

PAPER OF
INNO
VATION
CITY OF
HEIDELBERG

TRANSFORMATION

TOWARDS AN *URBAN CULTURE OF INNOVATION*

Heidelberg is creating answers for tomorrow's world - for societies, for its citizens, and for the future. Our city sees itself as a **dynamic real-world laboratory**, a sandbox where analog and digital tools converge to foster a culture of cooperation and prototyping. At the core of this vision is a belief in the power of **experimentation and collaboration** to create transformative solutions.

To achieve this, Heidelberg is committed to fostering an **urban culture of innovation** – an environment that thrives on a shared climate and mindset for progress. These efforts are supported by an internal city structure designed to identify, support, and sustain innovation while championing scientific collaboration.

IDENTIFYING FIELDS OF *INNOVATION*

With the establishment of the Team Innovation and Science Cooperation team, Heidelberg has created a dedicated framework for identifying and activating innovation opportunities both within government administration and in partnership with external stakeholders.

By analyzing trends and leveraging **knowledge cooperation**, the city identifies strategic areas of innovation. These areas are explored through the **recombination of knowledge** and innovative applications of data, sparking creative solutions to today's challenges.

This innovation-driven approach positions Heidelberg's administration as a key enabler – one that not only facilitates change, but actively drives it, cultivating a style that encourages forward-thinking ideas, actions, and partnerships.

BUILDING THE RIGHT *INFRASTRUCTURE*

At the same time, it is crucial that we, as a city administration, create the right framework and provide the resources to foster knowledge and technology transfer. We also want to create conditions that encourage innovation and enable us to achieve consistently high level of innovation performance. Our employees within the city of Heidelberg corporation should be able to contribute ideas and participate in problem solving and solution finding, supported by a modern culture of trust and acceptance of failure supporting this process.

Through infrastructure, targeted programs, and support for innovation projects, we are setting the course for sustainable development. The city of Heidelberg administration recognizes its responsibility as a driver of innovation and as an innovative catalyst to shape and secure the future of our city.

:One of the core strategic challenges is translating bold innovation ambitions into scalable, real-world outcomes. This requires more than simply adopting new technologies, it calls for a holistic transformation. Success relies on three interconnected shifts: a mindset shift, an organizational shift, and a technology shift. When these pillars are aligned, organizations can move beyond merely adapting to change and instead lead it, generating lasting value and impactful solutions for the future.

FOR US, INNOVATION MEANS NEW PRODUCTS AND SERVICES, PROCEDURES AND PROCESSES THAT BENEFIT CITIZENS, THE ECONOMY, AND OUR OWN COLLEAGUES, MEET THEIR NEEDS AND CREATE ADDED VALUE



MINDSET

THE HEIDELBERG INNOVATION MINDSET

The City of Heidelberg Administration presents itself as a dynamic and future-oriented organization that is capable of developing and implementing innovative solutions to the city's challenges. This is made possible by the Heidelberg Innovation Mindset.

At the core of this mindset lie the attitudes, principles, and approaches that guide our thinking and actions. It is rooted in openness to new ideas, the courage to experiment, collaboration and networking, user-centricity, and data-driven decision-making. It fosters a culture of learning, agility, and flexibility. These aspects define our urban innovation culture, the way we work, and the foundation for innovation.

Heidelberg is one of the youngest and most forward-looking cities in Germany. Many innovative ideas have been born here and can be traced back to the Heidelberg Innovation Mindset.

This mindset speaks for itself – but not yet loudly enough. To spread it, we need to make the existing ideas and approaches more widely known.

It is the people behind these ideas who carry the spirit of the city forward, who are reinventing Heidelberg – it is time to give them a face. We are convinced that innovative development needs visionary leadership.

This mindset is the key to creating a creative, innovative, and future-thinking city. We have a unique opportunity to provide impulses that will move us all forward. Impulses that will encourage new thinking and innovation. Innovative workflows and tools help both our employees and the people of Heidelberg.

We aim to make Heidelberg's city administration "innovation-ready" and will strive to promote and inspire this mindset beyond administrative structures and departmental boundaries. We want to find innovations and make them visible. We want to get specific, take new approaches, experiment, and test, and realize solutions – this is where the work of the „Innovation and Science Cooperation“ team comes in.

» **WE DO AND WE KNOW WHAT WE ARE DOING FROM EXPERIENCE AND AS A CITY OF SCIENCE**

» **WE ENABLE AND FOSTER OTHERS**

» **WE CREATE QUICK PATHS AND SPACES FOR DESIGN AND USE THEM**

» **WE TRY, TEST, ITERATE, AND DISCARD WHEN NECESSARY**

» **WE ARE MANY AND COMMITTED TO OUR CITY, TO A CITY OF TOGETHERNESS**

» **WE STRENGTHEN HEIDELBERG AND TAKE ON SOCIAL, LOCAL, AND GLOBAL RESPONSIBILITY**

TEAM INNOVATION

TEAM INNOVATION AND SCIENCE COOPERATION

As the “Innovation and Science Cooperation” team, we develop new approaches and concepts that are tested in practice and continuously improved to drive innovative problem-solving within Heidelberg’s city administration. We are rethinking public administration. We actively embrace transformation. We create long-term, sustainable solutions for administration and society. For Heidelberg.

To achieve this, we are providing a platform for our shared vision: to further strengthen Heidelberg’s innovative power and make it shine internationally. We want to actively drive change and transformation based on the strategy outlined here. We develop new approaches and concepts that are tested in practice and continuously improved to create innovative solutions to problems. The use of data and forecasts helps us make informed decisions.

User-centricity is always at the core of our approach. We are rethinking government administration. We are actively embracing change. We are creating long-term and sustainable solutions for both government administration and society.

CREATIVITY

DISRUPTION

SUSTAIN
ABILITY

AGILITY

INNOVATION

COLLABORATION

STRATEGY AND OBJECTIVES

The Team Innovation and Science Cooperation connects science, business, and society to strategically address key aspects of innovation through iteration, scaling, user-centricity, data analysis, and forecasting. Data-driven trend analysis and forecasting enable informed decision making. Practical solutions and innovations are developed through proof of concepts, case studies and sandbox projects.

Heidelberg can gain valuable insights from the analytical power of think tanks. For practical implementation, however, a “do-tank” approach is needed to create sustainable projects and solutions. This integrative approach helps identify challenges and develop user-oriented solutions. In this way, Heidelberg aims to strengthen innovation in and through the city administration.

INNOVATION OFFICE SUPPORTS INNOVATION

The citywide “**Innovation Office**” prepares the city administration to be innovation-ready and acts as the city’s innovation radar. We provide comprehensive support to city employees in developing and implementing innovative ideas across departments and serve as a central point of contact for innovation consulting.

The Innovation Office also strengthens idea management and intrapreneurship by empowering employees to systematically develop and implement their ideas. The annual Innovation Day plays a key role in this process.

In addition, the Innovation Office is responsible for setting up and coordinating cross-departmental innovation hubs that address topics and megatrends relevant to the future.

These hubs pool expertise and resources from various administrative areas in order to work together on innovative solutions.

visibility through www.innovation.space

Innovation requires many partners, a vibrant community, creative visions, new approaches, and an inspiring space that makes these innovations visible and invites collaboration. This is where the web platform www.innovation.space comes in, showcasing Heidelberg’s innovation projects. At the same time, we support the **Heidelberg Innovation Community**, which includes changemakers and ambassadors who stand for innovation and transformation. These people should also be made visible and serve as advocates for Heidelberg as a location for innovation.

SCIENCE COOPERATION AS AN INNOVATION LAB

Heidelberg is synonymous with science and leverages scientific collaborations to unlock immense potential. The proximity to scientific research facilitates the valuable transfer of knowledge from research to practice. Bringing together experts from government, academia and business, as well as engaging citizens on specific topics, is essential to sharing perspectives, ideas and knowledge on relevant future issues and developing concrete solutions for tomorrow’s challenges.

Through cooperation with scientific partners and systematic access to knowledge and resources, we create **sustainable innovations** and strengthen Heidelberg’s competitiveness as an innovation location. The Team Innovation and Science Cooperation actively promotes this process in various ways and supports cooperation and matchmaking between administration and science.

CREATIVITY

DISRUPTION

SUSTAIN
ABILITY

AGILITY

INNOVATION

COLLABORATION

INTERNATIONALITY CREATES COOPERATIONS

Networks are the foundation of collaboration, allowing us to learn about innovative solutions locally while adapting best practices from around the world. We maintain a close exchange with our partner cities and are well connected to innovation hubs around the world. This leads to joint projects and collaborations, such as the “Test in Tallinn” project or our partnership with GABA, the German American Business Association in Northern California.

AUTOMATION THROUGH TECHNOLOGY AND DATA

We start by testing new and interesting solutions for the city administration within our Innovation and Science Cooperation team and the Mayor’s Office. We believe that modern technologies and language models can make administrative processes more efficient, especially in the context of AI-supported committee work. A key part of this is our iterative approach, where we rapidly deploy prototypes and continuously improve them.

FORECASTING AND PREDICTION

Forecasting and prediction are essential to actively shaping the future as a modern municipality. Whether it’s urban infrastructure or climate adaptation, the key is to identify trends early and plan accordingly. Technologies such as artificial intelligence and machine learning help to efficiently analyze large amounts of data and develop accurate predictive models. This proactive approach allows us to not only react to change, but to anticipate it and make strategically sound decisions.

STRATEGY AND PROTOTYPING

Strategic methods and tools are based on clear, measurable goals and promote agility and flexibility. We use objectives and key results, 100-day goals, and established frameworks to enable rapid learning and transfer. Co-creation actively engages stakeholders, increasing buy - in and innovation potential. Prototyping is at the heart of our iterative approach. Early adopters and thought leaders evaluate ideas early. Colleagues and citizens help define requirements and evaluate solutions. We use sandbox and real-world environments to test new concepts from the user’s perspective to quickly create prototypes and deliver real value.

CUSTOMER
CENTRICITY

PROTOTYPING

DATA

ITERATION

EXPERIMENTATION
TRANSFORMATION

SCALABILITY

SANDBOXES AS SPACES FOR TRANSFORMATION

In Heidelberg, sandboxes are more than testbeds. They are safe spaces for real-world experimentation, providing the flexibility to prototype, iterate, and refine user-centered solutions that address both administrative and urban challenges.

For the city administration, sandboxes are a way to actively drive innovation. They serve as practical tools to develop, test, and validate scalable solutions that deliver tangible value.

ENABLING FREEDOM TO INNOVATE

We see sandboxes as catalysts for transformation. They enable startups, companies, and innovation leaders to move beyond the lab and test new approaches in everyday urban contexts. To support this, we work to identify and clearly communicate existing regulatory flexibilities, and help stakeholders navigate and apply them effectively. Where current rules fall short, we advocate for expanding what is possible.

Through close collaboration with research institutions and civil society, we foster a culture of experimentation and shared learning.

By embedding sandboxes into Heidelberg's innovation ecosystem, we accelerate local change and offer a replicable model for other cities.

TRANSNATIONAL URBAN INNOVATION LABS

Test in Tallinn is an open test environment for national and international companies looking to trial their products and services in real urban settings. The City of Tallinn provides infrastructure, access to data, and institutional support – particularly in the fields of mobility, energy efficiency, and digital public services.

This model is now being adapted under the title *Test in Heidelberg*. Here too, companies are given the opportunity to test their solutions in an urban testbed – supported by the city administration, Stadtwerke Heidelberg, and local innovation stakeholders.

THE INNOVATION PARTNERSHIP BETWEEN TALLINN AND HEIDELBERG

In contrast, *Tallinnovation* is a structured innovation competition that has been running in Tallinn for five years. Its goal is to identify, support, and implement regional smart city solutions. The competition primarily targets start-ups and tech-oriented companies from the region that respond to specific urban challenges with innovative ideas.

Starting in 2025, *Tallinnovation* will expand in collaboration with Heidelberg: the best solutions will be tested not only in Tallinn, but also in Heidelberg. The focus is on innovative citizen services, data-driven public administration processes, and solutions in the fields of energy and sustainability.

SHAPING CHANGE IN CITY ADMINISTRATION WITH APPLIED AI AND INNOVATION

Heidelberg's smart city initiative aims to make the city more manageable, more responsive, and more livable. A modern city administration must be able to identify challenges earlier, make better decisions, and act more effectively and this is precisely where applied AI comes into play. For us as the Innovation and Scientific Cooperation Team, applied AI means using data and artificial intelligence in a targeted and purposeful way wherever they create real added value in everyday administrative work. We intentionally leverage the potential of disruptive technologies, including generative AI, within our methods and processes and understand this practical, hands-on use as "applied AI." It is not about technology for its own sake, but about concrete, effective problem-solving: reliable evidence, forecasts, and scenarios; better prioritization; increased efficiency; and informed decisions under uncertainty. Applied AI provides robust decision-making foundations and actionable recommendations that deliver tangible impact in practice.

At the same time, applied AI opens new creative possibilities and supports more efficient workflows. In line with our innovation mindset, we foster an administrative culture built on experimentation, learning, and continuous development. This enables a future-oriented city administration that acts flexibly,

adaptively, and consistently in the interests of its citizens. Generative AI is used deliberately in an application-oriented, iterative, and exploratory way, as a practical toolbox for day-to-day administrative tasks that connects modern data and AI processes with innovative working and thinking patterns. In doing so, applied AI transforms working methods, decision-making logics, and steering processes beyond individual departments. It introduces new forms of learning, experimentation, and dealing with uncertainty: the core elements of modern innovation work.

As the Innovation and Scientific Cooperation Team, we play an active and hands-on role in this transformation: we identify relevant use cases, initiate pilot projects and sandbox approaches, often in collaboration with the scientific community, and bring together different departments so that insights can lead to real-world change. Applied AI has become a key competence for any modern city administration and is essential for forward-looking, impact-oriented governance and effective action. We embrace this responsibility. Applied AI and innovation together represent the responsible and strategic use of emerging technologies to strengthen the performance and resilience of Heidelberg's city administration in a targeted and sustainable way.

TRANSFORMATION THROUGH CONTINUOUS IMPROVEMENT

The Heidelberg city administration focuses on methodological innovation, new work strategies and transformation to maximize the potential of its employees. Through strategic team building, a creative working environment and networked collaboration, innovative solutions are developed for a forward-looking administration. Self-reflection and continuous improvement are key components of this process. By recognizing strengths and weaknesses and learning from experience, we can act more consciously, make informed decisions and communicate more effectively. The targeted sharing of skills and competencies fosters a culture of continuous learning and strengthens the collective knowledge base within the city administration. The result is a flexible, innovative organization that harnesses the potential of all employees to create forward-looking solutions.

The **Team Innovation and Science Cooperation** also regularly reflects on its focus and direction, and likes to bring in external expertise. Together with the Berlin-based agency C4, we refined our innovation mindset and laid the foundation for our innovation strategy, which led to the creation of this Paper of Innovation.

In addition to having eight international city partnerships, Heidelberg is strategically focused on expanding its global networks and strategic collaborations. Together with other cities, innovative solutions to global challenges are being developed. Cities play a key role in the fight against climate change and are often drivers of innovation at national and international levels. Heidelberg operates as a nationally and internationally networked city that is aware of its global responsibility. Internationality is part of **Heidelberg's DNA** and brings added value to all – from cultural diversity to the development of pioneering solutions for the future.

OBJECTIVES OF THE 'INNOVATION AND SCIENCE COOPERATION' TEAM

POSITIONING HEIDELBERG AS A GLOBAL INNOVATION HUB

- » Foster cooperation between science, business, and society to implement strategic projects.
- » Expand visibility of Heidelberg's innovation ecosystem through platforms like innovasion.space and global initiatives.
- » Strengthen Heidelberg's reputation as a leading innovation hub in the international context.

ENHANCING INNOVATION WITHIN THE CITY ADMINISTRATION

- » Initiate and support innovation projects through proof of concept, sandbox and living lab initiatives.
- » Amplify the innovative efforts of city administration via programs like the annual Innovation Day, driving awareness and engagement.
- » Promote user-centered services and make Heidelberg's administrative innovation strength a model for other cities.

HEIDELBERG, WHERE ELSE

I have been to a wide variety of places and have accompanied and been responsible for innovative processes in many cities. I am familiar with different approaches, work cultures and traditions of thought and almost used to seeing new things.

Heidelberg stands out from everything. But what did I expect? Castle, old town, university, clinics, great weather: everything is a household name. Tradition and culture, of course. But when you meet doers on site, a picture emerges that innovation is the attitude to life here. Innovation is not an isolated case here but has a system. Excellence, clusters, incubation: This is what Silicon Valley must have felt like forty years ago.

The joy of experimentation has unique conditions here. Success stories come together. A community is formed. The city also welcomes the development and understands its role actively and acts – just do it and don't slow down.

But why does it work in Heidelberg of all places? Why is the networking of science, business and society so successful here? Why is Heidelberg a successful location for start-ups and start-ups? How does Heidelberg manage to collect prizes and awards again and again? And how can this success be transferred? Heidelberg seems to be doing something right here, as evidenced by international indices with high rankings for start-up-friendliness and innovative strength. But numbers only measure the “what”.

It is up to the people in Heidelberg who are driving these developments. It's the personal stories and testimonials that explain the “why”. They draw a unique attitude to life. It is due to the visions that are being pursued in Heidelberg. It is due to the Heidelberg mindset that all Heidelberg residents share.

This mindset is a magnet for other entrepreneurs and founders when choosing a location. Heidelberg does not have to hide in the international competition for the settlement of innovative companies, institutions and start-ups. Heidelberg can play internationally in the top league. Heidelberg - however - must put itself in the limelight even more strongly on the international stage. The city shares with its twin city Palo Alto and the Bay Area not only a passion for innovation and a globally unique ecosystem, but also an attitude to life. But what do you call this mindset, how do you get to the heart of this attitude to life? Heidelberg is not located in Silicon Valley, but in Sunny Valley! Heidelberg is the Sunny Valley!

This name stands for a relaxed but hands-on life in the city: hands-on, laidback and excellent. The name stands for a unique radiance of innovation and a passion for innovation and optimism. It stands for change, growth and sustainability, internationality but also a special humanity and the feeling of being welcome. For happy people, positive vibes, openness, people come together, talents come together and develop ideas together that can lead to innovations, Heidelberg has

what it takes. It is precisely this energy of the people. In Heidelberg you meet wonderful “ambassadors”.

This spirit of Germany's youngest city radiates, electrifies and legitimises Heidelberg as the centre of the “sunny valley”.

With this brand and the associated campaign, the location and the good reasons for it can be marketed internationally. Heidelberg benefits from this as an economic, scientific and social focal point. For people, companies, science and administration, this mindset becomes a proud identification feature. If anyone can do it, it's in Heidelberg.

**Welcome to Sunny Valley, welcome to Heidelberg.
It's time to shine!**

Fabian Schludi
Managing Director Strategy at
C4 Berlin

POWER OF INNOVATION

FOR AN INNOVATIVE AND FUTURE-ORIENTED CITY ADMINISTRATION IN HEIDELBERG

POSITIONING	We define clear user-centered strategies by identifying our target groups. Understanding their needs ensures we deliver relevant and impactful innovations.
PURPOSE	We align our efforts with long-term, meaningful goals to ensure sustained success and bring about positive change.
PEOPLE	We place user-centricity at the heart of our approach. We bring together interdisciplinary teams and the right partners to integrate diverse expertise and ensure the success of our initiatives.
PREDICTION	We leverage data and analytics to predict future trends, challenges, and opportunities, enabling proactive, informed decision-making.
PASSION	We cultivate an environment that fosters creativity and inspires innovation, encouraging a passion for continuous improvement and problem-solving.
PROTOTYPING	We work iteratively. We develop prototypes, gather feedback, and refine solutions to ensure they meet user needs and deliver real-world value.
PROGRESS	We are committed to continuous progress. By learning from experience and focusing on improvement, we implement scalable solutions quickly and effectively.
PROCESS	We manage and secure the success of projects through SMART goals, concrete actions, efficient resource management, transparency, and clear organizational structures.
PRODUCTS	We develop high-quality, scalable solutions that meet the needs of the city, aiming for sustainable impact.
PROBLEM	We ensure that the “why” is clear. Precise problem definition is key, sharpening our focus on the significance of the challenges we face and the solutions we develop.
PROOFED	We adhere to high-quality standards through rigorous testing, validation, and transparent communication, ensuring that our solutions are reliable and effective.
POWERED BY	We actively support and promote innovation and scientific cooperation, fostering a culture of collaboration between science, business, and government to drive progress.

WE REIMAGINE THE **FUTURE**

City of Heidelberg

Team Innovation and Science Cooperation

Aline Moser, Prof. Benjamin Zierock, Mareike Rimmler,
Sascha Verhoeven and Lena Lenz

