Action Private Spaces for Public Use explores the transformation of large, mono-functional office buildings and their surrounding outdoor spaces into mixed-use complexes, particularly focusing on privately owned public spaces (POPS) to bring about positive changes in urban neighbourhoods.

*Privately Owned Public Spaces



- What are the spatial, social, functional potentials of POPS*?
- How can these spaces be re-imagined as productive, multi-functional, and publicly accessible urban elements?
- How can they promote ecological sustainability, enable social interaction, and enhance the quality of life for residents and employees?
- How can we “awaken” them through student engagement?

Every European city is different, every POPS* is different. We plead for those with local knowledge and for locally connected groups to get out into the field and ...



1

It all has to start in an almost windowless office compound. You've got to feel that transformation potential! Take in the vibe of slightly worn-out suspended ceilings and check out some urban theory first. You have to know your Jane Jacobs before you get out there!



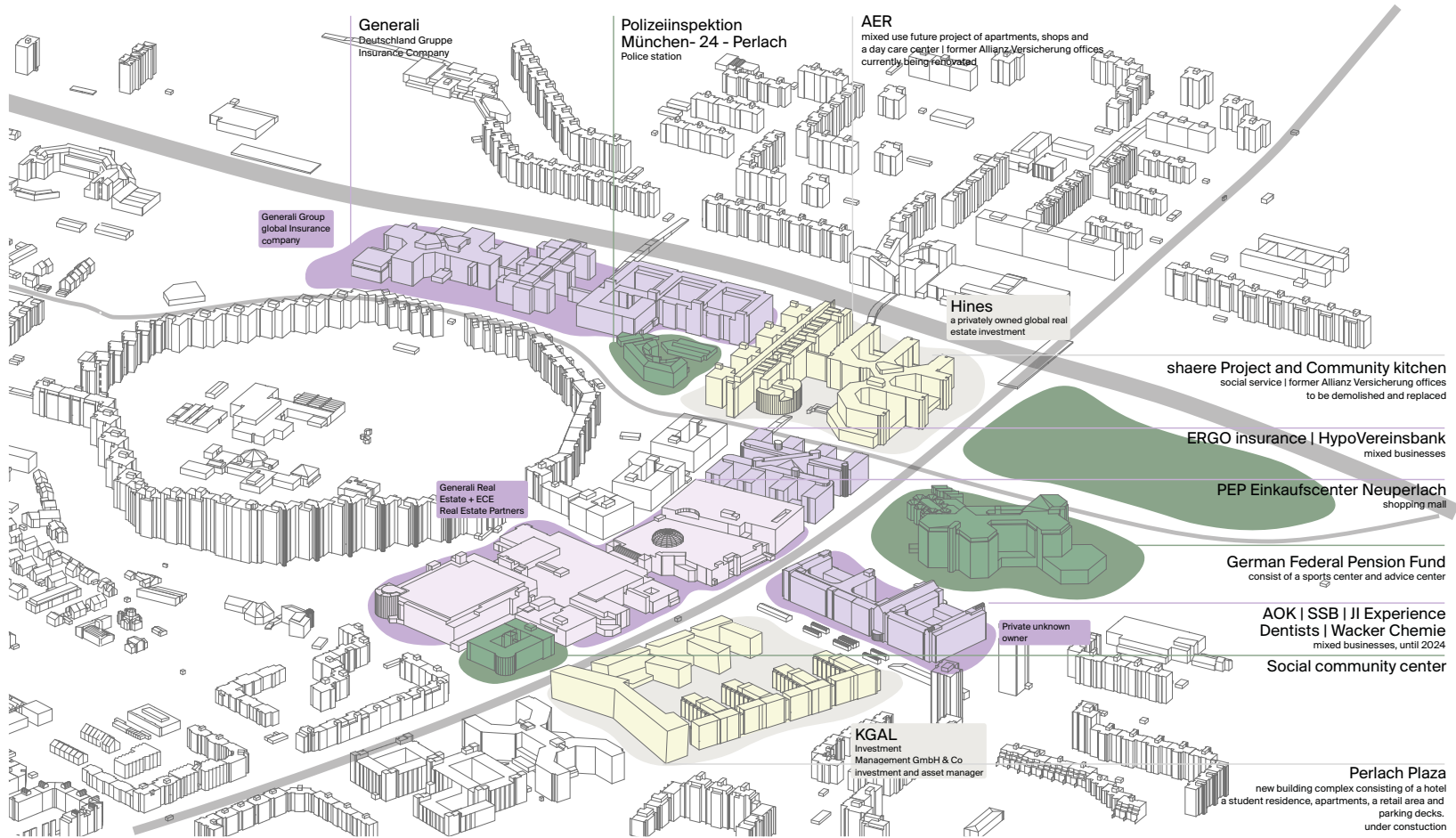
2

Next, make an initial foray into public space. Start with an easy, accessible place. Take out a megaphone and make your thoughts known! Passers-by may notice, but the most important thing is that you get to know the neighbourhood. Do some serious mapping to find out things like the ratio of green spaces, the location of traffic lines and so on – you will discover your first POPS right there.



3

If you feel you like you've been talking and talking and still don't know anything, get moving. Form a crowd and make the spaces you want to know more about vibrate. Change their mode. Share your impressions constantly. Keep in mind: you are guests in other people's extended living room! Show yourselves to be friendly "intruders". Leave your smartphone with the group leader and trust your senses for once.



4

Take stock again. But this time, make it more qualitative, more subjective. You will now need to know where you want to intervene. You will find large office complexes with surrounding spaces that are just – empty! There is design, but there is no life. Think about conquering those for the people of the quarter.



5

Conduct initial, super-obvious tests. Often, the most obvious solutions, the ready-mades, are already enough. We don't need to overdesign, we need to make our work approachable. Use furniture, use containers that people are familiar with. Place them in the right spot, and wait for things to happen.

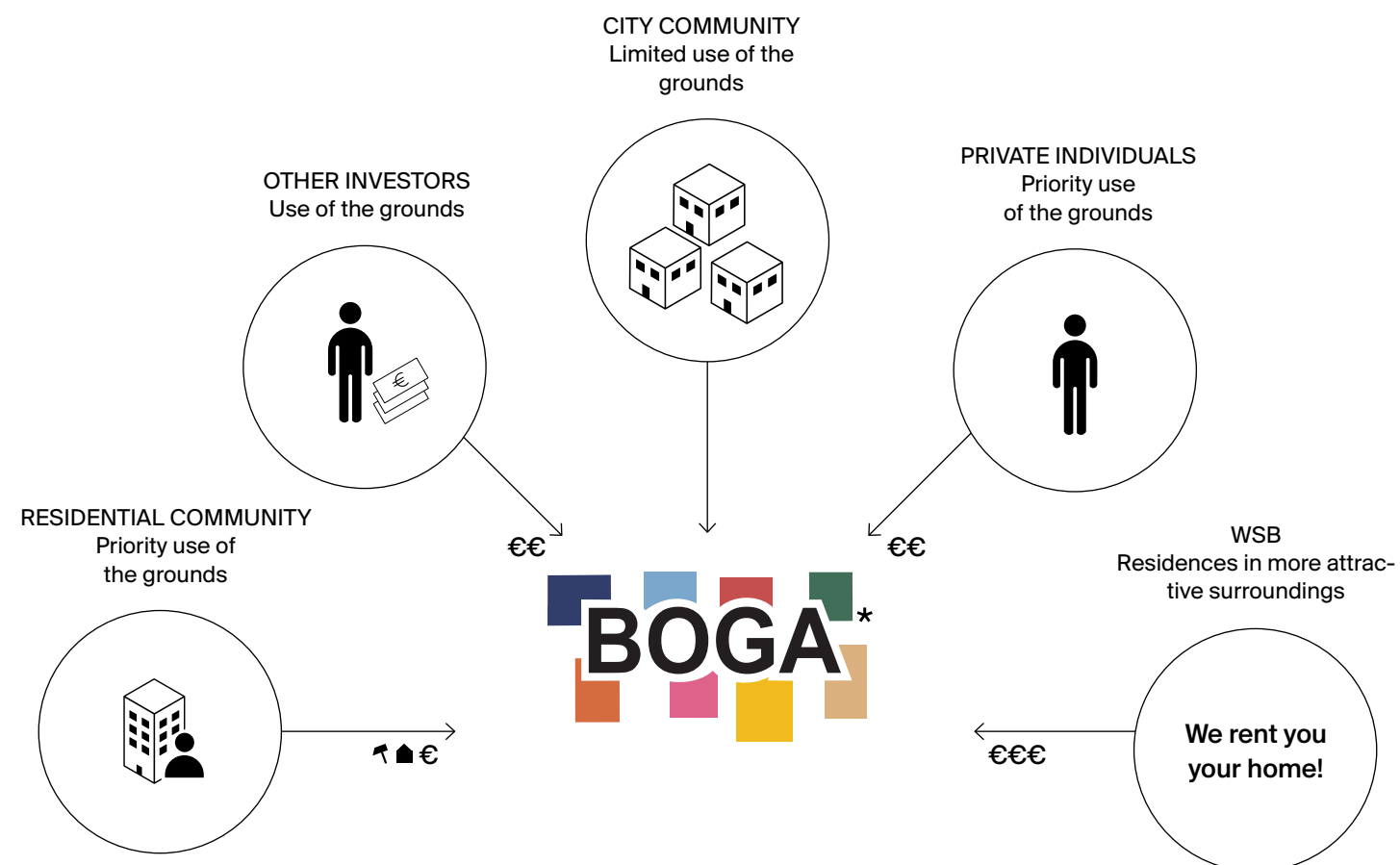
6

When you talk to people, show them visions of what could be. POPS are not just around office buildings, they are everywhere. So much space in peri- and suburban settings is underused. Listen closely and talk about how multi-use, ecologically rich POPS could make our cities more liveable, with no loss to anyone. Take their feedback seriously and work it into your proposal.



7

“Public” doesn’t mean that it’s a free-for-all. Make a case for prioritisation. Those who live next to a POPS with an optimised community offering BOGA* should have the most privileged access. People who profit should be asked to co-finance what is happening in the POPS, as these areas need continuous investment. Strategies can be worked out, but they need to be feasible!



* BOGA: Blocks mit optimiertem Gemeinschaftsangebot (POPS with an optimised community offering)

8

Then, using your ideas, test prototypes. These can be ready-made or tailor-made, but they need to be simple and approachable. Children are great experimenters, and what is better in a public space than water? Get them to play with it and let them come up with more ideas.



9

Give water to strangers in the heat of summer. You will be able to talk to them about POPS, about comfort, about health, maybe even about the climate breakdown and what it means for our cities. It doesn't have to be water in every city – it can be something entirely different over in the next town! But it needs to be something simple, something connected to everyday life.



10

Again, improvise with what you find. Repeat.



The results can vary a lot, depending on whom you want to address. You might try a booklet for the City and for private owners that reminds them of the great wells they used to have, or a map where water can be made accessible. Build pressure! POPS can profit greatly from water as a starter.

In comparison to other Munich districts, Neuperlach once had an especially high-quality abundance of inner-city water features, fountains and water playgrounds. Today, only few wells are still active (shown in light blue on the map below, permanently deactivated water features/fountains shown in red; refill stations are shown in dark blue).



Contact us along the way! We hope we can join you in creating future POPS together.*

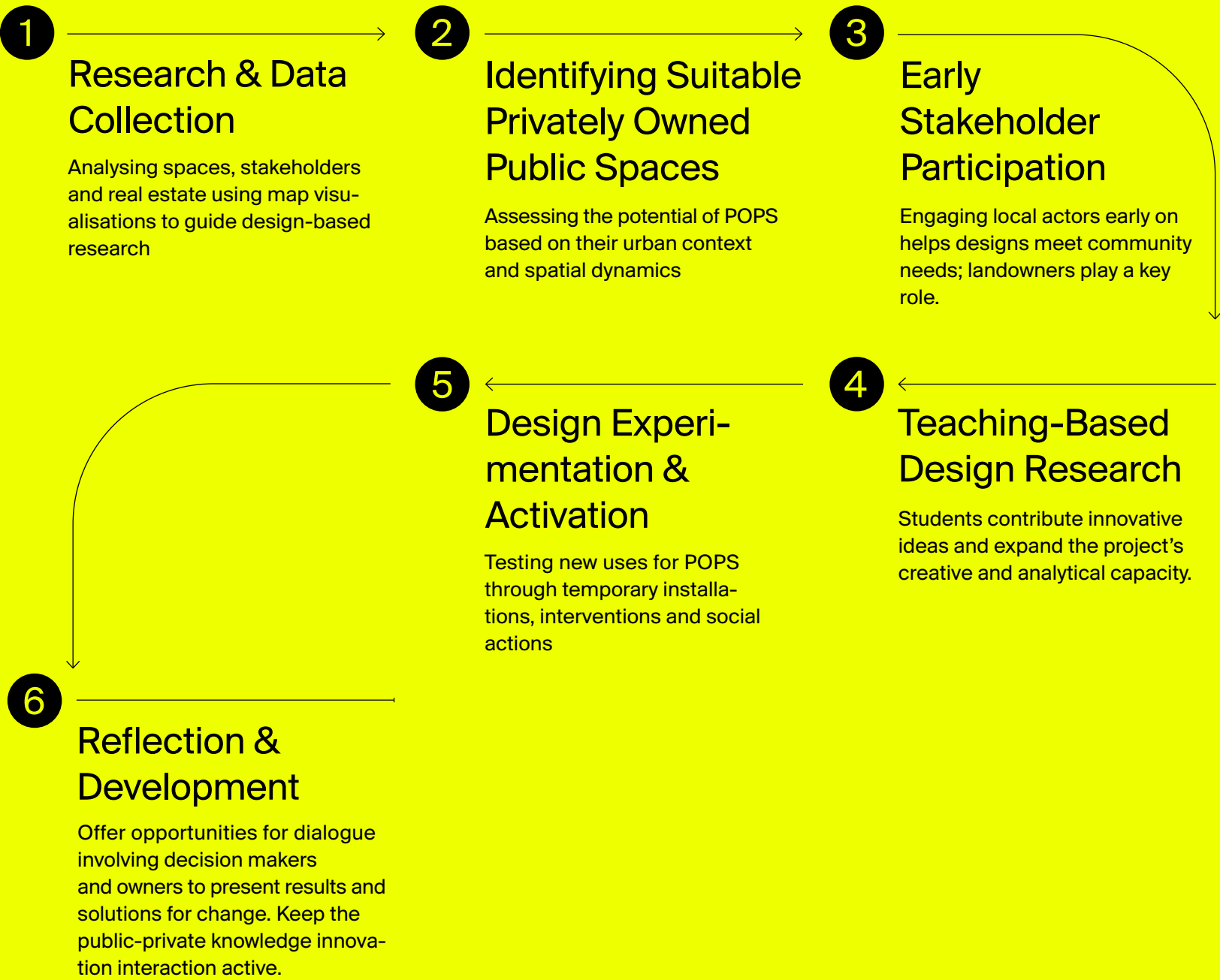
*Every university, every study programme, every city is different. We are convinced that replication cannot happen 1:1, so we chose to tell this story, not as a guide, but as an inspiration. But there are some simple thoughts that we can share.

Combine different programmes and levels of study in a common effort. Foster exchange between them. Based on the results of this, create a class centred on interventions in public spaces. Let groups develop prototypes in this class based on their ideas and passions. Trust the students and let the prototypes develop. Most will fail, but a few will work. Do not stay in the classroom. Spend as much time outside as possible. Even if no fancy renderings and plans result from the class, you will have touched people and you will have taught students how to embrace humans with other life paths and philosophies. Encourage students to “disturb” the top-down planning paradigms that don’t accommodate their ideas. But also encourage them to join forces with local clubs, social workers, volunteers, and become their allies and (supplemental) voice. Let students work for the local community and get to know what a community is, because that is what forms the basis of every neighbourhood. But let them talk with everyone, with the authorities, with the investors. Continue to track progress and ideas. Be patient.

Pointers to Jump-Start Replication

The NEB Action Private Spaces for Public Use explores the transformation of monofunctional office buildings and their surroundings into vibrant, multifunctional urban spaces. At its core are Privately Owned Public Spaces (POPS) – privately owned but publicly accessible spaces that are often underutilised or neglected. A key component of the action is its experimental, hands-on teaching approach, which combines analytical methods, creative interventions and prototype testing. The action serves as an open invitation to rethink urban spaces and, as a first step, enhance them through creative, low-threshold measures.

Key Project Steps



Key Stakeholders

- 

Property Owners and Developers must be engaged from the onset to successfully transform the public spaces around monofunctional office complexes.
- 

Bringing Municipal Administration / Public Authorities on board at the conceptual stage ensures that the redevelopment of POPS aligns with local regulations and urban development priorities.
- 

Involving District Councillors and other political figures early secures political support and potential funding.
- 

The involvement of Civil Society / NGOs is essential to champion underrepresented voices and ensure equitable participation in reprogramming POPS.
- 

Involving Universities from the research phase through to the assessment of pilot interventions provides a multi-faceted approach to reprogramming POPS.

Evaluation of Replicability

- Potential**

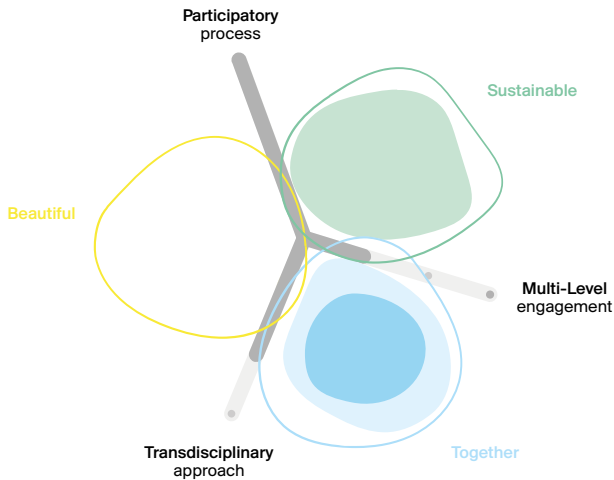
Innovation through Creativity

POPS offer a unique opportunity to create inclusive, multifunctional urban spaces. Integrating stakeholder engagement into experimental student projects can transform, these underutilised areas into vibrant, community-centred environments. With the right strategies, temporary interventions can inspire long-term investments, fostering sustainable and socially just urban development.
- Challenge**

Achieving Lasting Change

Translating student-driven experiments into lasting urban transformations is challenging. While temporary interventions showcase the potential of POPS, securing long-term commitment from property owners and funding partners remains a key hurdle.

NEB Evaluation Private Spaces for Public Use



“Reprogramming Public Private Spaces demonstrates how large, privately owned office buildings can be reimaged. As students, we gained valuable insights into our future roles in urban development processes while working to reclaim public-private spaces. The project showcased how a collective approach – bringing together seemingly disparate stakeholders – can lead to innovative development tools for urban spaces.”
Jan Engelke

Related Links



Private Spaces for Public Use

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Where Digital Meets Analog:



The Future of Urban Co-Creation

NEB Action: Mobility NEBourhoods

Key words

sustainable mobility • community hubs •
sharing • library of things • hybrid co-creation •
digital tools • digital twin

Partner

Chair of Architectural Informatics at the
Technical University of Munich

Beyond Screens and Paper: Unlocking New Opportunities for Civic Participation to Improve Mobility

During the last few years, many European (and international) cities have initiated Smart City and Digital City Twin projects and invested in databases and digital tools for urban planning. With an increased awareness of the social and political dimensions of urban digitisation, municipalities are discussing the potential of these technologies for civic participation. Digital tools promise new forms of communication, providing data as a basis for collaborative decision-making and for crowdsourcing ideas.

Especially in the case of context-specific infrastructure and urban interventions – like mobility hubs – it is crucial to include local stakeholders and perspectives on urban sustainability. The NEB Action Mobility NEBourhoods aimed to co-create two NEBourhood Hubs – modular and context-specific pavilions that combine mobility offers such as shared cargo bikes or a repair station with community functions such as lending out sports equip-

ment. These Hubs are meant to improve the quality of public spaces and promote sustainable mobility modes, responding to the specific needs of the Neuperlach neighbourhood and its mobility network.

Initially, we wanted to implement a configuration app allowing citizens to vote on the hub's configuration and location. However, a controversy arose: Is selecting from limited library options a productive form of participation? Did we understand Neuperlach's mobility well enough to frame it as a (three-dimensional) survey? What about ideas and opinions that didn't fit within a simple configurator? Lastly, who would find such an app accessible or attractive?

The proposed digital tool seemed to fall short in comparison to established co-creation formats focusing on informal knowledge, open-ended conversations and possible encounters with unexpected situations. Yet we believe that digital tools

still hold potential: Immersive visualisation can show invisible dimensions of urban spaces; game elements can structure engaging and explorative experiences. Digital methods could open new possibilities for the gathering and evaluation of ideas and opinions. We want to bridge this gap between analogue and digital participation media, contributing to the discourse on contemporary urban digitisation.

This manual consists of two parts: The first section provides guidelines for co-creating NEBourhood Hubs using a combination of digital and analogue co-creation approaches. The second part focuses on the digital tools and tooling approaches (see page 111) we've developed in this context. Using NEBourhood Hubs as an example, we show how digital tools complement analogue co-creation formats, supporting the co-design of decentralised urban interventions such as mobility solutions and climate adaptations.





Co-Creating NEBourhood Hubs

Our process map outlines the steps for the co-creative implementation of NEBourhood Hubs. While this project focused on foot and bike traffic interventions combined with social functions, the principles apply to other types of decentralised urban infrastructure.

First, it is essential to define the boundary conditions: What decisions need to be made, and which stakeholders are involved? What problems are well defined, and which need more open-ended exploration? Which co-creation formats suit the project and neighbourhood? In our case, future users were involved at all stages, from location selection to design and functional configuration.

Let's walk through the co-creation stages and explore how digital and analogue formats support each step. It is crucial to involve diverse perspectives, as mobility experiences vary by gender, economic situation, abilities and age.

Steps

1 Large-Scale Location



Depending on the area's size, location-finding might occur in two steps. First, a general area is selected: What are the important places that are either suffering from a problem or that offer potential for an intervention? Which areas lack multi-modal mobility offers or accessibility? What are important nodes in the traffic network?

Both analogue and digital tools focus on exploring urban spaces and mapping locations. A drifting workshop involved a collaborative exploration of Neuperlach, while an urban photography workshop allowed for independent location gathering.

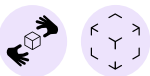
2 Small-Scale Location



After selecting a general area, pinpoint the Hub's exact position. Investigating the surroundings, learning about activities and discussing potential barriers are crucial. This step also considers technical factors, property ownership and regulations.

Workshops like drifting and photography allow direct engagement with urban spaces, while digital tools can map barriers and overlay physical spaces with digital elements.

3 Configuration of Functions



Functions are collaboratively selected based on the neighbourhood's needs. Since some features have clear spatial implications, the process is closely related to location-finding. This step ensures that future users can configure the Hubs in accordance with their requirements and wishes.

In a model-making workshop possible functions were explored by collaging miniature hubs, while digital tools supported this effort by allowing the placement of virtual items in a physical area or through design interactions.

4 Design



The number of customisable details depends on the manufacturer's processes. Design choices, including materials and construction, require expert input but should involve citizens in discussions, especially with regard to the aesthetic aspects.

The model-making workshop was key here, and digital tools supported visualisation and communication.

5 Scenario Workshops

Citizens, municipal representatives, and local institutions come together to develop scenarios for NEBourhood Hubs, combining design, function, and location. This type of workshop also covers

maintenance and engagement strategies. At the end, participants vote on scenarios to guide future steps.

6 Planning Phase and Installation

The planning process depends on the location – a public or private space. In Neuperlach, most pedestrian networks are privately owned, which can complicate approvals. Public spaces,

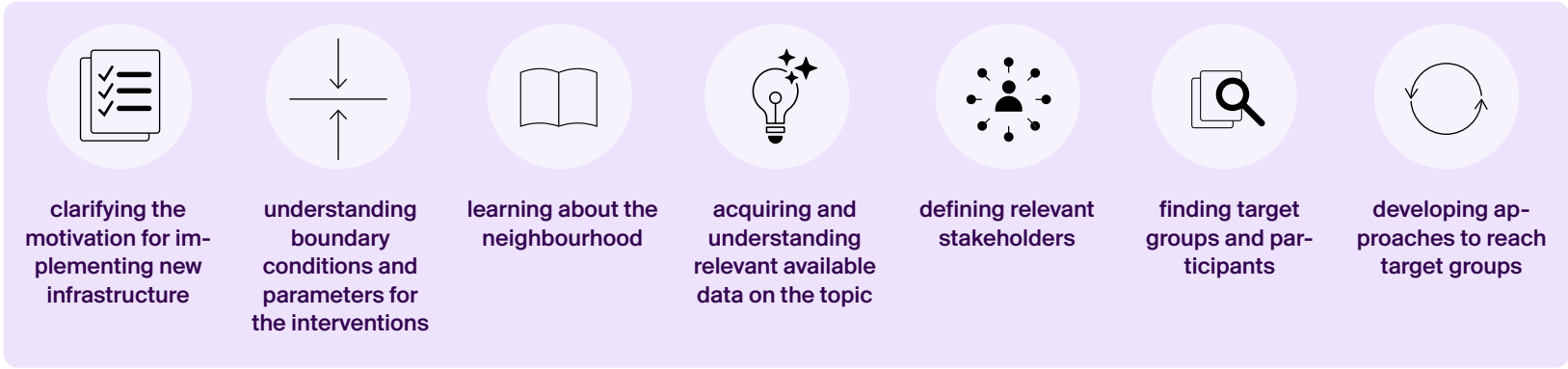
though they had a slower approval time, were more feasible. Permits acquisitions should be factored into the timeline.

7 Maintenance, Evaluation, Refinement

As installation progresses, the community should be informed and encouraged to provide feedback. Advanced features (such

as our app-controlled "Library of Things") may require on-site engagement to ensure user comfort.

Process Road Map



Preparation

Stakeholders
planners, administration, local institutions

Formats
internal workshops and meetings

The preparation of implementing a new infrastructure starts with learning about the neighbourhood to understand its dynamics and characteristics, identifying potentials for the creation of hubs based on local needs, and determining the roles of relevant stakeholders who can influence or support the initiative.

Co-Creation

Stakeholders
citizens

Formats
public workshops using digital & analog tools

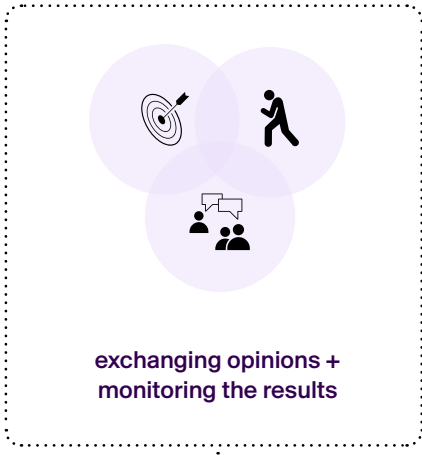
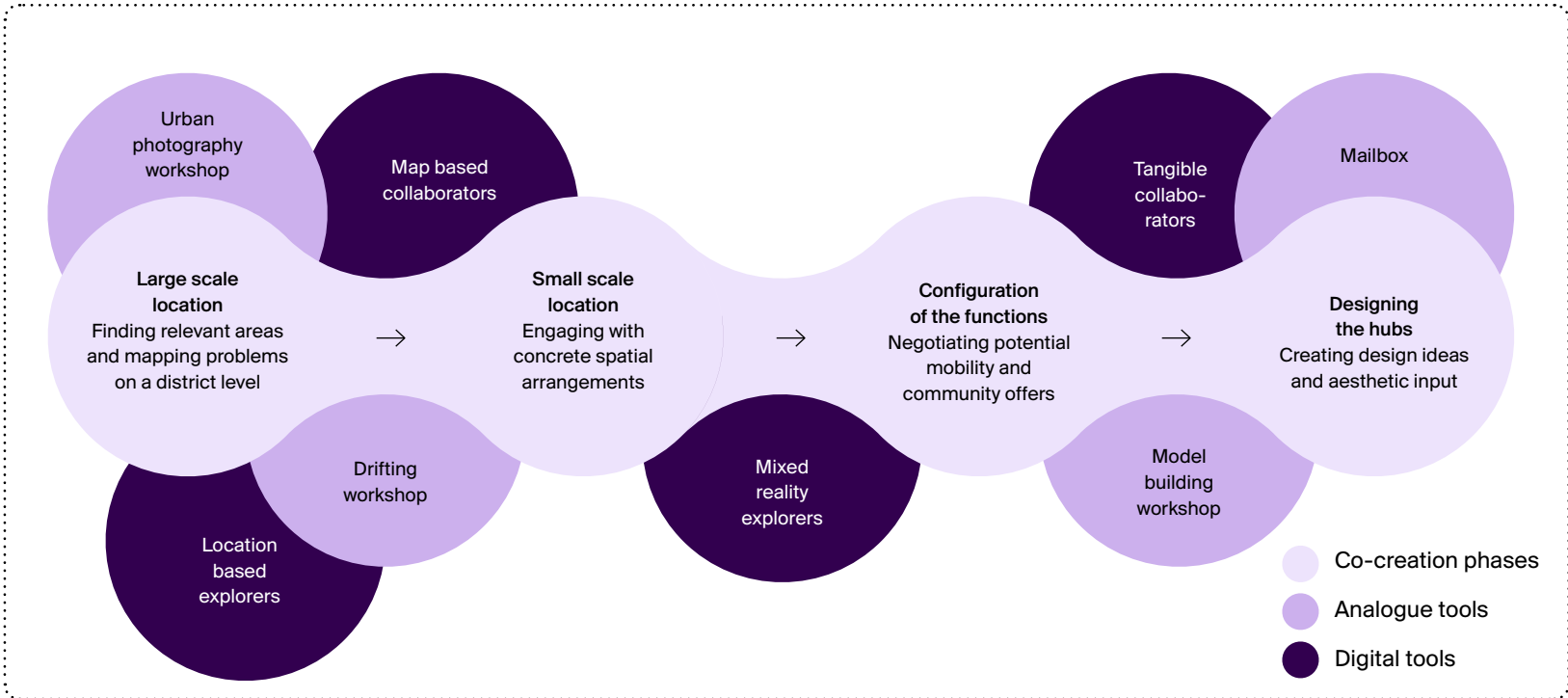
Co-Creation can be supported by methods that best suit the participants, whether through analog approaches, digital tools, or a hybrid combination of both. It involves analyzing a broad area, narrowing the focus to a specific location, identifying the site's needs to define its functions, and finally designing the infrastructure.

Scenario Workshops

Stakeholders
citizens, administration, local institutions

Formats
scenario building workshop

The evaluation of co-created scenarios explores their potential impact on the surrounding neighbourhood. It involves analysing the feasibility of proposed interventions, considering alternative locations and approaches, and determining the scenarios that align best with the project's goals and community needs. This phase ensures the developed concepts are practical, sustainable, and adaptable.



Planning Phase

Stakeholders
planners, administration, manufacturer

Formats
meetings, presentations

The favoured scenario(s) have to be translated into a concrete intervention. This involves collaboration between designers, manufacturers and government authorities to present ideas, gather feedback, and discuss potential intersections between regulatory frameworks and project goals. During these meetings, stakeholders collaboratively evaluate and refine the proposed scenario to ensure its feasibility. By presenting the possible scenario for implementation to the authorities, this phase aims to identify the optimal approach for securing project approval.

Installation

Stakeholders
manufacturer, citizens, local actors

Formats
workshops and public formats

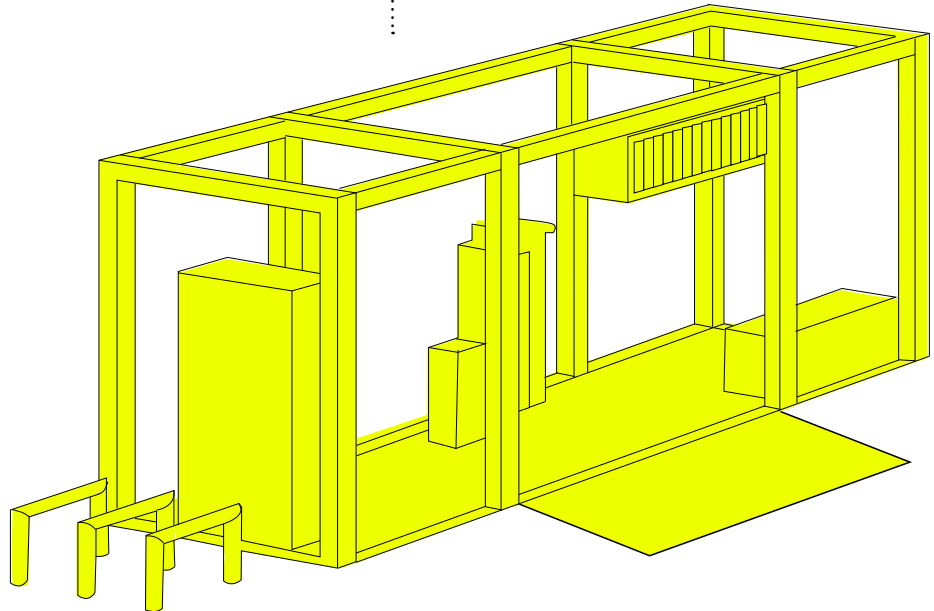
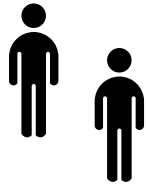
The installation of NEBourhood Hubs is accompanied by communication with citizens and local institutions. Public events and workshops secure acceptance and support the accessibility of features like borrowing objects from an object library. Regular monitoring and adjustments help maintain the project's relevance and functionality in the long term.

Evaluation and Refinement

Stakeholders
citizens and local organizations

Formats
public workshops using digital & analogue tools

This refinement and evaluation process is essential to ensure the infrastructure evolves in response to changes in the environment and the community's needs. The ongoing evaluation and possible improvement can rely on the same tools and formats as the co-creation phase, whether analog, digital, or a combination of both. Analog approaches, such as "Drifting," offer valuable insights into understanding inhabitants' perceptions of urban space, while mailboxes collect direct feedback. Digital tools, like "Mark Your Future," enable citizens to propose missing functions that arise over time. The multifunctional use of these tools allows a continuous, multi-stage dialogue to enhance the usability of the infrastructure.



Co-Creative Tooling

Rather than replacing analogue co-creation with a digital app, we reframe “digital tooling” as learning from and adapting existing formats. This process leads to a digital toolkit for co-creating NEBourhood Hubs (and similar infrastructures), integrating analogue interactions and digital technologies like XR, GPS, and urban data from Digital City Twins. For example, Mixed Reality Explorers build on a photography workshop’s interactions, offering an explorative urban experience enhanced by virtual content.

Drifting

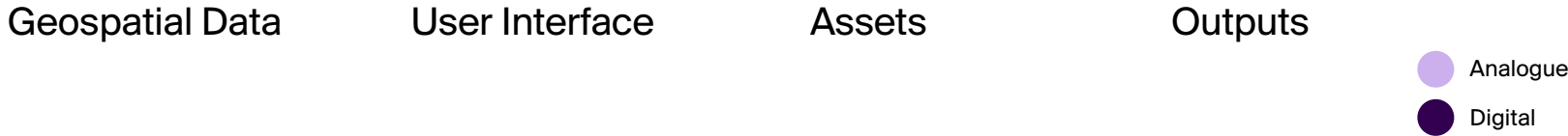
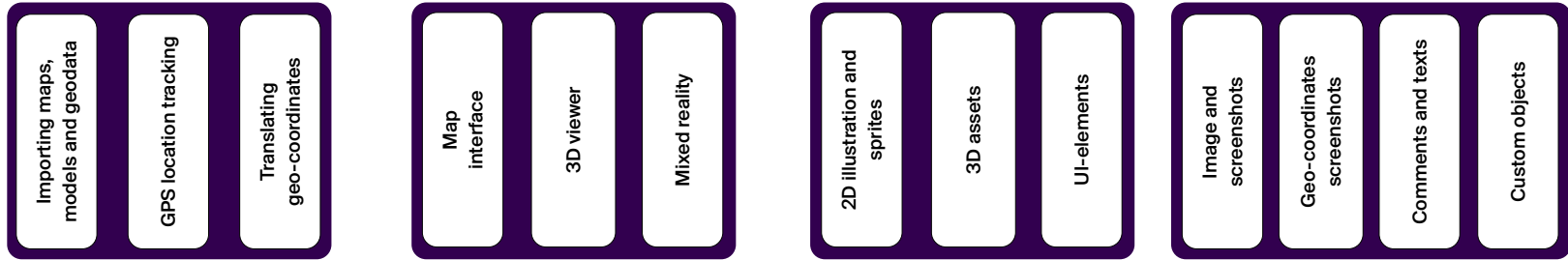
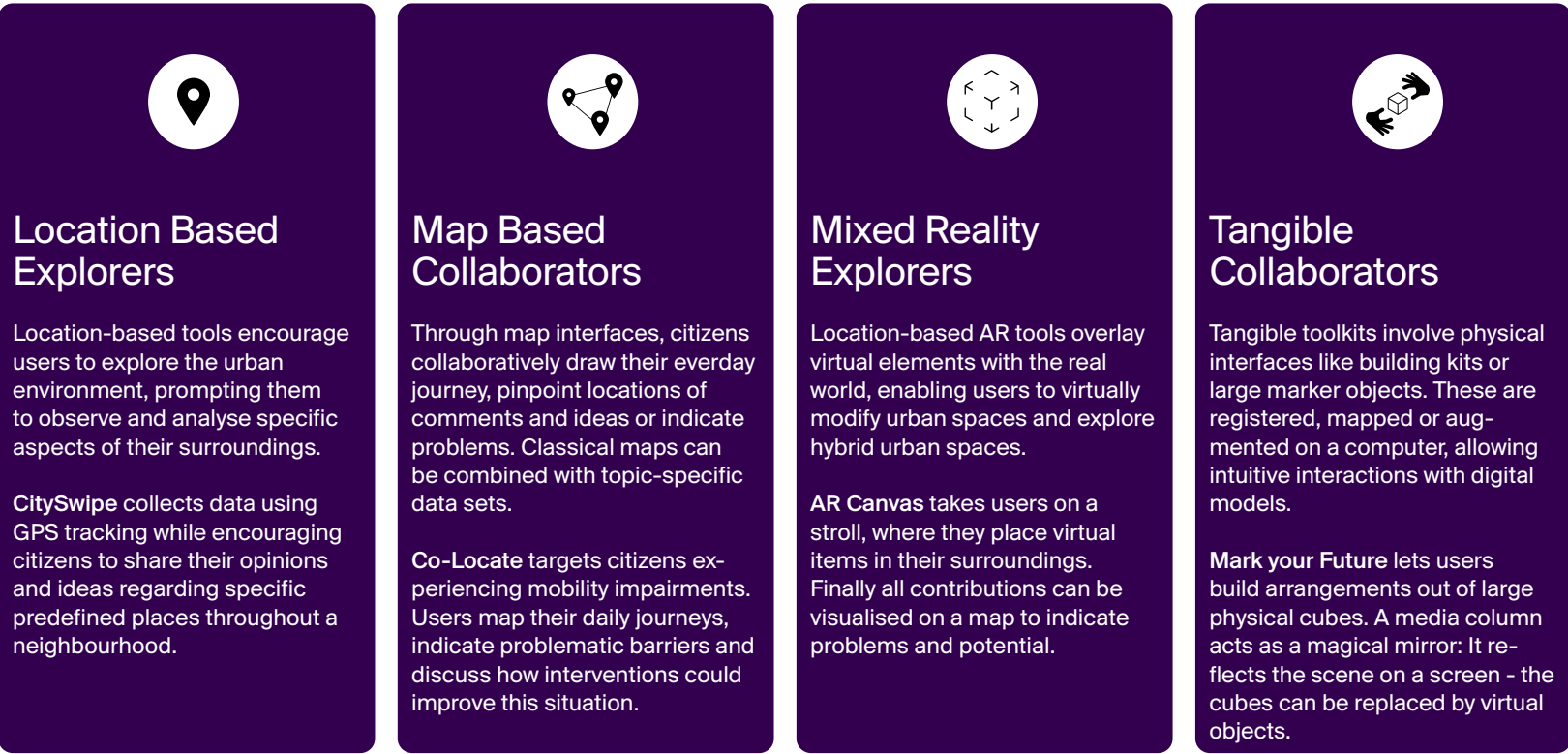
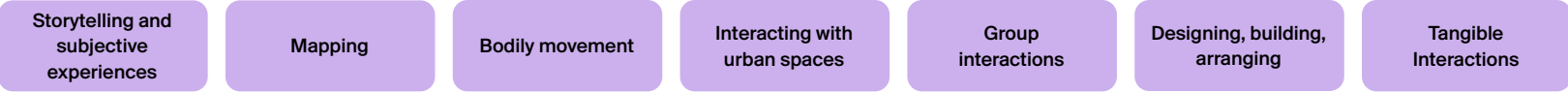
The Drifting workshop combined large- and small-scale location finding through collective movement. Moving playfully through urban spaces allowed us to explore urban spaces and identify potential locations for NEBourhood-hubs.

Urban Photography

The Photography workshop focused on capturing creative photographs of key locations with potentials or problems, encouraging participants to document these places visually and explain their significance.

Model Making

The Model Making workshop focused on designing miniature hubs by creating configurations with cardboard cubes and building scaled models to see their usability in real life.



Tech Functionalities

Several technical components, such as software libraries, scripts, and reusable elements, are created for a game engine (e.g., Unity or Godot). These components are combined in various tool prototypes about interactions and forms of collaboration were incorporated into the digital tools.

The target is not only to use digital tools for participation. Rather, we suggest that “tooling” requires an open-ended engagement with situational problems and the urban context. Insights from critical cartography and data feminism stress the importance of incorporating diverse social perspectives into digital media.

What biases do we address and which problems do we highlight? A white male app developer may not understand the security issues involved in walking home at night. Only those with mobility impairments fully grasp the impact of barriers in public spaces. How can we make sure a participation tool asks the right ques-

tions? The local community, their needs and everyday practices should be integral to the process and participation media. Hence, we view “tooling” as a continuous, open-ended activity that combines analogue and digital formats and allows for the integration of different stakeholders into this co-creation process.

Learning from Analogue Formats

Experimental co-creation formats have several advantages over common digital methods, as they include creative and aesthetic forms of expression: bodily movement, performative interactions and material engagement. Furthermore, low-tech approaches allow for more flexibility in adapting to context, unforeseen developments and new findings than a clearly structured digital tool.

Adding as-found technologies to these workshops can become an easy and

creative way to explore possible augmentations through digital media. Importing data from the municipal Digital City Twin could supply crucial information to collaboration processes (e.g., providing information on accessibility or public furniture). GPS tracking allows location-specific interactions and comments that can be referenced to a map. Mixed Reality opens up experimental, aesthetically interesting and intuitive interactions with physical and virtual spaces.

Co-Designing Tools

The resulting prototypes incorporate these technologies and merge them with key factors from the analogue participation workshops. They can be categorized into four types: “Location-Based Explorers” use GPS and urban geodata for urban exploration; “Map-Based Collaborators” focus on mapping and design activities;

“Mixed Reality Explorers” superimpose virtual elements on real-world spaces; “Tangible Collaborators” involve physical interactions with marker objects or building kits to support the design process. Each tool category fosters diverse urban interactions and co-creative decision-making.

Modding And Configuring Tools

Preparing digital tools for a specific task or urban context may require modifications (or, in gaming-lingo: “mods”). Modding involves adapting data, storytelling, or adding context-specific objects. This process also bears potential for co-creation. For instance, the geo-game “Drifter” (a “Map Based Explorer”) simulates mobility experiences such as nighttime safety for women or accessibility issues for in-

dividuals with mobility impairments. Each story is defined through interviews and involves data related to the discovered stories. Other tools include a library of objects which users can place to suggest functions. It’s vital to discuss with stakeholders which items should be included to ensure that proposals are realistic and relevant.





Using Tools

During our tests with citizens in Neuperlach, we learned about the importance of integrating digital media in on-site activities – with regard to both user experience and the quality of outcomes. For instance, many elderly persons struggled to use Augmented Reality apps and benefitted significantly from on-site support. Enacting digital tools soon evolved into a collabora-

tive activity between us and the citizens. Furthermore, it was crucial to gain a common understanding of the deployed digital media (e.g. what it means to place virtual objects) to make sure that the results were not arbitrary. On other occasions, the digital tools became catalysts for conversations that led to radically different insights than intended.

In general, we found that digital tools should be kept deliberately simple to avoid overwhelming users – employed in minimalist approaches and complemented by social formats such as workshops or by physical materials. This way, digital and analogue methods can flexibly respond to unexpected developments and sustainably strengthen local communities. Especially in projects like digital twins and smart cities, this approach can deepen the dialogue and foster stronger, bottom-up participation.

Different combinations of analogue and digital co-creation formats

Tools				
	Learning from Analogue Formats	Co-Designing Tools	Modding and Configuring Tools	Using Tools
Co-Creative Activity	Conducting experimental workshops or established formats and exploring creative usages of urban data and digital tools.	Combining insights from analogue formats with technical modules allows the development of concepts and prototypes for digital tools.	Adapting tools to specific spaces, stories, data sets and problems.	Using digital tools in workshops and hybrid participatory formats. They are employed as part of a detailed social format to make citizens comfortable with them and foster relevant results.
Example from our Process	During the Drifting workshop, we learned about collective spatial exploration. Furthermore, we experimented with GPS tracking and mapping in this context.	Collaborations with students and NEBourhoods creatives led to several prototypes. These concepts incorporated concrete findings from Neuperlach and the analogue workshops.	The location-based game “Drifter” was configured using qualitative interviews with citizens. Thus, the tool responded to specific mobility experiences from Neuperlach.	Mixed Reality tools could foster engagement with urban spaces and provide a compelling visualisation. However, supporting citizens in their use in a workshop was crucial.
When to use	Experimenting with digital tools and learning from analogue formats can be an ad hoc experiment in a participatory process or the initial step for developing new tools.	Creating new tools can be relevant when launching a larger participatory initiative or developing new participation formats within a digital city twin of smart city initiative.	Adapting tools to new locations, challenges, and topics can be essential when starting a new participatory process.	Digital tools can be introduced in hybrid formats.
Technical Effort	Low Can be done with workarounds, as-found technologies and ad-hoc experiments	High Building new tools requires expertise and resources	Medium Preexisting tools can be modded by changing data, assets, images and texts	Rather low Tools have to be explained and resulting information has to be visualised and analysed



Pointers to Jump-Start Replication

NEBourhood Hubs are multifunctional “mobility stations” that link local foot and cycle paths while serving as lively, social hubs. They encourage environmentally friendly mobility and promote community involvement. Designed in a hybrid co-creation process involving various stakeholders, each hub is tailored to the specific needs of the community it serves. The locally manufactured hubs include shaded seating, book exchange shelves, a “library of things”, a graffiti wall and rental services for mobility aids and cargo bikes. Residents are encouraged to keep the hubs relevant by providing ongoing feedback.

Key Project Steps



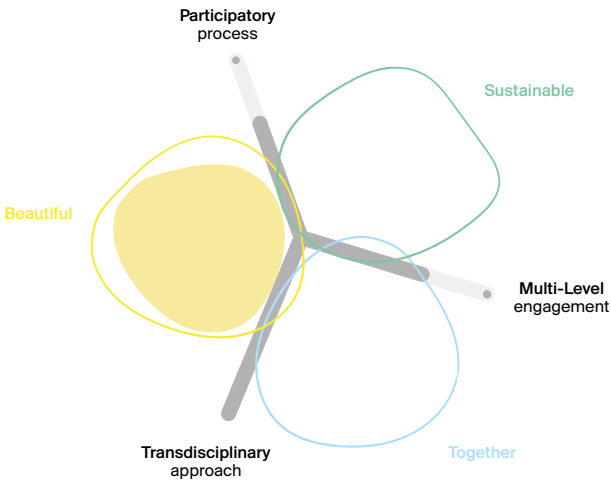
Key Stakeholders



Evaluation of Replicability



NEB Evaluation Mobility NEBourhoods



“NEBourhood Hubs focus on the sustainable and co-creative transformation of public and mobility infrastructure in Neuperlach. Through collaboration across disciplinary boundaries, we were able to develop engaging formats that fostered community and integrated diverse perspectives on mobility. Artists, students from various fields and community members worked together to co-develop the hubs: community meeting places that are not only attractive and accessible but also responsive to specific local needs.”
Matti Drechsel

Related Links



NEBourhood Hubs for Mobility and Neighbourhood

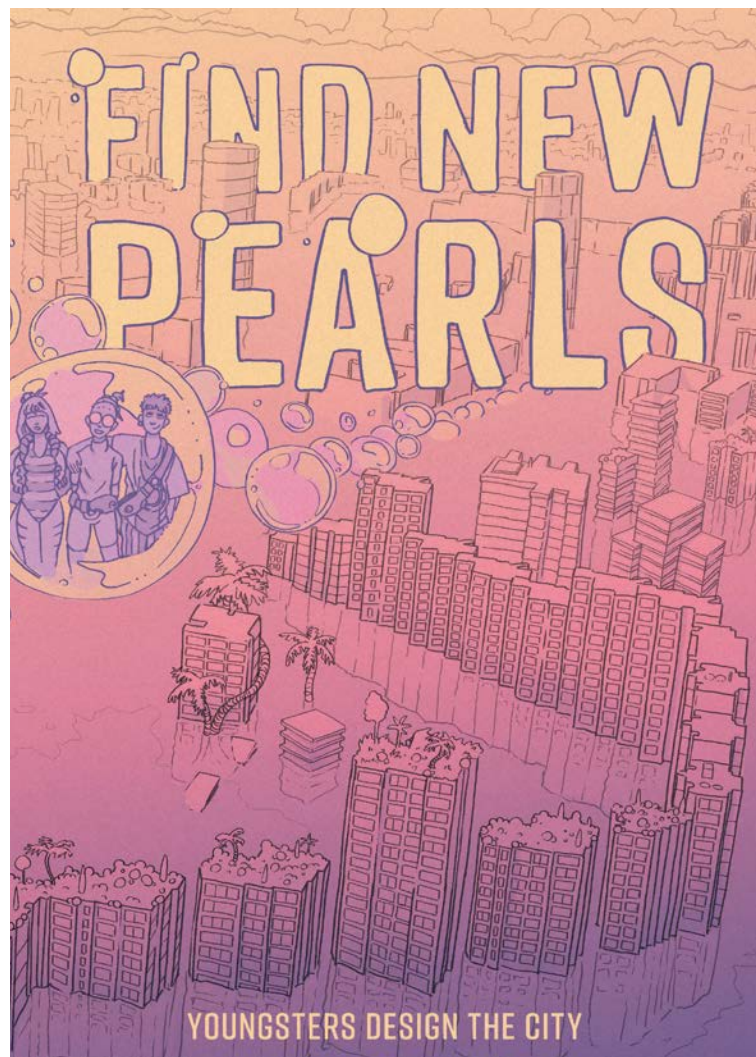
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Find New Pearls



NEB Action: Places for Youth Culture – PEARL

Key words

places for youth culture • self-efficacy • third places • performance / theatre • opening up and activating schoolyards • (re)activating spaces

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It is still common for decisions regarding young people to be made for them rather than together with them. One consequence of this is the lack of cultural offerings, cultural institutions or “third places” – informal meeting places that are free from the pressure to consume – for this age group. There are few spaces where young people from the neighbourhood can develop, express and cultivate their individual local culture.

Youngsters design the city

At the same time, the lack of dedicated places for young people often leads to conflicts with other neighbourhood groups because of differing everyday routines and interests. Open spaces are frequently nothing but lawns with minimal amenities and a scattering of trees and bushes. Moreover, these spaces are often located next to private ground-floor apartments and fully exposed to tall residential buildings. As a result, they are of limited appeal to young people and provide hardly any opportunities for self-determined use appropriation.

Working with young people and incorporating their unique perspectives on the city can uncover the hidden qualities of a neighbourhood.

When they have the opportunity to actively shape their surroundings and find an environment that supports their ideas, they are more likely to develop a lasting, positive connection to the place. This in turn creates a strong foundation for them to become engaged citizens and contribute to an inclusive and sustainable community.

The NEB Action Places for Youth Culture – PEARL aims to develop a transdisciplinary approach to establishing cultural places

where young people can meet and engage in dialogue. It encourages them to move beyond tentative ideas and to articulate and pursue bold visions. Since young people are often unaware of the scope of what they can achieve, it is essential to expand their horizons from the outset.

To support young people in discovering and (re)appropriating spaces in their neighbourhood, an interdisciplinary team of architects, urban planners and theatre / cultural professionals has been working alongside them. Since the places that young people claim often have a fleeting character, space and performance are considered together.

The goal is for them to engage with their living environment and actively transform and revitalise it as a self-empowering social, political and artistic act. In joint efforts, (temporary) spaces for youth culture can take shape and flourish. Through performative interventions in existing urban structures, young people's ideas can be showcased – either to reinforce what already exists or to initiate lasting, sustainable change.

The projects developed for PEARL as part of Creating NEBourhoods Together include temporary, replicable interventions

in public spaces – such as Feedback Neuperlach audio walks and the mobile bicycle cinema Ciné Veló Cité – as well as the permanent CHILLspORT intervention in a schoolyard.

The results highlight the importance of community participation throughout the co-creation process to ensure that all public space interventions reflect youth's needs and values while aligning with ongoing neighbourhood developments. This approach bolsters both feasibility and long-term acceptance.

The three PEARL projects serve as a model for how cultural spaces for young people can be established and how collaboration with them can be structured in line with NEB values. They emphasize both the co-creation process and concrete implementation strategies. Since working with young people in youth cultural spaces requires a deep understanding of local conditions, the projects presented here should be seen as adaptable concepts rather than fixed blueprints.

All elements of the NEB Action PEARL foster co-creation and a collective reinvention of places, lifestyles, and communities with which local people identify.

... ZOYA, IFIGENIA AND FURKAN, THE THREE YOUNGSTERS FROM NEWPEARLACH, SWIM ON WHEN SUDDENLY THEY NOTICE THE WAVES COMING FROM A BUBBLE. AS IT IS VIBRATING MORE AND MORE ... THEY CIRCLE THE BUBBLE AND NOTICE VOICES?!

CRAZYYY WHAT IS HAPPENING WITH THESE WAVES?!

...DUIIUIDE...
...YES, PEOPLE ARE ALWAYS SMOKING THERE, ALSO WEED...
...YOU HAVE TO BE CAREFUL WHO YOU HANG OUT WITH...

AAH WAIT... COULD BE...BUT NO, FAR TOO CRAZY! I ONCE HEARD THAT...COULD BE THAT THESE WAVES ARE SWINGING MORE AND MORE WHEN MANY YOUNG PEOPLE THINK ABOUT THEIR NEIGHBOURHOOD... HAHA. THEY CAN EVEN REVIVE ANCIENT IDEAS OR CREATE COMPLETELY NEW ONES... MAYBE THEY TELL FROM EARLIER TIMES?!

REALLY, IS THAT TRUE? IT WOULD BE SO NICE IF WE HAD FOUND SOME.

THERE'S EVEN MORE DOWN THERE!!

IT'S "FEEDBACK NEUPERLACH", A RADIO PLAY PROJECT IN WHICH YOUNG PEOPLE FROM THE YEAR 2023 TALK ABOUT THEMSELVES AND THEIR LIVES. THE PROJECT WAS CREATED TOGETHER WITH 'KOPFKINO', HENRIETTE F. SCHMIDT, BENNO HEISEL, YOUNG PEOPLE FROM CLASS 9PM OF THE 'MITTELSCHULE AM DER ALBERT-SCHWEITZER-STRASSE' AND THEIR TEACHER WOLFGANG DOTTERWEICH. YOU CAN LISTEN TO THE ENTIRE RADIO PLAYS AT KOPFKINO-PODCAST.DE.

AFTER A WHILE THEY END UP AT THE PEP, THE STAIRS AT THE BACK COULD HAVE BEEN THE ENTRANCE BACK THEN, NOW IT'S COMPLETELY LOST.

GUYS TAKE A LOOK WHAT'S HAPPENING HERE? SO COOL IF THESE ARE ACTUALLY WAVES FROM THE PAST

IF IT WAS THAT PLACE, A DATE IS PROBABLY NO LONGER POSSIBLE HERE...

THEY LOOK AROUND

WHAT KIND OF FINS DOES IT HAVE?
...AH OH WELL IT CAN'T SWIM AT ALL IT LOOKS LIKE AN OLD... WHAT WAS IT CALLED, A PEDAL BIKE? BICYCLE? DO YOU REMEMBER?!

THERE'S SO MUCH GOING ON TODAY, ALREADY ANOTHER BUBBLE

IT IS THE 'CINÉ VÉLO CITÉ', A CYCLE CINEMA INITIATED BY THE ARTIST PATRIK THOMAS, WHICH IS ON THE ROAD IN NEUPERLACH SINCE 2023 AND MADE CINEMA IN THE NEIGHBOURHOOD. ON INSTA @CINEVELOCITE OR AT CINEVELOCITE.DE YOU CAN FIND MORE INFORMATION ABOUT IT.

THEY BEGIN TO REALISE THAT THEY ARE TRULY LISTENING TO YOUNGSTERS FROM THE YEAR 2023.

MAYBE THEY WERE BORED AND AT LEAST THERE WAS SOMETHING GOING ON, A LITTLE ADVENTURE

WE ARE NOT WANTED ANYWHERE

HERE IS ANOTHER STORY, THEY ARE LOOKING FOR A PLACE FOR A FIRST DATE, SOUNDS COMPLETELY DIFFICULT

...NO YOU'RE CRAZY, AT THE PLAYGROUND MY MUM CAN SEE EVERYTHING FROM THE BALCONY, MAYBE THE PASSAGES AT THIS PLACE... NO YOU CAN'T SIT THERE COMFORTABLY...

OH I KNOW THAT SO WELL, I HAD IT THE OTHER DAY...

AAH THAT'S A REALLY GOOD IDEA! YES THE STAIRS...

HE BREAKS OFF AND TURNS RED, HE LOOKS AT IFIGENIA, IFIGENIA ALSO TURNS RED, ZOYA LOOKS CONFUSED

IFIGENIA HAS REGAINED HER COMPOSURE AND QUICKLY DISTRACTS FROM THE TOPIC BY SUGGESTING TO LOOK FOR THE STAIRS, WHICH COULD BE AN IDEAL CHILL-OUT SPOT FOR THEM.

NOO, THAT'S REALLY EMBARRASSING WHEN YOU SEE ME NOW ON THE SCREEN

NONSENSE, THAT'S REALLY COOL... BE PROUD OF YOURSELF AND YOUR STORY

IN THE MEANTIME THE THREE OF THEM HAVE HUNG UP THE SCREEN. THE FILMS ARE ATTRACTING MORE AND MORE YOUNG PEOPLE... CURRENTLY A FILM IS SHOWING A SCREENING 2023 ON A BRIDGE.

THEY WANT TO EXPLORE FURTHER AND SET OFF WITH THE CINEMA, DIVE DEEPER AND DEEPER... AND THEY ARE BECOMING MORE AND MORE PEOPLE.

THE YOUNGSTERS LOOK DEVOUTLY AT THE STRANGE SNAIL. IT BECAME A BIT LONG IN THE TOOTH... CAN YOU STILL GET UP THERE? ONLY NOW THEY REALISE THAT THEY ARE STANDING ON THE FORECOURT OF THEIR SCHOOL.

WOWWWW SO CRAZY, IT MUST HAVE BEEN HERE!

YEAH, MY GREAT-UNCLE USED TO BE A TEACHER HERE. HE SAID THAT ONE CLASS USED TO PLAN AND BUILT THIS CONSTRUCTION 'CHILLSPORT' ONCE A WEEK, INSTEAD OF MATHS AND ENGLISH.

THE YOUNGSTERS HANG OUT A BIT, IT'S KIND OF COOL HERE. THE TECH TEACHERS AND THE SCHOOL FEEL PRETTY FAR AWAY RIGHT NOW. THEY SHOOT A FEW HOOPS AS WELL, FURKAN MISSES THE BALL AND CRAWLS UNDER THE BIG OUTSIDE STEP TO GET IT..

FURKAN HAS FOUND A TIME CAPSULE*** FROM THE YEAR 2024, THEY CAREFULLY OPEN THE LID, TO REVEAL A BLUEPRINT...

***TIME CAPSULES WITH DOCUMENTS ARE OFTEN BUILT IN BUILDINGS, ITS MADE TO PRESERVE KNOWLEDGE FOR FUTURE GENERATIONS.

HEY PEEPS TAKE A LOOK

COOL WHAT IS THAT?

AAH... THERE WAS THIS BIG PROJECT NEBOURHOODS - AND A PROJECT CALLED PEARL WAS A PART OF IT. THEY WANTED TO GIVE YOUNG PEOPLE A VOICE IN URBAN PLANNING AND CREATED PLACES FOR YOUTH CULTURE...

FOR MORE STORIES ABOUT THE NEWPEARLACH YOUNGSTERS IN 'FIND NEW PEARLS' BY ANDREA BENZE, JANINA SIEBER AND TILL FÖRSTER, FOLLOW US ON INSTAGRAM @FINDNEWPEARLS

THEY SEE A LARGE SHAPE RIGHT IN FRONT OF THEM.

ISN'T THAT THE STORY OF THIS GIRL CALLED HAURAT? SHE PLAYED BASKETBALL HERE EVERY DAY IN HER SPARE TIME AND EVENTUALLY BECAME A PRO.

YOU COULD HANG OUT THERE AND DO SPORTS. THEY WANTED TO CREATE A PLACE FOR YOUNG PEOPLE.

CREATING NEBOURHOODS TOGETHER

Lessons Learned

Individual Neighbourhoods

Working with young people in youth cultural spaces relies heavily on understanding the specific conditions in each neighbourhood. Therefore, the co-creative work processes must be adapted to different ideas, contexts and needs. Ciné Vélo Cité and FeedBack Neuperlach, for example, are mobile prototypes designed to respond to their surroundings, and could also work in other places. However, their success depends on a network of relationships and active individuals, which can vary significantly from one neighbourhood to another.

Lessons Learned

Co-Creation Process

A transdisciplinary team of artists, architects, urban planners, students, educators and pupils forms the foundation of the NEB Action PEARL. Each participant brings a different kind of expertise to the table. However, roles are not rigidly assigned to specific individuals –discussions and actions remain open to everyone at the beginning of each step, fostering teamwork beyond disciplinary boundaries.

Collaboration with schools takes place during school hours to ensure the mandatory participation of young people. Preliminary investigations had primarily focused on informal activities outside institutional settings, but these proved insufficient to sustain a reliable level of cooperation. Working with regular classes and courses ensures the necessary commitment for such a project. To prevent organisational challenges, group sizes should remain manageable.

Lessons Learned

Openness to Involvement in Local Processes

For the success, beauty, inclusiveness and sustainability of the project, it is essential to collaborate with local partners and engage in local processes. For permanent projects in public spaces, start looking for collaboration partners early. Introduce key local actors such as youth social workers, educators and neighbourhood managers to the initial project steps.

In addition, secure funding for materials as early as possible.













Pointers to Jump-Start Replication

Places for Youth Culture – PEARL has been working with young people in Neuperlach, identifying areas where they can engage with and influence their community. Partnering with a theatre, the NEB Action offered them the opportunity to realise ideas for sustainable change and cultural enrichment through film, urban storytelling, and music. Three projects were developed. The FeedBack Neuperlach audio walk gives insights into the everyday life of local youth. The mobile bike cinema, Ciné Veló Cité, has been popular in Neuperlach, which lacks a cinema. CHILLspORT, created jointly with a local school, is a schoolyard transformation and municipal prototype meant to explore the feasibility of schoolyards as gathering spaces.

Key Project Steps



Key Stakeholders



Architects, urban researchers and students of these disciplines to develop and realise the actions / projects with the pupils, as well as various artists



Pupils, educators, heads of school from local schools



Neighbourhood managers to initiate the collaboration with schools and to support the incorporation of success stories into policies.

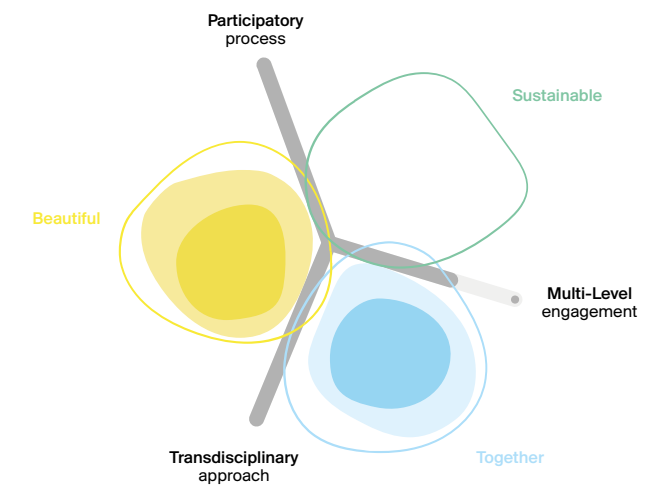


City administration for regulation and approvals and locally elected policymakers for wider acceptance of action in the neighbourhood



Educators from youth clubs and cultural activists for spreading ideas and discussing them with the project team

NEB Evaluation PEARL



“The objective of Places for Youth Culture – PEARL is to enable young people in Neuperlach to develop, articulate and pursue their individual local culture. Despite the high percentage of young people in this neighbourhood, there is a lack of opportunities. Working in a transdisciplinary team with pupils, educators, artists, architects and urban designers enabled us to create a light-hearted and productive working atmosphere that respected all abilities. We achieved an extremely enriching form of togetherness.”
Andrea Benze

Related Links



Places for Youth Culture – Finding New PEARLs

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Evaluation of Replicability

Potential

Extra-Disciplinary Collaboration

The transdisciplinary collaboration we developed focused on immediate action by combining artistic and urban design methods. It allowed us to create precisely fitted solutions and to motivate locals to continue to work on the ideas independently. The self-efficacy experienced especially by the young people will influence their stance towards democratic processes and toward active transformation of the neighbourhood.

Challenge

Approvals and Aligning Implementations with Administrative Processes

The NEBourhood project created an extraordinary situation which accelerated some administrative processes and made it easier to identify contact persons. However, every situation is different and the big challenge lies in developing an idea that aligns with existing processes and issues.

* Jointly with university students as part of their curriculum

Public Power – Solar Shading Prototype



Increase in the Number of Extreme Heat Days in Cities

The growing heat stress caused by climate change is turning large parts of urban areas into a threat to our health. Urban overheating is a global phenomenon affecting pedestrians in cities worldwide, urgently requiring strategies to adapt to changing climatic conditions. However, the planting of trees to provide natural shade is often not an option. Vulnerable groups, in particular, are at risk from thermal stress, making public spaces difficult for them to access. The NEB Action Public Power aims to reduce temperatures in urban areas through shading measures, thereby preventing social exclusion and restoring the quality of public spaces. These shading elements will also integrate solar panels for energy generation.

NEB Action: Public Power

Key words

thermal heat stress • shading architecture • healthy spaces • climate adaptation • universal accessibility • lightweight structure • bamboo • wood • solar energy • heat islands • environmental quality • outdoor classroom

Partner

Chair for Building Technology and Climate Responsive Design at the Technical University of Munich, structure GmbH

Climate-Friendly Designs of Public Spaces in Neuperlach

In Neuperlach, we examine heat islands in public spaces and identify areas where shading measures make sense in terms of social usability, eco-

logical integration, and economic value. Through participatory formats, we work with the community to develop demonstrators that showcase how climate-con-

scious design can lead to social, ecological, and economic enhancement, foster identity, and create an inclusive, liveable, beautiful and sustainable city.



The UTCI temperature map presents a rich, spatially detailed overview of the thermal conditions across Neuperlach during a typical heat wave in summer. It is readily apparent that paved street surfaces heat up to 30–40°C during the day, while at the same time, shaded, unpaved ground maintains a 20°C temperature, making it about 10–20°C cooler. Especially on days with direct sunlight, shading is particularly effective in protecting against extreme heat.

The Potential of Combining Shading and Photovoltaics (PV) in Public Spaces

Many shading projects already exist, especially in cities in hotter climate zones, but their impact on reducing urban heat stress becomes significant only when they are implemented on a certain scale. However, such projects are

expensive to scale up significantly, and cities often lack the necessary funding to support them. Integrating photovoltaic (PV) systems into shading structures offers a practical solution. By generating renewable energy in public spaces, these

installations can help offset costs, making large-scale shading projects more financially viable while simultaneously contributing to sustainable energy transition at a municipal level.



Why is Extreme Heat Dangerous?

As mammals, humans are homeothermic, meaning that we must maintain our core body temperature at around 37°C. A deviation of just a few degrees can pose serious health risks or even be life-threatening. We regulate our energy use through physical processes and behavioural changes. This evolutionary adaptation allows us to survive and function in environments that differ significantly from our ideal body temperature.

Our bodies constantly exchange heat with the surrounding environment, influenced by factors such as weather conditions, the clothes we wear, and how active we are (e.g., whether we are exercising or relaxing in a hammock). The interaction of these processes determines whether the body gains or loses heat and remains in balance. Generally, the higher the ambient temperature, the harder it is for the body to release heat.

NEB-Demonstrator

Solar Power Shading Structure

The prototype for the “NEBourhoods Shading Architecture” was developed in collaboration with the students and teachers of the Campus di Monaco Montessori school. Since the greenspaces of the school are situated above the roof of the underground parking garage of the adjacent shopping centre, no shade trees can be planted there, making the space virtually unusable for the students during the height of summer.

The shading architecture created a comfortable shaded outdoor area for recreation, which also fulfilled the wish students had expressed for an “outdoor classroom”. Lessons held here have access to the electricity generated by the integrated photovoltaic modules which everyone can use.

The shading structure is an element of the school and neighbourhood garden, “Hortus di Monaco”, which is a project of the Growing a Tasty Neuperlach NEB Action Growing a Tasty Neuperlach in

which the school community and the adjoining neighbourhood participated. The development of the roof therefore helps strengthen a sense of belonging and forms a bridge between the school’s identity and that of the surrounding neighbourhood by activating an unused public space and the local populace. While the overall Hortus garden fosters creation and integrates social values, Public Power only acts as an umbrella, creating that necessary space.

All project stages were communicated to the public and neighbourhood through different inclusive formats, and decisions were consolidated by drawing on public feedback throughout all stages. Public Power doesn’t empower and sustain grass-roots initiatives beyond project implementation, as the shading structure itself is owned and operated by a private stakeholder (Campus di Monaco). The “base” of the structure, the benches,

is made of wood, while the NEBourhoods shading architecture construction itself is made of bamboo, which belongs to the grass family. In favourable conditions, bamboo grows between 30 and 80 centimetres a day, so this fast-growing natural product is very sustainable and stores CO2 to boot. Bamboo is both robust and flexible, which makes the curved shape of the shading architecture possible.

“It is wonderful to see the New European Bauhaus here on the local level – and the many, many young people with splendid ideas. Something is growing here from the bottom up that brings with it not only beauty, but also functionality. But also very importantly, sustainability and more social togetherness. It couldn’t be better.”

Ursula von der Leyen, President of the European Commission



Infrared images demonstrate the positive effects of shading by illustrating surface temperatures (radiant temperatures) of different materials.





A simple construction lay at the heart of the design process. It makes it possible to produce and assemble the structure through simple means, even without expensive, complicated or heavy tools. This is intended to create a higher level of identification through participation. The structure can be set up on any type of ground at any location, and it can also be readily deconstructed and rebuilt elsewhere.

Stakeholders

District Committees (Politicians)

- Engage at the project start.
- Facilitates smoother planning with broader acceptance.
- Politicians benefit from voter approval and improved public image.
- Requires more effort initially to manage transparency and engagement.
- Opposition risks project failure or poor acceptance.

Property Owners / Administration

- Include during site selection and analysis of feasible locations.
- Supports faster planning with clarity regarding costs, benefits, comfort, and image impact.
- May require iterations to address additional needs, potentially increasing timelines.
- Resistance could hinder project success or public acceptance.

City Utilities

- Involve at the project start or once the location is confirmed.
- Ensure integration of power feed-in systems.
- Potential for revenue and enhanced public image.
- Risks include cost increases or inability to integrate power systems.

Planners/Designers

- Engage during planning when specific expertise is required.
- Provide necessary expertise for high-quality outcomes.
- Concerns regarding costs, revenue, and public image.
- Selecting the wrong professionals or firms risks poor design, quality issues, or project delays.

Residents

- Since they are directly impacted, involve them in the process once concepts and location are determined to ensure greater acceptance and potentially faster planning.
- Proceed with a high degree of transparency, which requires initial effort but may lower resistance in the long term; resistance could lead to project failure or poor post-implementation acceptance

Manufacturers

- Include during planning to ensure expertise is applied early.
- Leads to better quality outcomes.
- Balances costs, revenue, and image considerations.
- Risks include increased costs or errors in execution leading to delays or diminished project quality.

Neighbourhood Management

- Essential for reaching stakeholders.

Why Has it Hardly Been Implemented so far?

The limited implementation of such projects can be attributed to several factors. A key challenge is the lack of existing examples to follow; it is always easier to implement a concept when proven models already exist. In addition, general awareness of the importance of shading and renewable energy integration in urban spaces is lacking.

Building in public spaces presents unique difficulties compared to private settings. Public projects typically involve a greater number of stakeholders, including decision-makers and various

municipal authorities, which complicates the process. Stricter regulations and more stringent requirements, such as ensuring protection against vandalism, further add to the complexity. Ambiguities surrounding ownership and decision-making authority – questions like “Who owns what?” or “Who has the final say?” – also create significant barriers. Lastly, public space projects often face longer implementation timelines, making rapid deployment difficult. Ultimately, it all comes down to the perception of high costs.

What Is Needed to Overcome these Obstacles?

Increasing awareness of the importance of shading and renewable energy integration in public spaces is essential to address these challenges. Decision-makers need to approach such projects as an investment, recognising the long-term (sustainable) social, environmental and economic benefits they offer. Cities must also take greater responsibility for driving these initiatives by providing leadership and resources to ensure their successful implementation. In this context, municipal contributions – such as funding, expertise, or streamlined processes – could play a crucial role in overcoming barriers and accelerating the realisation of such measures.





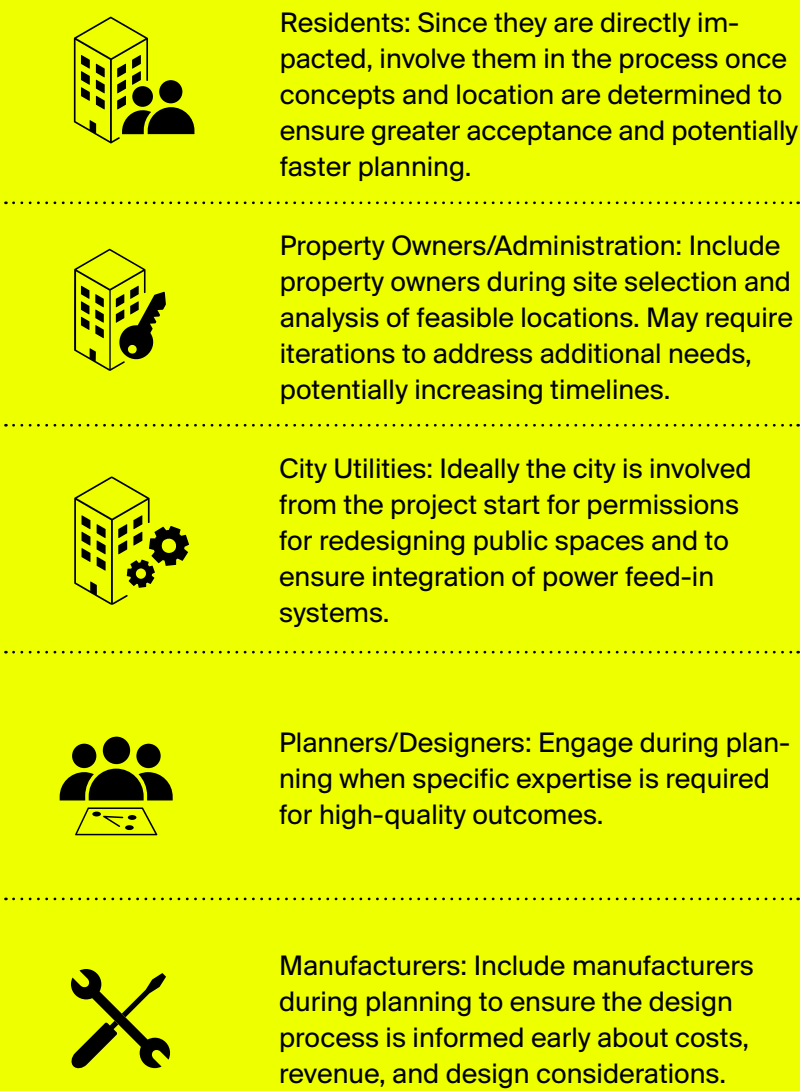
Pointers to Jump-Start Replication

The Action was created to examine Neuperlach for heat islands in public spaces and identify areas that make sense for shading measures in terms of their social usability, ecological integration, and sustainable value. This includes not only shading but also the secondary potential analysis of combination solutions with photovoltaic systems to expand renewable energy production and infrastructure beyond the adaptation of the building stock to the public realm as a mediator for the energy transformation.

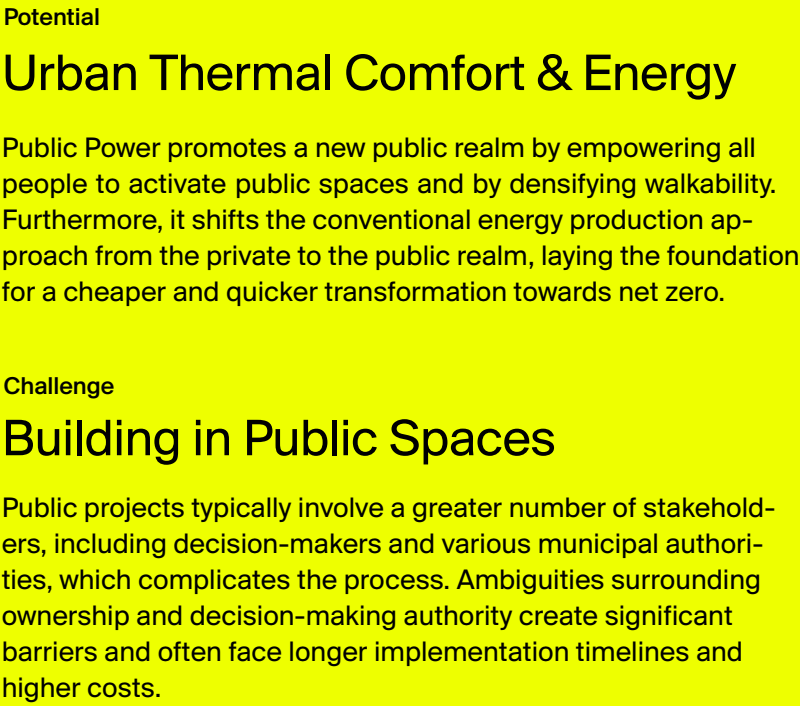
Key Project Steps



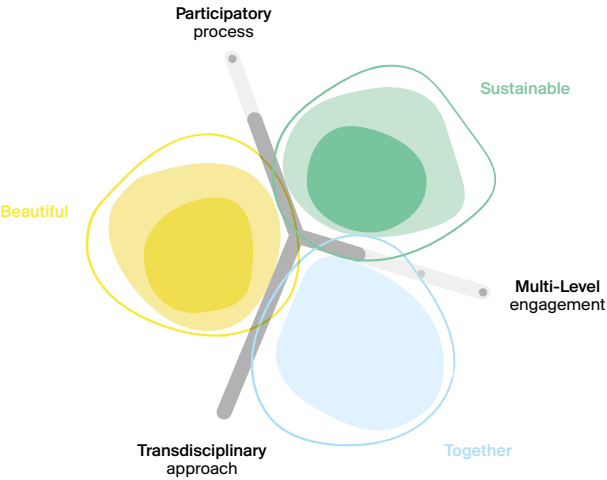
Key Stakeholders



Evaluation of Replicability



NEB Evaluation Public Power



“Vast areas of the public realm are becoming a danger to our thermal health, as the urban fabric we designed decades ago cannot mitigate the increase in heat exposure brought on by climate change. This poses a health risk particularly to vulnerable groups (young children, senior citizens and people with pre-existing conditions). Public Power implements socially, ecologically and sustainably valuable shading to reduce temperatures in urban spaces in order to restore quality of life and prevent social exclusion.”
Sebastian Clark Koth

Related Links



Shade and Energy in Public Space

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Empowering Communities

NEB Action: Energy Communities

Key words

decentralised and renewable energy supply •
cooperative • energy transition • diverse op-
portunities for participation

Partner

Chair for Building Technology and Climate
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of Munich

The NEB Action Energy Communities in Munich-Neuperlach is designed as a prototype and visible flagship to demonstrate the feasibility, profitability, and societal benefits of local renewable energy production and consumption. Achieving a sustainable energy future requires collective action. Energy communities empower citizens to take more control of their energy supply, reduce costs, and establish new climate-friendly routines. They offer the opportunity to support the energy transition envisioned by the European Green Deal. Nevertheless, there are numerous barriers and challenges to their implementation.

for a Sustainable Energy Future

The guidelines we have developed are designed for anyone who wants to join the movement and start an energy community. Whether you represent a city administration, a civil society group, or a community initiative, they will help you to navigate the process from idea to implementation. While they draw on best practices developed during the founding of Energiegemeinschaften München eG as part of Creating NEBourhoods Together, they are designed to be adaptable to various European contexts.

Energiegemeinschaften München eG

When we developed our energy community, our priority was to allow all district residents to participate in and to engage with the project in a variety of ways, be it through the provision of suitable installation sites, through financial means or by working to take care of the facilities and the organisation. Even the legal framework for the community was developed jointly with all who were interested in taking part.

It is through such collaboration that people, local institutions and businesses work together to generate renewable energy. A local network is created in which all participants have the opportunity to involve themselves and to share in the decision-making. Resources, available mounting surfaces, time and financial means are thus bundled, and the generated electricity is fairly apportioned to all parties.

In this way, the energy community gives everyone their equitable share.

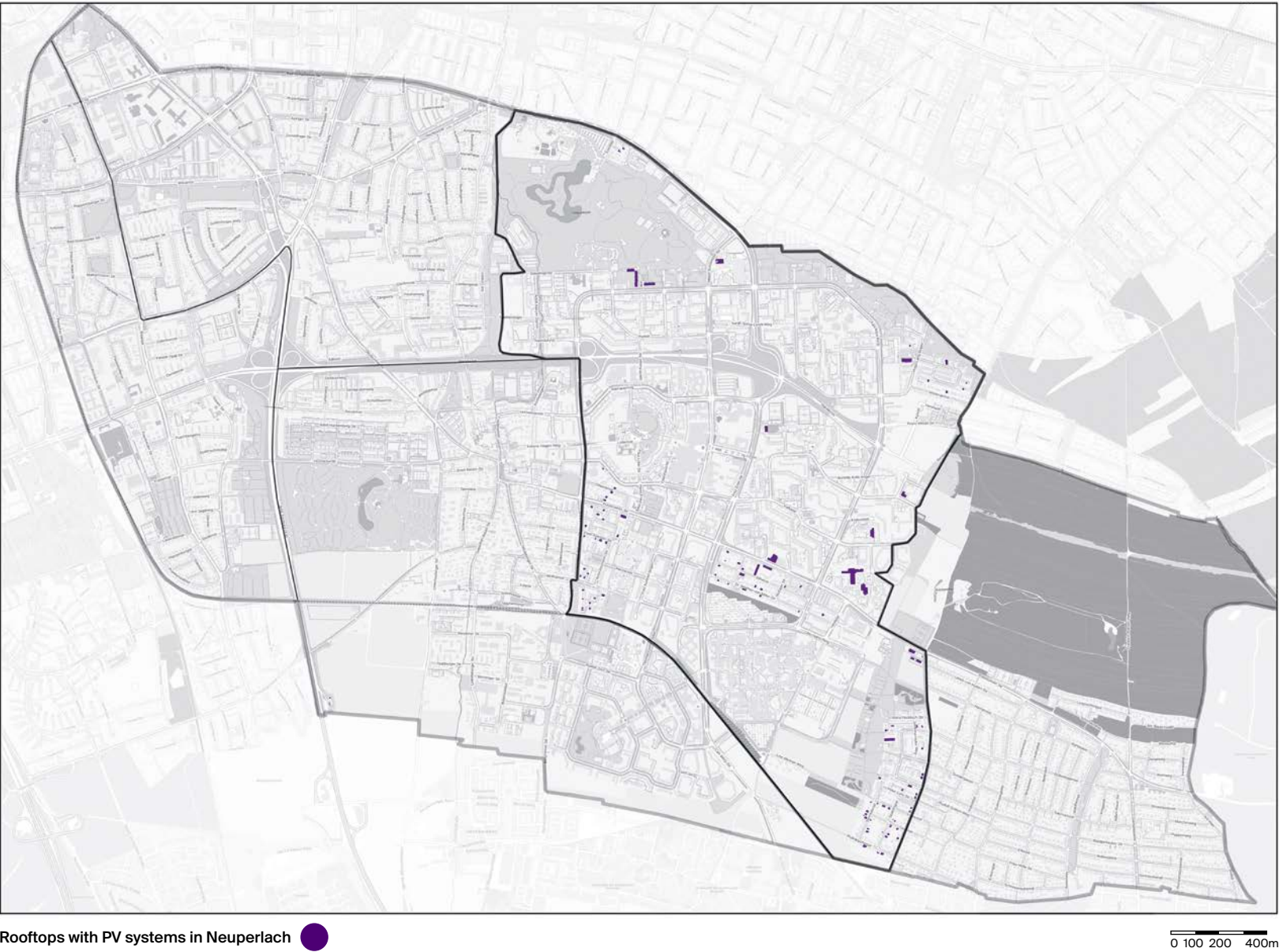
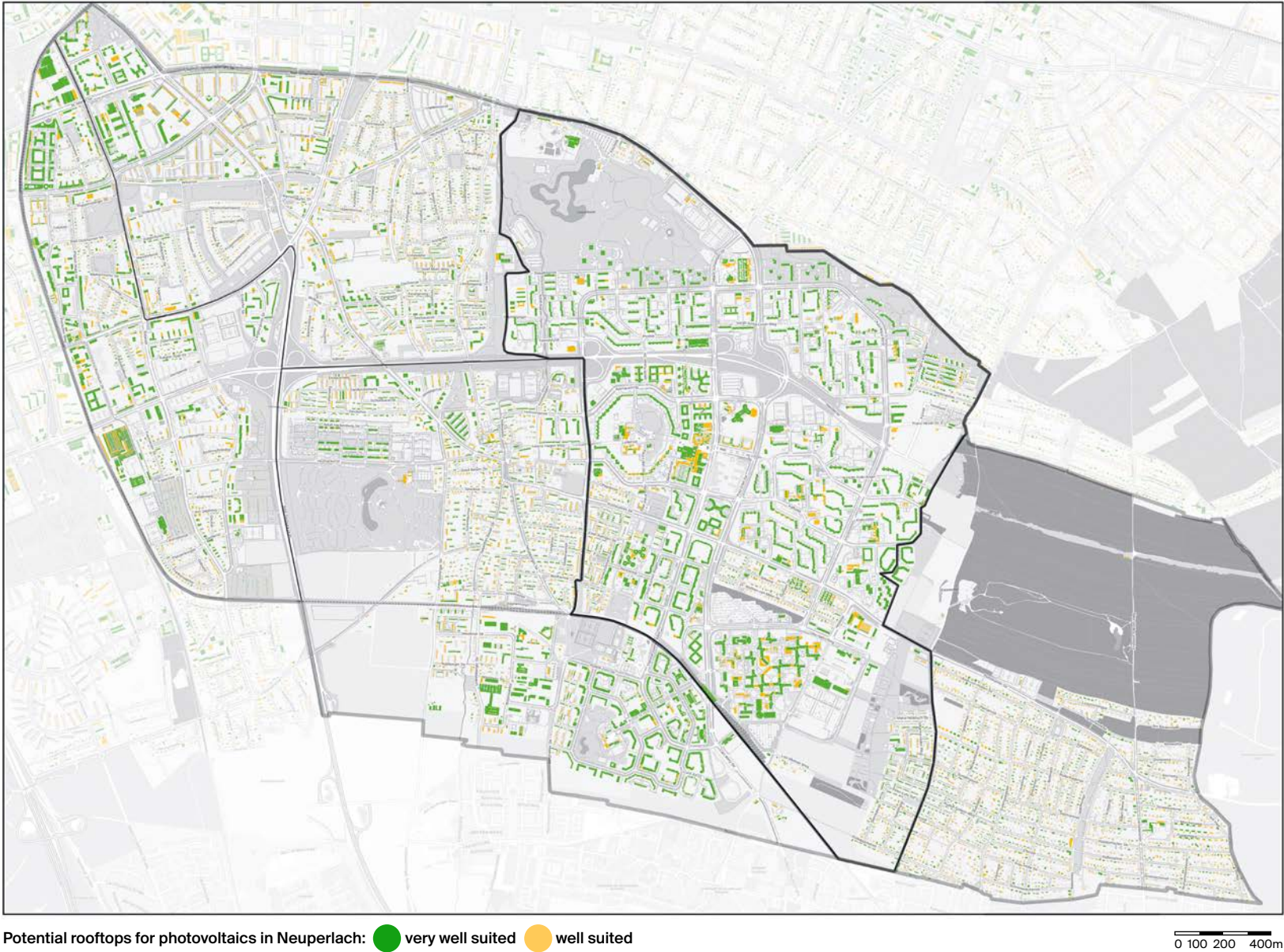
The solar-generated electricity produced and consumed in energy communities reduces energy costs and energy dependency for their members. The energy community fosters cohesion and actively contributes to climate protection. Everyone wins: the citizens, local businesses and, of course, our climate.

The open name of our community, “Energiegemeinschaften München” will allow other initiatives and neighbourhoods in Munich to join us and to use the infrastructure that we have developed. This saves money, bundles resources and simplifies replication and cooperation.

1 Analysis of Potential and Current Situations

To evaluate the prospects for starting an energy community, it is necessary to determine the solar potential of the area in question. Where available, solar potential maps from local geoportals can help: the maps use colour-coding to indicate the degree of solar irradiation on rooftops. However, influencing factors such as shading, structural issues and environmental factors will require further analysis. It is important to get in contact with experts, and reviewing studies or similar projects from the same region can help in the assessment.

tors such as shading, structural issues and environmental factors will require further analysis. It is important to get in contact with experts, and reviewing studies or similar projects from the same region can help in the assessment.



2 Stakeholder Analysis and Outreach

A stakeholder analysis helps to identify relevant groups and individuals who may have an interest in or impact on the creation of the community. In addition, it is necessary to gather data and information about demographics, economic conditions

and energy usage. Engaging with local cooperatives offers insights into operational challenges, while public events help assess community interest and concerns.

3 Co-Creative Development of the Energy Community

An energy community requires active participation. Engaging citizens and stakeholders fosters a deep sense of ownership and long-term commitment, ensuring that the community reflects local needs and is driven by those it serves.

In this NEB Action, a series of workshops was developed and tested across various themes. The workshop series covers the entire process from the initial idea to the founding of the energy community; it begins with an overarching view of the subject and gradually focuses on more detailed and specific topics.

Workshop 1

Subject Areas and Timeline

This provides participants with a structured overview of the project, breaking down its complexity into subject areas and tasks.

Workshop 2

Foundation, Strategy and Timeline

This outlines the steps for establishing an energy community and provides a roadmap while clarifying tasks and assigning responsibilities. Milestone cards defining key stages and resource cards representing necessary inputs help to visualise needed resources, ensure feasibility and refine milestones.

Workshop 3

Communication

Led by creative professionals, this series of three workshops develops a unified communication strategy and structures and prioritises content to ensure clear and consistent messaging.

Workshop 4

Governance Structure

This establishes a legal and organizational framework and defines governance structures within the energy community along with assigned tasks and responsibilities.

Workshop 5

Business Model

This participatory workshop uses the Business Model Canvas (Osterwalder & Pigneur, 2011) to map out key components of the community's business model. Background information on the business models we developed is linked at the end of the article.

Workshop 6

Financial Model

This session focuses on developing and refining financial planning. Participants begin by identifying and categorising potential revenue streams and costs. They then map out the financial framework. Follow-up sessions refine the financial model as new information emerges.

Workshop 7

Statutes and Rules of Procedure

This multi-session workshop develops and refines the legally binding documents essential for the governance and operation of the energy community. Participants review draft statutes or rules of procedure and adjust them as needed in real time

4 Implementation and Growth

With the foundational elements in place, the energy community can move on to implementation. This phase starts with the foundation meeting in which founding documents are approved and signed, key governing bodies are elected and membership in an audit association is decided. Before it can be officially registered, a cooperative must pass

an audit by a cooperative audit association. Choosing a suitable association should be a joint decision guided by defined criteria. To ensure that major investments such as PV systems are protected, their purchase as well as full operations should be postponed until after the community is registered.

5 Attract New Members

Is the cooperative inclusive and gender-sensitive in its statutes and approach? To overcome barriers for membership, adapt places, times, language, framework conditions for mem-

ber recruitment. Establish relations with local media, adapt professional marketing methods, create a strong local presence.



Conversation starters help to establish connections with potential members at events. A practical example of this is a portable solar bag, which demonstrates on-site solar energy generation. The SolarCoffee and SolarIce events, in which the bag charges

a battery to power a coffee machine or cooler, are particularly effective. Sharing coffee or ice cream creates a relaxed setting to engage with the community and introduce the energy community concept.

Be Part of the Regenerative Energy Revolution

This guide could be just the beginning: Energy communities unite local stakeholders across different levels to create a sustainable, collaborative, and future-proof energy supply. By integrating collectively managed renewable energy into urban spaces, we not only regenerate our energy sources but also strengthen social structures, empowering individuals to participate actively in the energy transition. This transdisciplinary,

NEB-based approach connects the scientific community, municipal actors and neighbourhoods, fostering new ways of collaboration that are both economically and socially sustainable. Now is the time to take action and build energy cooperatives that not only contribute to a climate-neutral future but also create more resilient, inclusive and empowered communities.



NEB-Demonstrator

The result of this process in NEBourhoods was the establishment of the Energiegemeinschaften München eG, founded as a cooperative. The cooperative legal structure was chosen because it promotes collaboration, shared responsibilities, and democratic decision-making, with each member having an equal vote. The pluralised name, Energiegemeinschaften München, reflects an interest in collaboration among multiple initiatives, which already include the Energiegemeinschaft München-Neuperlach and the Academic Energy Cooperative at TUM and is now replicated as Energiegemeinschaften München-Harthof. Our model facilitates active participation by allowing citizens to join existing energy projects or develop their initiatives in other neighbourhoods. It draws on the community's shared resources while building a distinct identity for each project.



Join and invest in Energiegemeinschaften München eG – We let the sunshine in! You can become a member, actively participate or invest by following these steps:

1 Register

Visit our member portal online and enter your personal details: Scan the QR code to access the portal.



2 Fill out a form

After reviewing your data, we will send you a membership form to fill out.

3 Submit the form

Sign the membership form and return it to us via email, mail or in person.

4 Purchase shares

Transfer funds for your desired shares (€100 per share, up to a maximum of 50 shares).

Investment of Your Shares: Your shares will be invested in our local energy projects, such as PV systems.

Profit Participation: Each year, we distribute dividends to you based on our profits.

Energiegemeinschaften München eG is a community for the neighbourhood. If you are from the Munich area, you are already eligible to participate and invest. All households with a direct connection to the PV systems benefit from the locally generated electricity. All others share in the profits generated

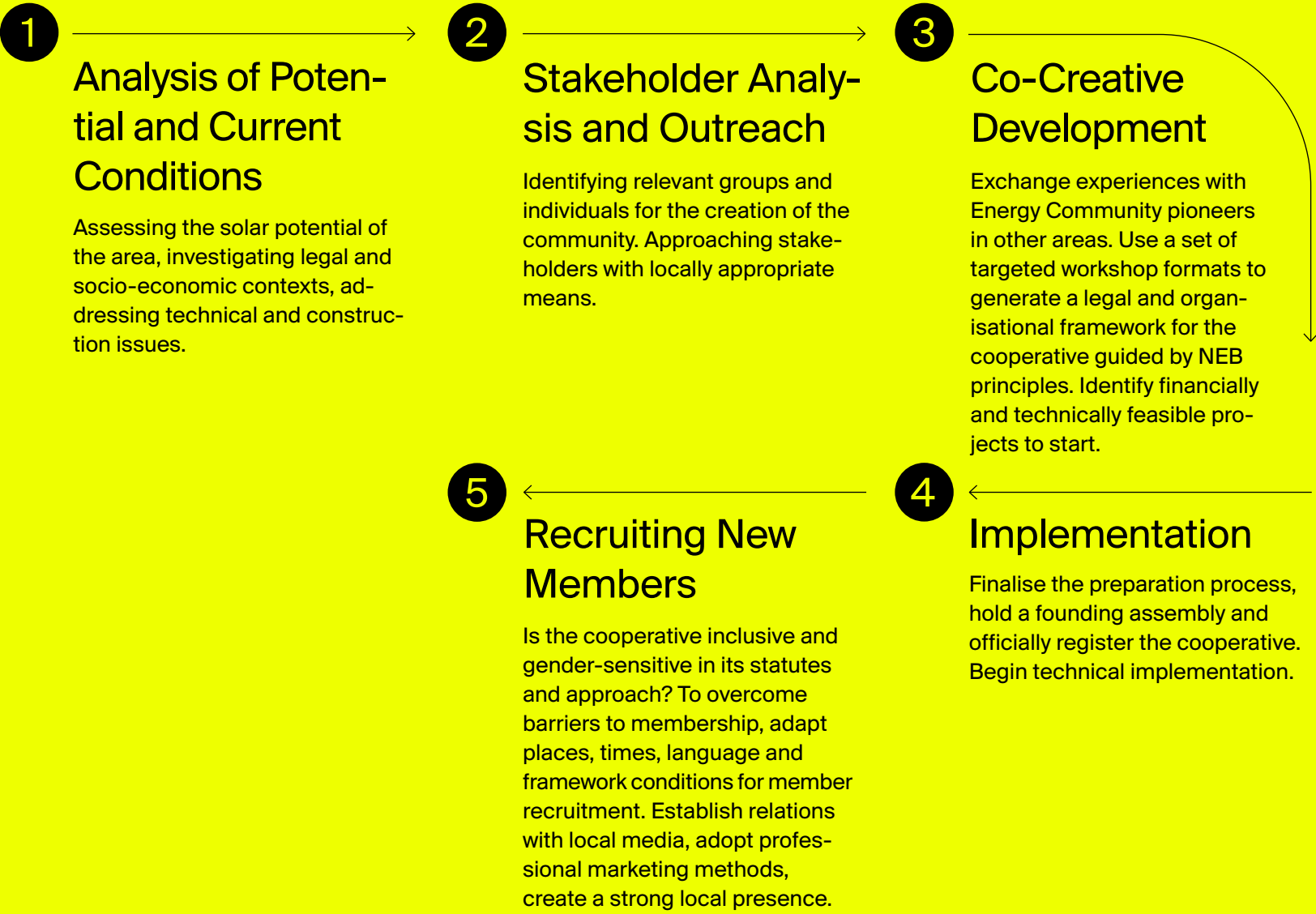
by the cooperative. New spaces are only developed in neighbourhoods with an active community. For efficient space management, each new system is planned taking local consumption into account to ensure that production is directly aligned with neighbourhood demand.

Pointers to Jump-Start Replication

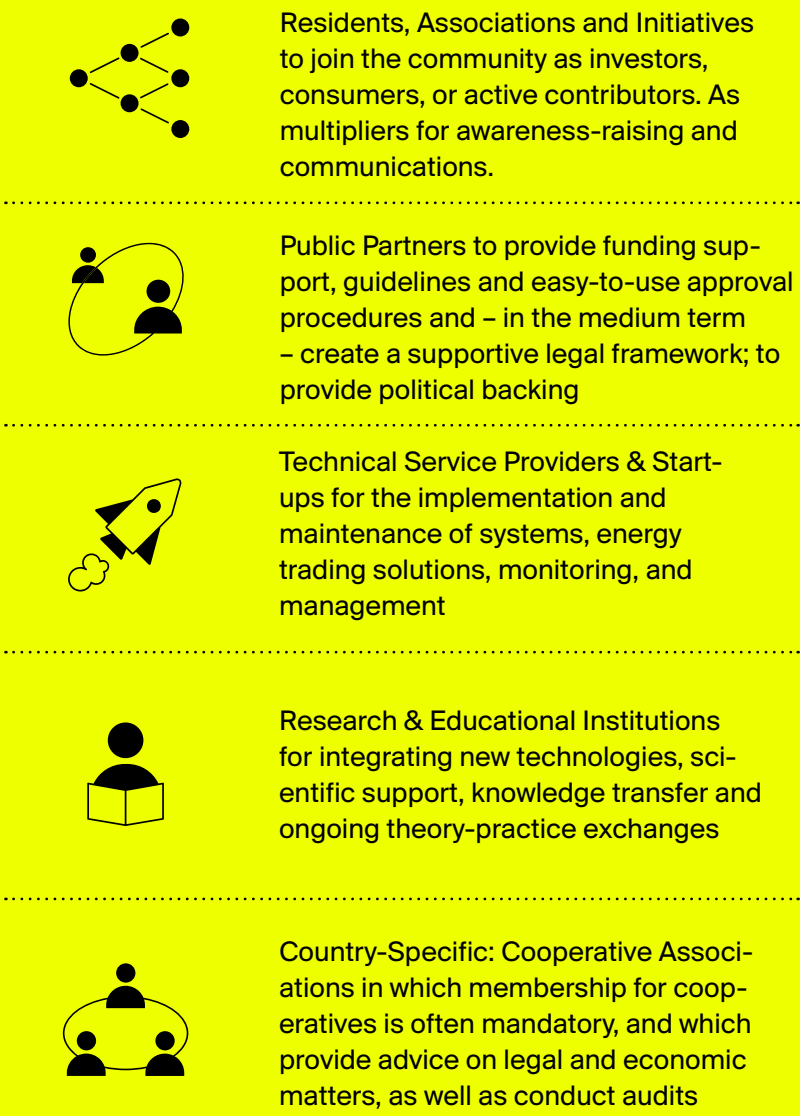
Together with the NEB Action team, residents of Neuperlach founded an energy community cooperative to install photovoltaic systems in the neighbourhood. Through the cooperative, people are becoming active contributors to the Green Deal while benefitting from locally produced renewable energy. The cooperative manages implementation, financing and management of the systems. The generated electricity is sold at lower rates than those of the local provider, earning profits that are distributed as dividends to the members. There are various ways to get involved: Some people can provide surfaces for solar installations, others prefer to give financial support – and still others have the time to take care of the installations or the organisation. Locally generated renewable energy is embedded in a framework that enables many people to become part of the cooperative, have their voices heard and benefit from the green transition.

Key Project Steps

The Circular Transformation Roadmap is based on three phases: Analysis, Programming, and Early Architectural Design and a series of subsequent steps:



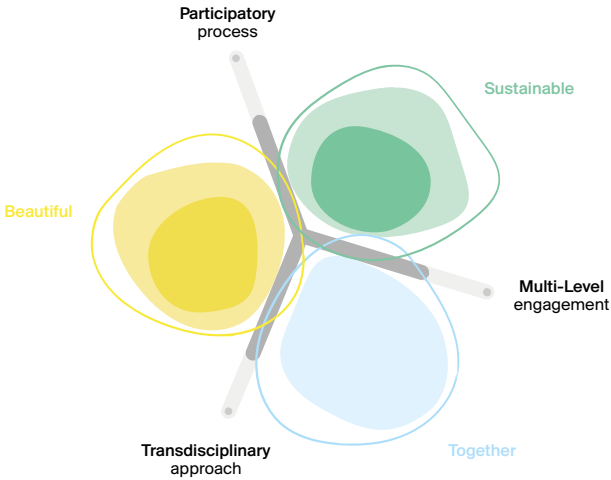
Key Stakeholders



Evaluation of Replicability



NEB Evaluation Energy Communities



“Renewable energy is more than merely a technological solution – it represents a societal transition. Energy communities link environmental responsibility with social justice and economic participation.”
Serena Keller

Related Links



Energy Community – Co-Creation and Implementation: Workshop Formats, Materials and Timetables



Website Energiegemeinschaften München eG

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Circular and Neighbourhood- Oriented Transformation of Office Buildings

NEB Action: Circular Neuperlach

Key words

circularity • office buildings • circular transformation • pre-design phase • economic and social values • common good • building transformation • culture of conversion

Partner

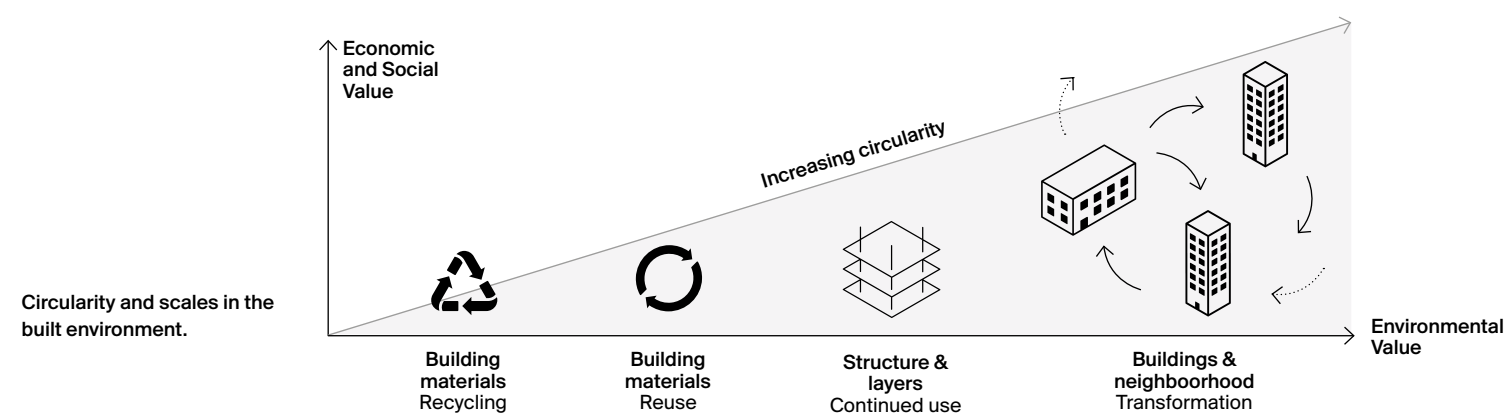
Chair of Energy Efficient and Sustainable Design and Building at the Technical University of Munich

A relic of classic modern urban planning, large mono-functional office buildings can be found in cities all over Europe. They are slowly starting to fall out of use and in many cases they are being torn down. But they actually have great potential to contribute to a neighbourhood-oriented and circular transformation.

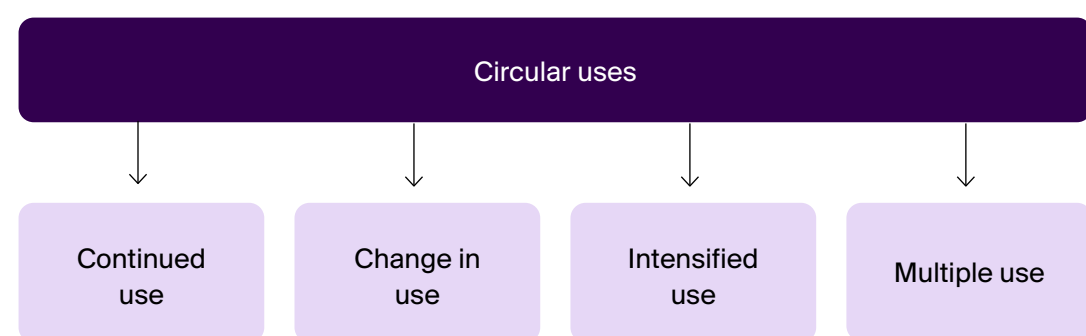
Programming: Exemplary method to match needs with the existing building.



The NEBourhoods Action Circular Neuperlach aims to transform these large single-use office buildings in a fundamentally sustainable, circular, and neighbourhood-oriented way. To identify new circular uses for existing buildings and to design their transformation in accordance with urban development for the common good, we developed a new methodology – the circular and neighbourhood-oriented transformation. This method brings together stakeholders from real estate, municipalities, planning, and civil society in the early pre-planning phases of the project.



Unifying framework of “circular uses” for the transformation of existing buildings developed in the action Circular Neuperlach.



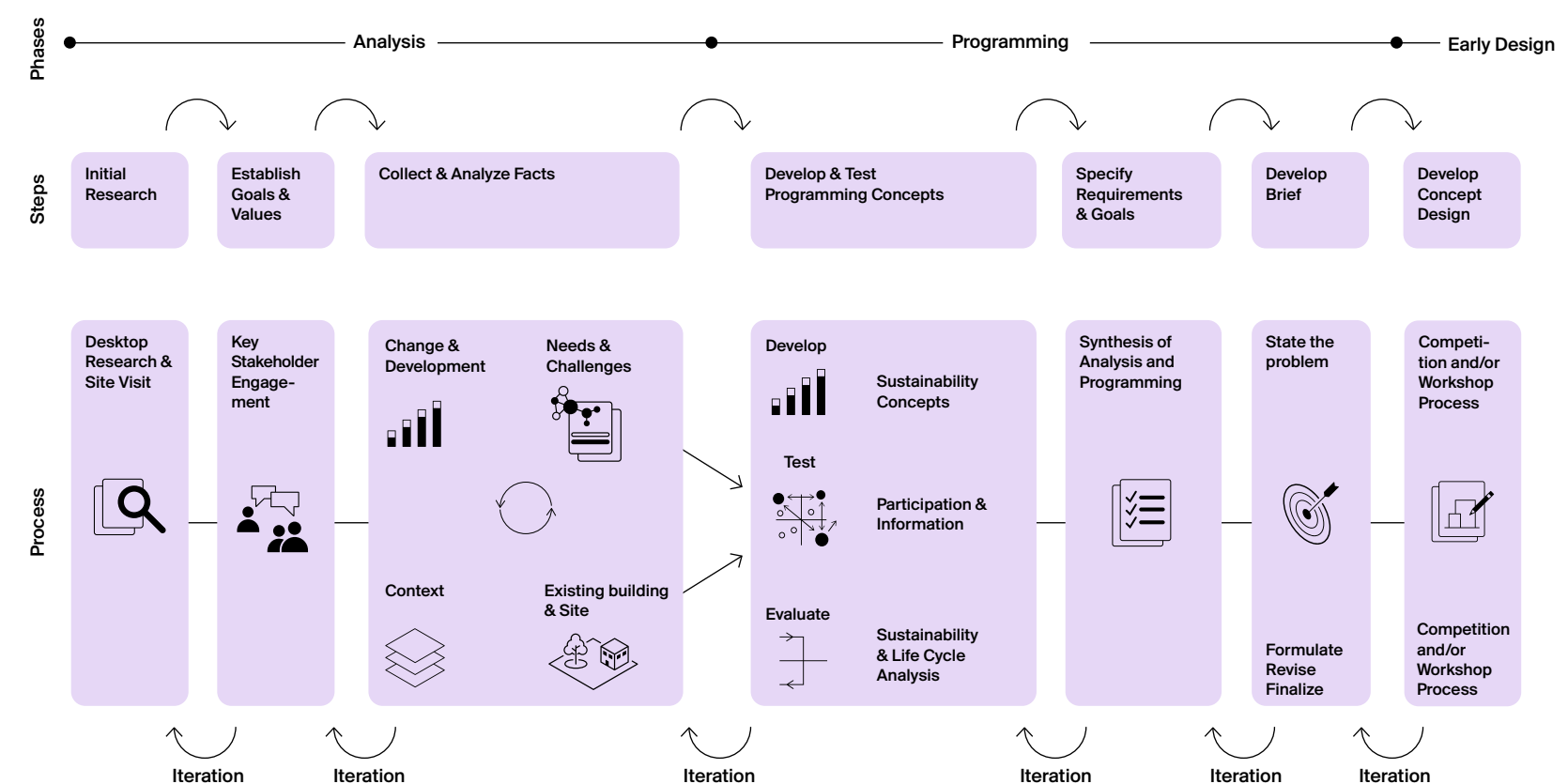
But how does such a process work, and how can the qualities and potentials of existing buildings be aligned with overarching developments, local context, and user and neighbourhood needs? With the “Circular Transformation Roadmap” we explain how this information can be used for the architectural programming of new uses and the design of building transformations. A unifying concept – “Circular Uses” – promotes the circular transformation: Circular Uses combine continued use, change in use, intensified use, and multiple use of buildings. Supported

by the newly developed analysis “Concept of Layers and Zones”, the “Circular Transformation Roadmap” shows how the transformation can connect the building with the neighbourhood.

The step-by-step descriptions of the Roadmap facilitate a transfer to other neighbourhoods and cities in Germany and Europe. The Roadmap is thus a prototype that can be adapted to specific contexts to advance transformation within planetary boundaries while considering human needs.

Roadmap Steps: Structure of the Process

The roadmap focuses on the early planning phases, as these can have a high impact on sustainable and resilient project development with relatively low environmental impact and economic resources. Analysis and programming form the basis of the process: involving all relevant stakeholders allows levers to be identified and utilised for the design. Throughout the various steps and workshops, project participants test suitable forms of collaboration and build mutual trust for the continued design process. The aim is to structure these phases in such a way that all the necessary information and all relevant parameters are gathered early for decision-making and to develop, test, and evaluate programming concepts to formulate a project brief for the subsequent design phases. The process is subdivided into three phases: “Analysis”, “Programming” and “Early Architectural Design”. Within the phases, individual steps are carried out and, depending on the specifics of the individual project, iterated as needed.



Methodological steps within the phases of a circular and neighbourhood-oriented transformation.

1 Analysis

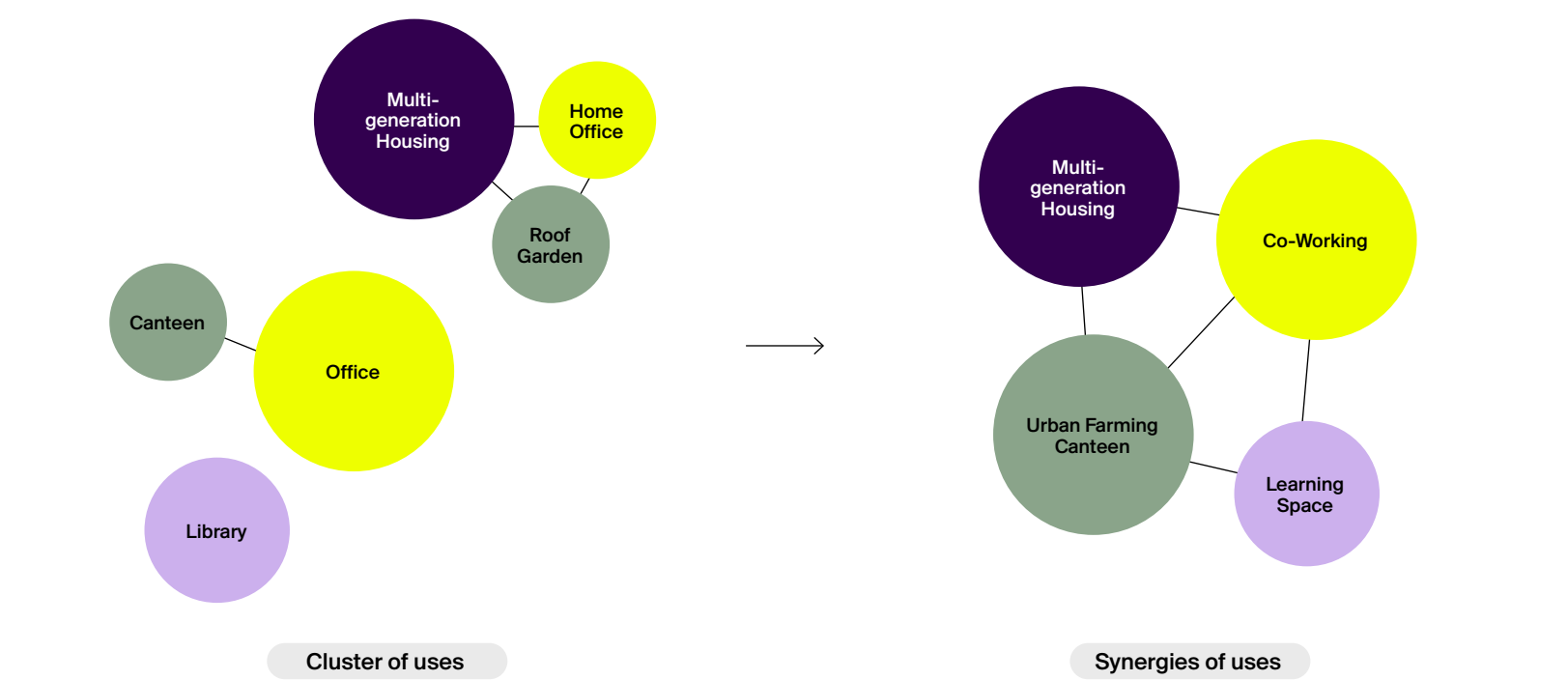
The analysis phase begins with an initial context analysis (Research Context) and involves the key project stakeholders in the discussion of common goals and values (Establish Goals & Values). Subsequently, all relevant project-relevant data are collected and thoroughly analysed (Collect & Analyse Facts). This step includes an analysis of the overarching Changes and Developments that influence urban and project developments (> megatrends), as well as an analysis of the specific context, i.e.,

the neighbourhood and the urban system. This information is then interrelated with the analysis of needs, which focuses on the current and future users of the building and particularly on the requirements of the local community, so-called neighbourhood needs. The final part of the collection and analysis of facts is the examination of the existing building, which includes, among other things, an analysis of building layers and zones, a detailed structural investigation, and a 3D model.

2 Programming

The Programming phase brings together the insights from the Analysis phase to create the foundation for the Early Architectural Design phase. The needs are integrated with the characteristics of the existing building through scenario-based programming (Develop & Test Programming Concepts). To capture the various influencing factors, we use a systemic approach in which different scenarios are compared and evaluated. The evaluation includes established sustainability assessment

methods, including life cycle analysis, life cycle costs, and social considerations. The input from various stakeholders is crucial to ensure that their interests are represented. Based on the chosen scenario and the specification of the requirements (Specify Requirements & Goals), a programming brief is formulated, iteratively revised and finalised (Develop Brief).



Programming: Exemplary method to identify synergies for multiple uses

3 Early Architectural Design

The programming brief serves as the foundation for the subsequent conceptual design (Develop Concept Design). In Germany, this phase represents the interface with conventional planning phases and procedures such as planning competitions or innovative collaborative processes (Kooperative Verfahren).

In our research, we have considered different planning processes, traditional urban design, and architectural competitions. In particular, collaborative processes are relevant for the transformation of existing buildings, as they enable information exchange and joint development of possible solutions.

Stakeholders

The “circular and neighborhood-oriented transformation” of existing buildings aims to promote cooperative approaches among the various stakeholders involved:

Owner / project developer / investor

Owner / project developer / investor as a central lever to transform specific privately owned existing buildings into circular and neighbourhood-oriented buildings.

Process designers and coordinators

Process designers and coordinators as an agile and independent institution to engage with various private and public actors on an equal footing in specific project developments, to mediate between actors and to shape design processes that break up and adapt classical, linear processes. The institution must be designed to be adaptable and responsive to the evolving needs of urban development, emphasizing a holistic and interdisciplinary approach.

City administration / municipality / urban planning department

City administration / municipality / urban planning department and policy-making as key functions to promote common-good-oriented and circular aspects of building transformations through regulations and approvals, and to actively encourage, enable, and support these aspects in concrete project developments.

Planning team: architects, structural engineers, civil engineers, building engineers, landscape architects, etc.

Planning team of architects, structural engineers, civil engineers, building engineers, landscape architects, etc. to provide information and assess the existing building’s qualities, potentials, and limitations from different disciplinary perspectives, and to develop designs for the transformation of the building.

Neighbourhood management and neighbourhood representatives, multipliers

Neighbourhood management and neighbourhood representatives, multipliers, civic organisations, and associations to anchor the process in context-specific, local knowledge

Citizens / residents / people of and in the neighbourhood


Citizens / residents / people of and in the neighbourhood as everyday experts regarding the neighbourhood and its needs and challenges

Potential operators: co-operatives, foundations, providers of social or cultural infrastructures

Potential operators such as co-operatives, foundations, providers of social or cultural infrastructures, etc. to develop, discuss, and weigh scenarios and provide practical implementations of the solution


Roadmap Implementation: Series of Workshops

Based on findings from co-creative research with partners from the administration, real estate, planning, and civil society, the “Circular Transformation Roadmap” offers several workshops for each phase. These formats are intended as prototypes for a new planning practice in the spirit of the New European Bauhaus.



Workshop “Values & Goals”

Phase	Analysis
Step	Establish goals and values
Basis	Non-disclosure agreement (NDA); mission statement and institutional values and goals of the players
Participants	Owner / project developer / investor; process designers and coordinators
Content	Align values; establish goals; clarify roles, expertise, and capacities; discuss temporal and organisational conditions
Guiding Question	What does the client / project team want to achieve and why?
Outcome	Agreement on the scope, process steps, and timeline of the project



Workshop “Test Scenarios”

Phase	Programming
Step	Test programming concepts
Basis	Developed scenarios and neighbourhood feedback from previous workshops
Participants	Owner / project developer / investor; potential operators; neighbourhood representatives; experts in pioneering uses; citizens / residents / people from or in the neighbourhood; process designers and coordinators
Content	Discuss use combinations with experts and potential (local) operators for the respective uses; test different uses, for example through pioneering new uses or opening the building to the public
Guiding Question	What will actually work in practice?
Outcome	Insights into possible implementation of uses and their synergistic composition as well as their potential for acceptance in the neighbourhood

Current Status / Perspective

Recommendations such as stronger interdisciplinary collaboration, regulatory adjustments and funding measures are summarised in the policy recommendations of the Circular Transformation Roadmap. These findings are being incorporated into local political council resolutions.

A key finding is that an agile institution is needed to engage with various private and public actors on an equal footing in specific project developments. In response, we have established the Urban Transformation Office (UTO), which has played a crucial role in implementing our methodology into specific project developments during the early planning phases. We intend to continue the work of the UTO institution.

Related Links

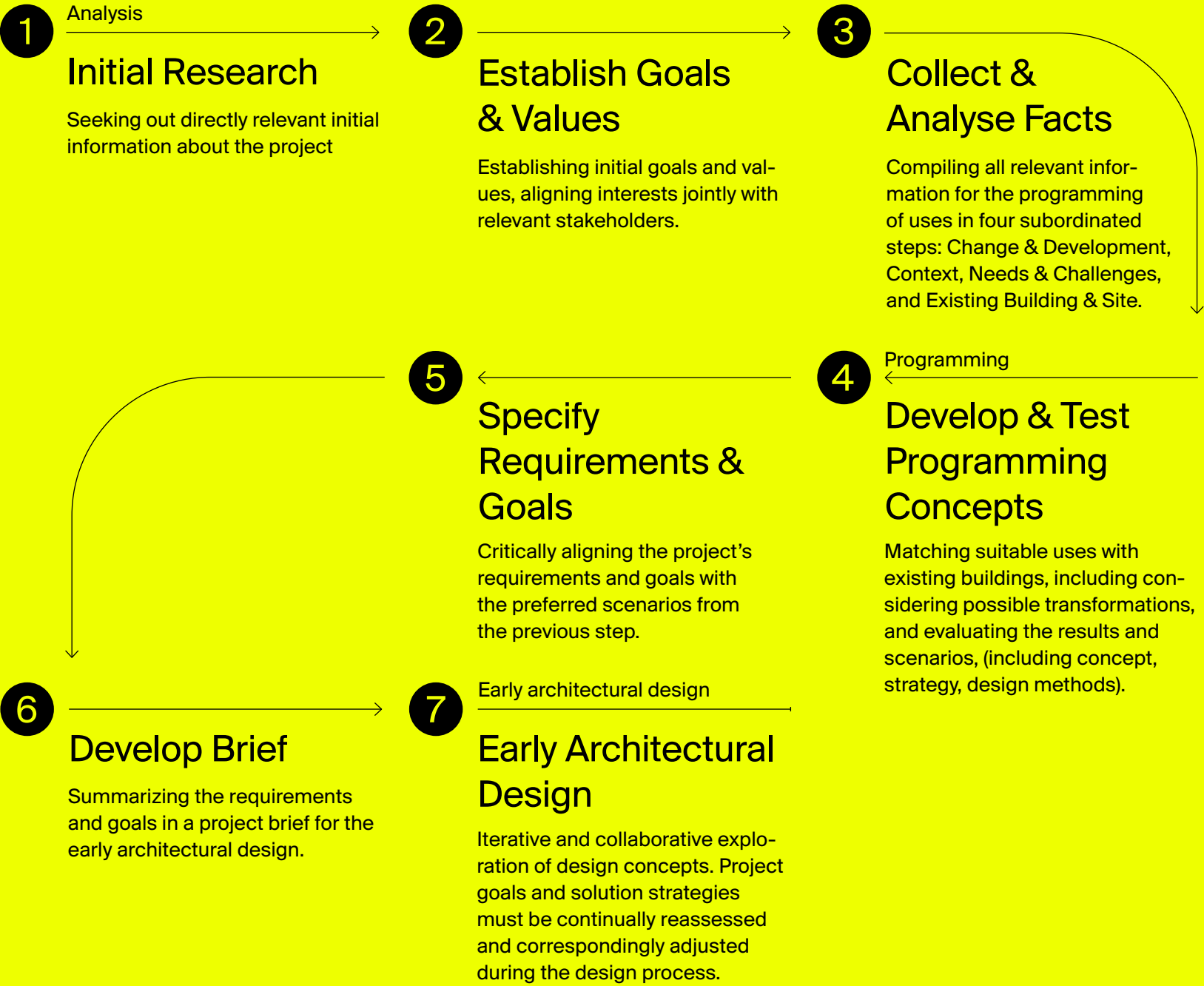
Download the Circular Transformation Roadmap (download link on the following pages). The Circular Transformation Roadmap explains the three phases of the new methodology – analysis, programming and early architectural design – as well as the individual steps of these phases. In addition, a series of workshops and the actors necessary for implementing the approach are described. The Roadmap also provides policy recommendations.

Pointers to Jump-Start Replication

Circular Neuperlach aims to transform non-residential buildings in Neuperlach in a circular and neighbourhood-oriented way. To identify new uses for existing buildings and to design their transformation, the potential and qualities of existing buildings are aligned with overarching developments, local context and the needs of the neighbourhood. The “Circular Transformation Roadmap” acts as a guide through the process: a series of workshops, supplemented by policy recommendations, helps to implement the approach and make it transferable to other neighbourhoods and cities in Germany and Europe. The approach brings together stakeholders from real estate, municipalities, planning, and civil society in its early planning phases.

Key Project Steps

The Circular Transformation Roadmap is based on three phases: Analysis, Programming, and Early Architectural Design, as well as a series of subsequent steps:



Key Stakeholders



Evaluation of Replicability

Potential

New Transformation Paths

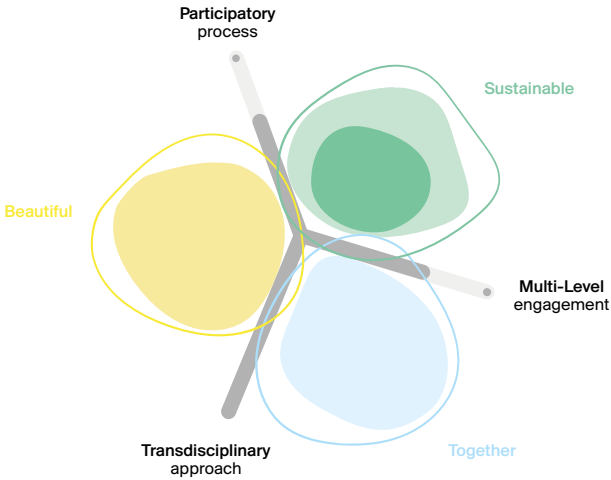
The methodology of a “circular and neighbourhood-oriented transformation” establishes new planning processes and practices to transform existing building structures to improve quality of living while respecting planetary boundaries. As model projects, these building activations demonstrate new transformation paths and provide arguments for the adaptation of regulations and funding mechanisms from the local to the EU level.

Challenge

Goal-Oriented Frameworks

A shift towards more socially and environmentally sustainable economies requires that key stakeholders align their individual goals at an early stage with an eye toward the common good. This alignment is a key component of the roadmap. Adjustments in regulations and funding opportunities can create additional motivations and incentives but can run up against political hurdles.

NEB Evaluation Circular Neuperlach



“The transformation of the built environment depends especially on courage, willingness and on the commitment to take new paths. But there are mental barriers and entrenched prejudices with respect to ‘the others’, especially in the building development sector. The “Circular Transformation Roadmap” brings decision-makers together in the early planning phases of a project and promotes the building of trust and holding all parties more accountable based on their values. In this way, projects are developed in accordance with the NEB working principles in that they are not only oriented towards the common good, promoting the well-being of the people in the neighbourhood, but also circular, seeking to find solutions within planetary boundaries.”
Carsten Schade and Johannes Staudt

Related Links



Roadmap for Circular and Neighbourhood-Oriented Transformation

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Transforming Food Production and Greening in the Neighbourhood

NEB Action: Growing a Tasty Neuperlach

Key Words

edible city • healthy nutrition • local food
production • green city • Education for
Sustainable Development (ESD) • green
transformation

Partner

Green City e. V., Münchner Ernährungsrat e. V.,
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Together for a Sustainable Food Transition

With an existing well-connected and highly successful community garden and dedicated initiatives, Neuperlach had the perfect foundation to turn these potentials into reality. Over two years, the NEB Action Growing a Tasty Neuperlach worked on connecting ongoing efforts and bringing sustainable food initiatives and greening to life for even more people in the neighbourhood. Led by Green City e. V. in partnership with the Munich Sustainability Initiative and the Munich Nutrition Advisory Association, the NEB Action established eight urban gardening communities, a mobile kitchen and multifunctional hexagonal raised beds.

With the principles of the New European Bauhaus at its heart, NEBourhoods built upon a strong collaboration with local stakeholders. The NEB Action Growing a Tasty Neuperlach offered

hands-on workshops, coaching, and manuals on developing and maintaining urban gardens: A mobile kitchen became the centrepiece, supporting neighbourhood dinners and cooking workshops while inspiring systemic change through consultations for school canteens. As a result, Neuperlach is now home to dynamic spaces for learning about sustainable food and greening, fostering both local pride and ecological resilience.

With this article, we aim to share the experiences and insights gained throughout the project, providing inspiration and guidance for others who wish to embark on similar transformative journeys.

Reimagining Local Food Systems Through Urban Gardening

Food systems are responsible for nearly 30% of global greenhouse gas emissions, driving deforestation, soil degradation and biodiversity loss. Urban areas, too, are deeply connected to these challenges, making local food chains a crucial focus for sustainable transformation. Urban gardening offers a practical way to rethink these systems by reducing food miles, encouraging sustainable practices, and fostering community resilience. It improves soil health, mitigates urban heat islands, and creates green spaces that strengthen biodiversity and social bonds.

Food also holds great potential across all NEB transformation themes: shared meals build a sense of belonging, sustainable food production reconnects people with nature, and addressing food security prioritises underserved communities. In this way, urban gardening transforms not only spaces but also relationships, creating vibrant and inclusive communities where everyone can contribute to sustainable change.





Setting the Stage for Success

Tasty Neuperlach began with various pop-up formats, such as neighbourhood dinners and planting workshops. These low-threshold activities offered an accessible entry point for a wide range of groups and helped to raise awareness of the project within the community. However, the execution of these formats highlighted the importance of thorough preparation and the creation of tailored, area-specific offerings. Alongside hosting regular events, the focus was particularly on building trust with local networks by establishing structures and engaging key stakeholders, enablers, and multipliers from the outset, ensuring a lasting impact.

Lessons Learned

Build your Local Network

Is it your aim to support bottom-up initiatives and at the same time work strategically for the growth of edible neighbourhoods? Before you start, make sure that well-established stakeholders from the area are involved in the application, project management, design, and implementation. Start with a detailed mapping of the target area – look for cooperation partners who are already active or interested (local associations and initiatives, schools, companies, housing associations, etc.). Establish contact with the relevant members of the city or district council. If you work for the municipality, enter into local partnerships. If you come from civil society, familiarise yourself well with the structures within the administration that deal with green and open spaces, sustainable food, education, health and social services and property management in the district.

Lessons Learned

Build Trust by Collaboration

It requires time and effort to get to know the partners and their needs. Look for project goals that are mutually beneficial, but especially so for your local partners – this can be empowerment through financial support and assistance in building innovative offerings which are attractive and crucial for a wide range of people in the neighbourhood.

Lessons Learned

Assess the Feasibility and Regulatory Framework

Mandatory permits and authorisations often take significant time – especially when dealing with building regulations in public spaces. Start the application process as early as possible. If working in public spaces, ensure that the relevant authorities and landowners are committed and have granted their approval for the planned activities.

The Power of Co-Creation

On this strong foundation, Tasty Neuperlach demonstrated the transformative power of co-creative approaches. By involving stakeholders from diverse disciplines – architecture, biodiversity, design, gardening and craftsmanship – the project developed innovative, functional, affordable, sustainable, and aesthetically pleasing solutions that ensured equitable experiences and therefore resonated deeply within the neighbourhood.

Lessons Learned

Start with a Networking Workshop

Invite those identified by your mapping as interested, possibly interested or supportive. Honour the pioneers who are already active and let them present their successes: this will demonstrate feasibility and encourage others to follow. Organise concrete opportunities for sharing input with relevant information, e.g. good-practice projects from other quarters or cities, key success factors and how to overcome possible challenges or obstacles. Plan short presentations and enough time for creative and lively participation and to address questions and needs and promote the exchange of ideas. Include practical elements like producing your own herbal salt or cooking with the mobile kitchen to encourage activity, create a positive memento to take home and to celebrate success.

Lessons Learned

Bring Stakeholders into Contact with Local Supporters

Build connections to responsible actors from local politics, the administration or others such as the neighbourhood management or local garden associations: participants may ask for support or advice to find funding or a sponsor – especially for the transition period after the project ends.

Lessons Learned

Promote Constant Internal and External Communication

A crucial element of the NEB Action Tasty Neuperlach was continuous communication and outreach to promote the newly developed projects, concepts, and approaches. Guided tours by foot or bike to the newly created urban gardens, the development of a garden and food map, and a final networking workshop help to present all outcomes and share available resources, ensuring that ideas and practices continue to grow and flourish.



Bringing Sustainable Food Systems to Life

Every co-creative project is as unique as its members. This diversity was evident during Creating NEBourhoods Together, resulting in three distinct but strongly interconnected outcomes for the NEB Action – each focused on making the transition to sustainable food systems more tangible and spreading the vision further.

NEB-Demonstrator

Hexagonal, Multifunctional NEBourhoods Raised Beds

To address the needs of the community, three creative professionals participating in the NEBourhoods project designed hexagonal, multifunctional raised beds that form a cohesive garden landscape. This design emphasizes simplicity, sustainability, functionality, and inclusivity.

The concept is built around easy-to-use tools, the use of recycled wood, and an Ikea-style step-by-step assembly manual. The raised beds incorporate various features, including barrier-free access, seating with integrated storage, watering systems, and shading elements, creating a versatile and accessible outdoor space for

all. As part of the process, instructions on how to fill in and plant the beds in the urban environment have also been published.

“What I loved most during the workshop to build the raised beds was the experience of working together to create something. I hadn’t realised before that I could do something like this, and it showed me that I’m capable of doing it on my own.” Pelagia Pajonk, Frauentreff Neuperlach



NEB-Demonstrator

Mobile Outdoor Kitchen

The mobile kitchen serves as a magnet for people and sparks curiosity. Food is a universal connector, inviting conversation and creating opportunities for exchange

and engagement. The goal is for the kitchen to serve as a mobile space where community-building is seamlessly integrated with sustainable food preparation. Positioned in urban gardens and open spaces, the kitchen allows for the processing of harvests and provides a venue for communal celebration.

“We learned that you have to leave familiar routines to experience the true magic of co-creation.”

Jörg Sellerbeck, concept designer und gustatory scenographer

NEB-Demonstrator

The NEBourfoods Manual

The manual features a range of recipes and other content designed to reflect the unique character of the neighborhood, encouraging residents to explore their local area and discover edible plants nearby. Cooking in unusual locations turns them into feeding spots and causes them

to take on a new meaning. In addition to recipes, the manual includes ideas and suggestions for bringing people together, fostering a sense of community, and diving into the origins and flavors of ingredients and meals. As residents gather around fresh fruits and vegetables from

community gardens, they not only enjoy delicious food but also nourish the cycle of sustainable relationships in the neighbourhood. It's an invitation to connect, add to, engage, and share in culinary exploration-creating NEBourfoods together!



Looking Ahead:
Expanding the Concept of an Edible City

Tasty Neuperlach has shown that the journey toward a sustainable food future begins with local actions and the power of community-driven solutions. By transforming ideas into tangible spaces and practices, the project inspired participation and fostered a sense of belonging. As we look ahead, the challenge lies in amplifying this impact by addressing systemic changes – rethinking institutional food systems and advocating for policy integration that supports local food initiatives – while also focusing on the design and development of green spaces. These spaces must truly meet the needs of their communities, stimulate genuine diversity for people, animals, and plants alike, and contribute to healthier and more sustainable nutrition systems. Together, these efforts will create the foundation for a holistic transformation toward a resilient and edible city.



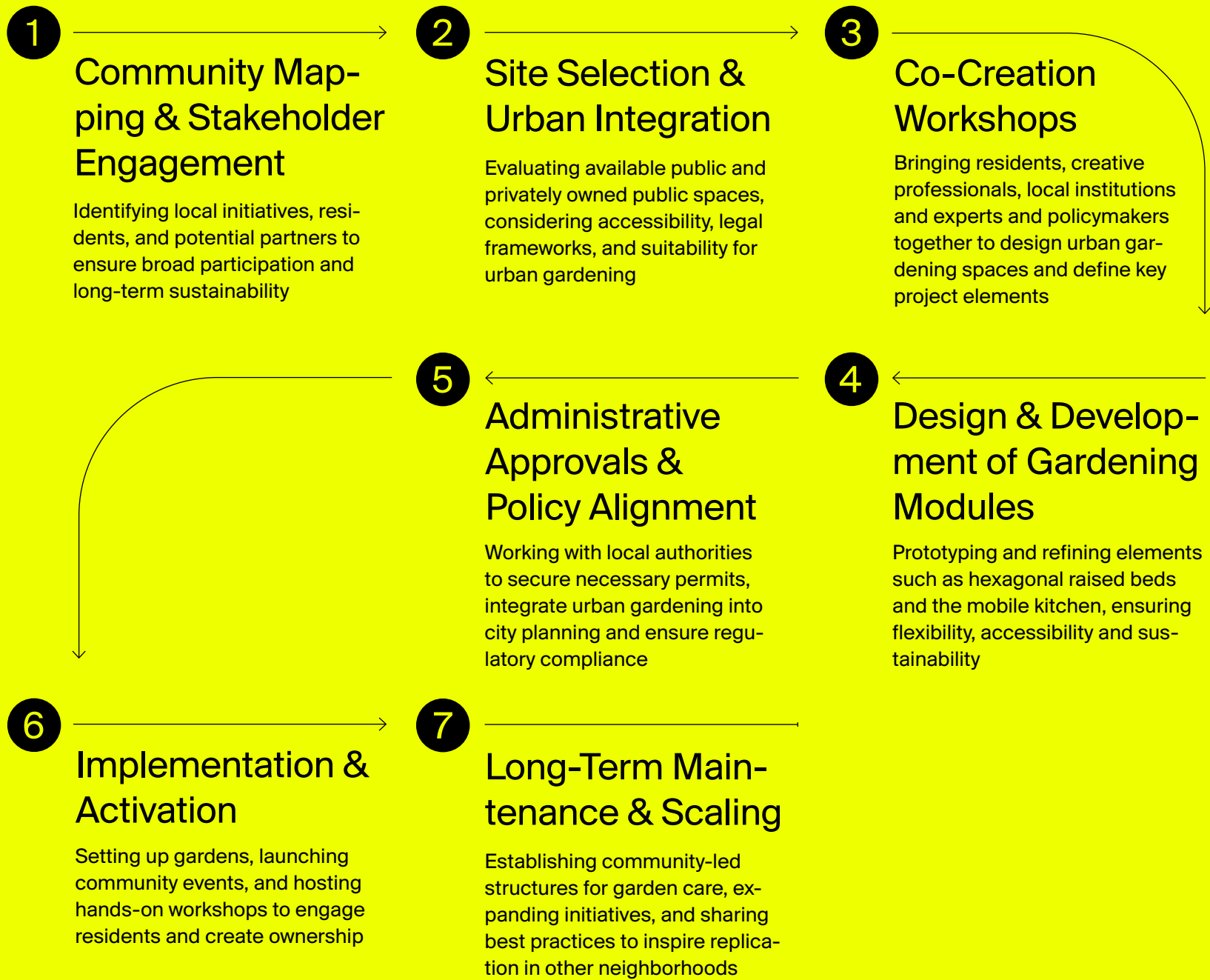
Much work remains, and understanding how the established initiatives evolve is essential. By building on the momentum that has been generated, we can empower more communities to envision and create their own sustainable futures. The spirit of co-creation, collaboration, and shared purpose will remain the driving force behind these efforts, making the transition to a sustainable, edible city not only a necessity but a shared achievement.

Pointers to Jump-Start Replication

Growing a Tasty Neuperlach reimagines urban food production by transforming public spaces into thriving hubs for gardening, cooking, and community engagement. Through co-creative collaboration with local stakeholders, the project established eight urban gardening communities, a mobile kitchen and innovative hexagonal raised beds – all designed to foster sustainability and social cohesion. Workshops, neighbourhood dinners, and interactive events brought people together, promoting hands-on learning about sustainable food systems. By integrating food, greening, and community, Tasty Neuperlach has paved the way for a resilient and edible city.

Key Project Steps

Creating Community Gardens Together



Key Stakeholders

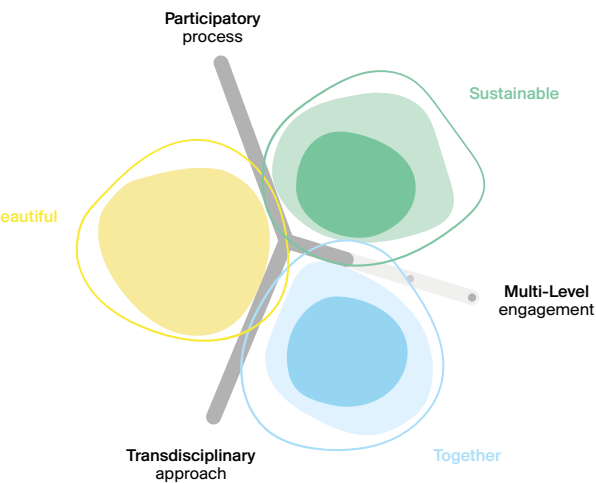


Evaluation of Replicability

Potential
Low-Threshold Replication and Community Engagement
The concept is highly adaptable due to its simple, low-maintenance structures and its focus on self-organisation. An IKEA-style manual and hands-on workshops make it easy for other neighbourhoods to replicate. By integrating urban gardening into planning efforts and involving local stakeholders, cities can use this model to promote sustainable food systems with little upfront investment.

Challenge
Lack of Clear Regulatory Frameworks for Initial Execution of New Solutions
Growing a Tasty Neuperlach is designed to be community-driven. Requirements for its propagation are access to private and public spaces, a supportive framework from the public sector and private owners who are open to co-design. Another ingredient for success is cross-innovation.

NEB Evaluation Growing a Tasty Neuperlach



“Tasty Neuperlach embodies the NEB principles of sustainability, beauty, and inclusivity by transforming urban spaces into vibrant hubs for food and community. Through co-creation with local residents, artists, and sustainability experts, we developed multifunctional gardens and shared food spaces that are both aesthetically inviting and socially inclusive. The project demonstrated how collaborative design fosters a sense of belonging while making sustainable food systems tangible and accessible to all.”
Magdalena Engl

Related Links

NEBourhoods Modules for Raised Bed Gardens

NEBourfoods: Recipes and More for the Mobile Outdoor Kitchen

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From Closing the Circle to Co-Responsibility and the NEB Movement

Closing the Circle

From the very first, the idea of the NEB brought forward by Ursula von der Leyen has been inspiring. The discussions, dialogues, and initiatives that followed in 2021 were not without critical reflections – nevertheless, the NEB initiative became a focal point for many.

This was no different in Munich. The University of Technology, the City of Munich, UnternehmerTUM and soon others including the University of Applied Sciences joined forces with one common vision: realising one of the first NEB Lighthouses in Munich. The Horizon Europe funding call set high goals while keeping the pathway to its implementation wide open:

- “The projects should have a clearly expected transformational impact both on the built environment and on how people live and interact in that environment. The pilots will fully embrace the mission objectives and NEB principles, acting as “lighthouse demonstrators”, serving as test-beds for the implementation of Horizon Europe mission objectives and innovative solutions.
- They should deliver, by the end of the project, ‘tangible’ and replicable results, leading to benefits in the long-term.
- The grants leading to the design and deployment of the initial implementation phase are meant to catalyse substantial additional investments ... to ensure the implementation of the full-scale project after the design phase.
- The projects should have a clear demonstrative effect in relation to the operationalisation of the triangle of sustainability, inclusion and aesthetics, serving as reference for the broader implementation of the NEB initiative, ...”

The partnership set out to apply the approach of the NEB to the transformation of Munich-Neuperlach into an “urban innovation landscape” by Creating NEBourhoods Together. Looking back, our “NEB mission for Neuperlach” was a kind of “mission impossible” (but isn’t this the core idea of EU missions?). With only two

years for implementation, we intended to reach out to a district encompassing more than 70,000 people and an area of 1,100 ha. This would have been crazy without the work that had already been done there: the Integrated Urban Regeneration Implementation Plan and the Integrated Urban Area Development Plan for Neuperlach (and its surroundings) (Integriertes Stadtentwicklungskonzept ISEK and Integriertes Handlungsraumkonzept IHRK). With committed partners from all over Munich’s innovation ecosystem, NGOs, start-ups and the City of Munich itself, we finally launched our endeavour. Partners proposed ten NEB actions, which had as their goals nature- and climate-adapted inclusive spaces, circularity and new energy patterns. They were embedded in the processes of co-creation, cross-innovation with artists and creative professionals, and entrepreneurship. This Replication Handbook summarises the actions in a nutshell and offers tips and suggestions on how they can be repeated or implemented even better elsewhere. It shows where to find the detailed reports (project deliverables) and opens up opportunities for direct communications with the NEBourhoods partners.

What cannot be emphasised enough is that, without the people, initiatives, associations and organisations of Neuperlach who trusted in our proposal, who embarked on the shared journey we offered, all our efforts would have been in vain. In the end, what is vital is the engagement and courage of people on the ground to create their environment when they are offered the opportunity to do so, to decide on what kind of collaboration they trust in and what kind of support or facilitating frameworks they ask for because they are needed. Hence, this is where we wish to thank all of them.

Co-Responsibility and the NEB Movement

Cultivating transformation as we tried to do in NEBourhoods is both an exhaustive and an exhausting process. It is exhaustive in that we have tried to delve into and explore the NEB framework as comprehensively as possible. And it is exhausting as well, because implementing the NEB values and principles requires networking, collaboration and encouragement with a high level of commitment, ambition and engagement.

But it is a hopeful exhaustion, because it must be said that, after everything, the conviction and enthusiasm for the potential of the NEB remains unbroken – for two reasons.

First, we have experienced the power of genuine transdisciplinary collaboration and co-creation. Both are time-consuming and often unfamiliar. In the context of urban experimentation, they require the openness to embrace new things and resilience in the face of failure. They require mindfulness and humility and persistence and courage at the same time. But if the people involved succeed in finding a common language and mutual trust, embracing collaboration and co-creation can form the foundation for deep transformation and strengthen communities, cities and societies from within.

Second, we are not alone on this path. The initiative’s strategy of achieving broad bottom-up activation of citizens in their daily lives and of professionals through many different building blocks such as the NEB Prizes, NEB Lighthouses, NEB Friends or even the NEB Lab seems to be bearing fruit. After four years, the

initiative already has 800 official partners and over 500 demonstration projects. Countless (local) stakeholders have been intensively involved in each of these projects.

It is this strength that will allow the shift towards a sustainable, NEB-led way of living and working to succeed. To fully realise this potential requires the continuous commitment of many. An inspiring and colourful variety of often tailor-made solutions has emerged in the projects. To ensure that this is not the end, but rather the starting point for far-reaching change, suitable framework conditions must be created at all political levels. As the EU pioneer Jean Monnet put it, “Nothing is possible without people, nothing is lasting without institutions”.¹

Breaking this down to the NEBourhoods level: how can we maintain the momentum that we have initiated or fostered? How can we create space in our urban planning for co-creation and cross-innovation in complex development tasks? Co-responsibility of various kinds has grown during implementation – how can we create institutional settings that enable these approaches to expand and mature? “People will embrace change when they see it”²: Our local experience as part of the NEB community confirms this NEB core conviction, and we want to build on it. What still lies ahead is an intensive dialogue with decision-makers for the creation of the necessary framework conditions needed to apply the NEB-based approach. We have just started this journey – let’s roll up our sleeves and get back to work.



¹ “Rien n’est possible sans les hommes, rien n’est durable sans les institutions.” (Mémoires 1976)

² NEB Compass, p. 3



ecological facades

energy communities

beautiful homes

SOLAR POWER

empowerment

inclusive spaces

culture places

edible city

urban biodiversity

climate resilience

diverse culture

youth spots

healthy places

mobility points

transformation

REPAIR WORKSHOP

CAFÉ

ECOLOPES

People

Even when a consortium comes together for a project, it is not a matter of course that all partners work together with great commitment – especially when the task at hand is a complex experiment, highly networked and has to be implemented under great time pressure. As NEB-ourhoods' coordinator, I would like to sincerely thank all partners for their commitment and perseverance, too often even after the end of office hours!

Sylvia Pintarits



Work Package 1

Coordination & Management

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Work Package 3

Entrepreneurship Empowering Green Deal

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Work Package 4 & 5

NEB-Actions for nature- and climate-adapted Spaces and Circularity

NEB-Actions for inclusive Spaces and new Energy Patterns

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City of Munich, Department of Urban Planning and Building Regulations – Sylvia Pintarits

● NEB Action

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● NEB Action

ECOLOPES

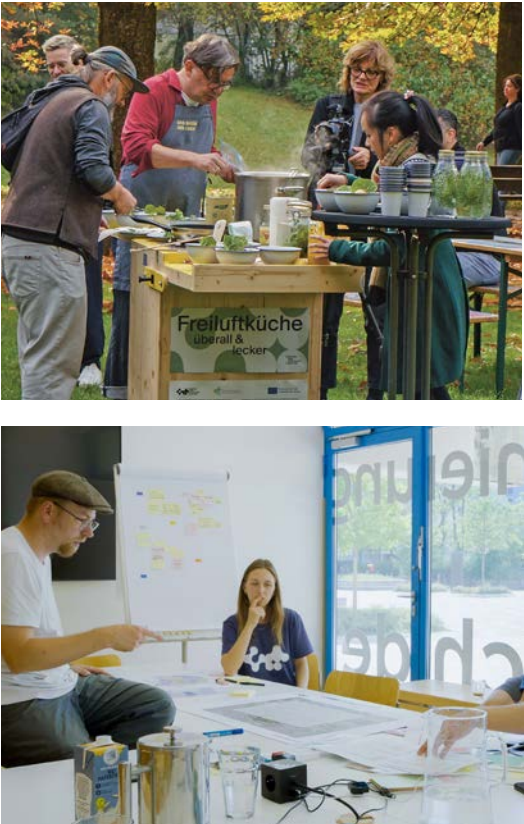
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Related Links



All Project Deliverables



● NEB Action

Prototyping
NEB-Mobility
solutions by Digital
Twin

(NEBourhoods Mobility)

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● NEB Action

Places for Youth
Culture

(Find new PEARLs)

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Let’s plan(t) a Tasty
NEWperlach

(Growing a Tasty Neuperlach)

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Munich Sustainability Initiative /
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Richard Schleich (Hexamodul)
Christine Krauss, Jörg Sellerbeck
(NEBourfoods Manual)
Raphael Krome, Adrian Sölch (Mo-
bile Kitchen)
Laura Maria Höpfner (Co-Creation
Gardens)

● NEB Action

Reprogramming
Public Private
Spaces

(Private Spaces for Public Use)

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sign

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● NEB Action

Public Power

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and Climate Responsive Design at
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Alexander Michalski, Thomas Auer,
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In cooperation with Florian Rödiger
with pupils from the Montessori
school Campus di Monaco

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● NEB Action

Redesigning
Housing Structures

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● NEB Action

Energy
Communities

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Communication,
Replication &
Dissemination

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Creating NEBourhoods Together is committed to promoting gender equal-
ity. The main partners have well-established gender equality frameworks
in place. With regard to NEBourhoods processes and actions, gender
sensitive co-cration was our guiding principle. However, it needs to be said
that we did not succeed in equal involvement and representation in every
activity. We are aware of important structural and practical barriers and will
set counterbalance measures. Specifically, the City of Munich will internal-
ly exchange on gender issues with its other EU projects to improve further
steps of NEB guided development.

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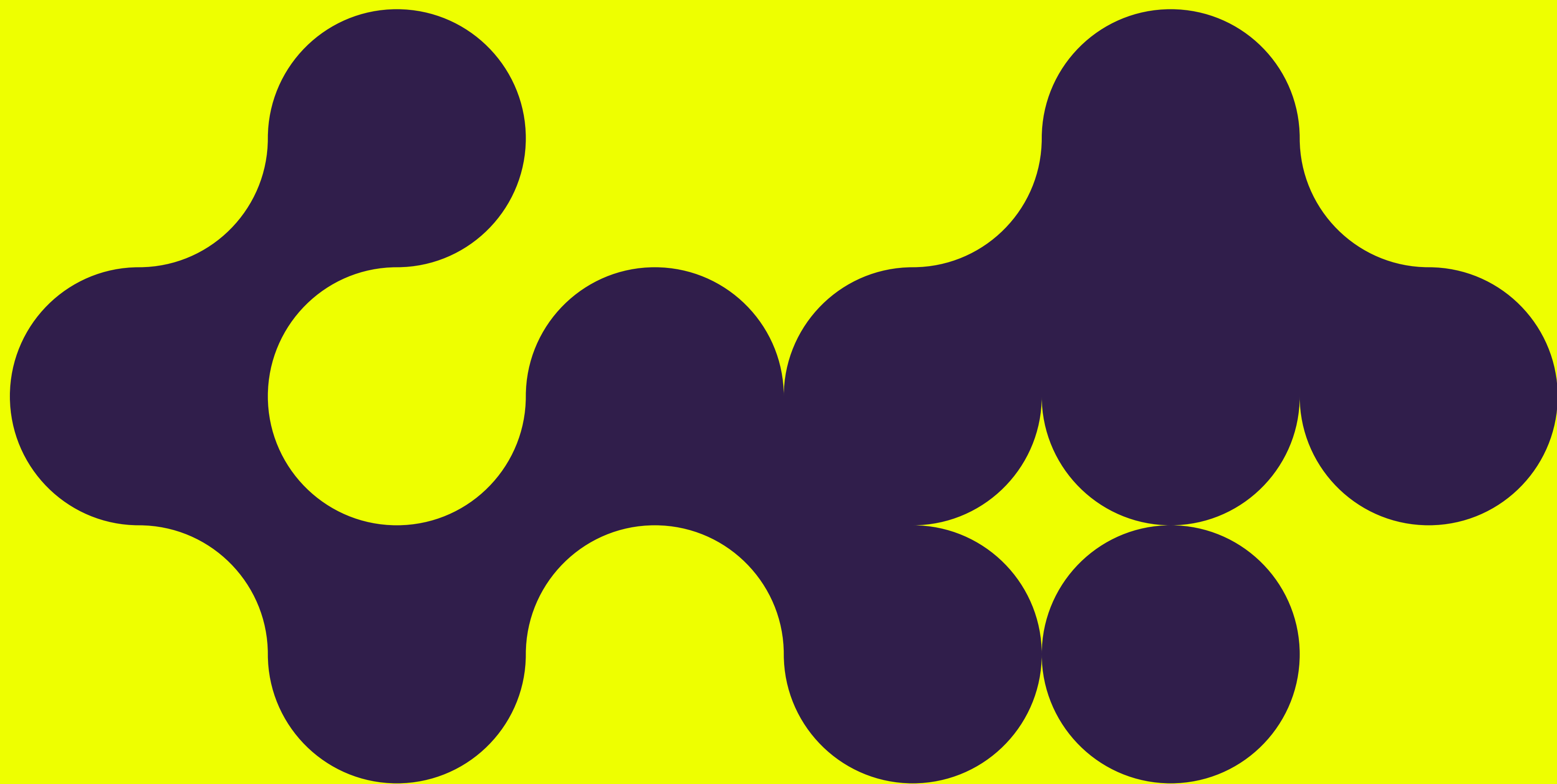
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