




# Karlsruhe Transformation Center for Sustainability and Cultural Change

An Institution of Change at the Institute for Technology Assessment  
and Systems Analysis (ITAS), Karlsruhe Institute of Technology (KIT)



... shaping change together

... experiment, research,  
educate, advise, accompany

... for a future worth living


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# A global cultural change is needed

## Background

**Culture change. Ways out of the global crisis. From knowledge to action. Daring to change.**

Humanity is in crisis. Despite manifold efforts, the „Great Transformation“<sup>1</sup> towards a sustainable way of life, towards a good life for present and future generations, is faltering.

Major destructive trends such as climate change, the gap between rich and poor, species extinction, flight and displacement, the loss of fertile soils, overuse of resources, etc. have not yet been reversed neither globally nor in Europe or Germany. New problems such as social isolation, mental suffering, stress and burnout are on the rise worldwide. A global cultural change is needed.<sup>2</sup>

If culture, which constitutes our everyday life, is understood as a „programme for the permanent preservation of a collective“, then a global lack of culture prevails here and now in humanity. For the way of life and economy that is effective worldwide today does not preserve, but rather undermines and destroys in the long run the ecological, economic, social and increasingly also the physical and psychological foundations of human life - and moreover the diversity of life on earth. A fundamental cultural change is needed to turn the tide.



## There is a fundamental gap between knowledge and action

There is no lack of knowledge and ideas for a future worth living. Orientation for this is provided in particular by the model of sustainable development<sup>3</sup> propagated by the United Nations since the 1990s, the associated scientific-ethical discourses and the debates on a „Great Transformation“<sup>1</sup> initiated in the 2010s.

But there is a fundamental gap between knowledge and action. So who will save humanity from extinction and ensure a livable, sustainable future?

Science and technology alone will not save us. Scientific knowledge and achievements, technologies and technical infrastructures increasingly permeate our lives.

Science and technology also offer essential starting points and contributions to sustainable development, be it in resource conservation, with efficiency improvements or with environmentally friendly and low-CO<sub>2</sub> technologies. In the history of mankind, however,

scientific and technological progress is also one of the causes of today's global problems. Science and technology are part of the problem and part of the solution. But only part.

So it's up to politics, the economy, civil society or each individual? A major transformation towards a locally and globally sustainable way of life and economy affects all areas of society – and this in full width and depth. Ultimately, all social systems and actors must contribute to a successful transformation.<sup>4</sup>

And more than that: they must change, we must also change ourselves.



**... willingness to work together to promote change**

**... experiment, practice and learn**

Our technologies and technical infrastructures, economic and political systems, social structures and organisational models, our self-image and our world views, our individual and collective certainties and convictions are all up for review. Much will, much must, much may change.

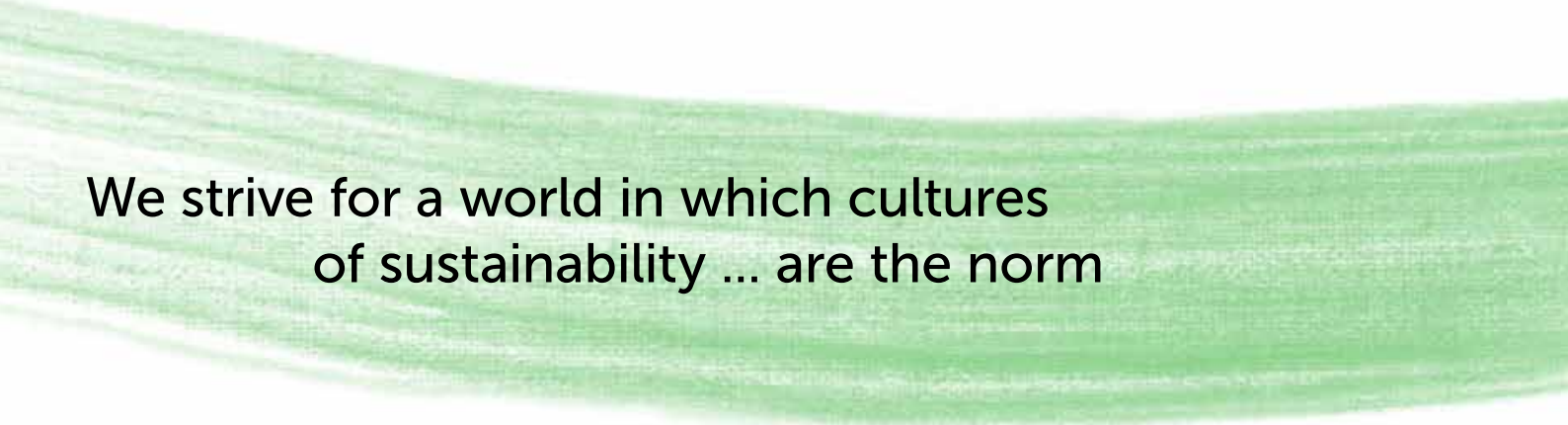
How to continue in the search for a good, sustainable life?

First of all, it is necessary to look, to really accept and take seriously the insights and knowledge about our existentially threatened future and to let go of outdated ways of thinking, patterns of action and structures in order to create space for something new. Furthermore, it is necessary to empower pioneers of change, to support those organisations and groups that have already set out in niches.

In order to carry change into the mainstream, there needs to be an understanding across all sectors of society and then a willingness to work together to bring change forward.

This also means bringing together completely different things, struggling for common visions, trying out new things, experimenting, practicing and learning. Because the Great Transformation cannot be completely imagined or even planned, neither as a process nor as a result. We must dare to change, step by step, on the way to future cultures of sustainability.





**We strive for a world in which cultures  
of sustainability ... are the norm**

## Vision

**Culture of sustainability. Justice. Community. Real-world lab on a permanent basis. Opening spaces.**

The Karlsruhe Transformation Center for Sustainability and Cultural Change (KAT) is an institution of change. It offers spaces and opportunities to cooperatively experiment with ways out of unsustainable lifestyles, economies and structures in order to learn sustainability individually and socially.

We strive for a world in which cultures of sustainability based on inter- and intragenerational justice, common good orientation, environmental friendliness, communality, tolerance, resonance, connectedness and peacefulness are the norm.

The KAT develops inter- and transdisciplinary action and orientation knowledge for the Great Transformation and at the same time provides concrete, practical

contributions to it. We see consistency, efficiency and sufficiency as essential strategies that are not interchangeable.

With the KAT, one of the world's first real-world labs will be institutionalized and made permanent, as well as supplemented with essential areas (education, consulting, basic research and personal sustainability), in order to be able to accompany processes of change synergistically in the long term, but above all for the purpose of perceiving and organizing sustainable development as a permanent and essential joint task of all sectors of society.



**Authentic role model**

**Culture of sustainability**

The Karlsruhe Transformation Center sees itself as non-partisan, inclusive, non-violent, integral and committed to a free democratic basic order, human rights, life and all living beings.

The KAT creates places of sustainability and is an authentic role model and pioneer of a culture of sustainability in its working methods and self-image. It shows how sustainability can already be lived in a life-affirming and future-oriented way.

The KAT sets impulses and carries these impulses to other places. Thus, it is a contact point, home or partner for all those who really want to take the path to a sustainable future.

With the KAT, a locally, regionally, nationally and internationally effective center for sustainable development will emerge in the coming years.



# The Great Transformation

## Mission

**To inspire. Organizing processes of change. Great Transformation. Social learning.**

The Karlsruhe Transformation Center supports, researches and shapes the Great Transformation<sup>1</sup>, the transformation to a sustainable society<sup>3</sup> in a comprehensive and special way (see „Goals and Tasks“, p.21).

It questions fundamental cultural patterns of our (global) non-sustainable economy and way of life and develops starting points for profound change. The KAT initiates, supports, organizes, accompanies and researches processes of change and thus provides options and building blocks for future cultures of sustainability.

The starting point and creative core continues to be the real-world lab „Quartier Zukunft – Labor Stadt“ (District Future – Urban Lab)<sup>B</sup>, which simultaneously conducts

research and facilitates transformation through a transdisciplinary infrastructure.<sup>5</sup> The real-world lab's corresponding experimental and effective space is primarily Karlsruhe. This is where the interface between science and society is lived, and where the direct coupling, reconnection and testing of transformative knowledge takes place under real conditions of urban life.

In recognizing sustainable development as a task for humankind, the KAT's integrative approach overcomes existing social system boundaries, particular interests and schools of thought – and builds bridges between what was previously separate.



## Research under real conditions

In diverse cooperations with different social actors, it develops real alternatives and starting points for future-oriented cultures of sustainability, including the implementation of technical and social innovations.

As an institution of change, the KAT will experiment, research, educate, advise, accompany – for sustainable development:

- develop, demonstrate and cooperatively try out real alternatives
- support pioneers of change
- promote social dialogue on the urgent questions facing humanity
- forge a broad social alliance for a future worth living in
- give courage
- show that change is possible.

In all its activities, the KAT is guided by the concept of „sustainable development“<sup>3</sup>, in particular the „Sustainable Development Goals“<sup>A</sup> of the United Nations, and draws on the established and scientifically based „Integrative Concept of Sustainable Development“<sup>6, 15</sup>, but goes beyond this in its understanding and integrates cultural and human aspects of sustainable development (e.g. „personal sustainability“)<sup>7</sup>.

It works both proactively, in researching and testing new lifestyles, economic forms and socio-technical innovations (e.g. energy transition), and preventively and reactively in dealing with foreseeable and already existing crises (e.g. climate change/adaptation, refugee movements, medialization and digitalization consequences).

## Initiate, shape and accompany transformation processes

The Karlsruhe Transformation Center aims to close the gap between knowledge and action for sustainable development.

Between knowledge and action lies experimentation, the new as a venture. In this sense, the KAT wants to develop and test integrative sustainability solutions in transdisciplinary experiments in cooperation with science and different social actors.

It is important and special that the KAT is institutionalized and thus permanent, as many decisions and problem solutions in our fast-moving, highly accelerated world suffer from short-termism and short-sightedness. As urgent as a major transformation is, social and cultural change processes are slow and long-term. These cannot be accelerated at will.

As an institution, the KAT has the unique opportunity to accompany transformation processes in both research and design over the long term. Sustainability research beyond the usual project funding period of one to three years is just as important as a reliable framework for transformation processes. Social learning processes, cooperations for profound change – in which the partners themselves also change – require trust, reliability, reflection, and that means: time.

# Goals & Tasks

The KAT is dedicated to the following closely related and mutually beneficial tasks and goals:

## Action and Innovation

The KAT initiates change, develops and tests social, technical and economic contributions to sustainable development in all areas of life.



## Consultancy

With its competences and real-lab experiences, the KAT advises organisations, municipalities, companies and initiatives on their change towards sustainability.

## Education

In cooperation with renowned actors, the KAT offers individual educational programmes in the field of sustainable development for universities, schools and the general public



## Research

The KAT conducts sustainability, transformation and transformative research. It conducts long-term research into processes of change as well as conditions for a successful transformation and links the knowledge to basic research.



## Experimentation

The KAT opens up, develops and maintains experimental spaces and thus creates ideal conditions for change.



## Communication and Networking

The KAT supports the networking of a wide variety of actors, such as technical and social pioneers of change. The prerequisite for this is communication and the resulting mutual understanding.



## Reflection and contemplation

In a restless and increasingly fast-paced world, the KAT offers spaces for reflection and retreat, and is thus a refuge of change for deceleration, resonance<sup>8</sup> and self-reflection.



## Node of the Network Real-world Labs for Sustainability

In addition to its outward activities, the KAT is also explicitly dedicated to an „inner culture of sustainability“, and wants to assert the claims that are pursued in its vision and objectives outwardly, but also inwardly, in its own organization, and thus become an authentic and attractive organization for its employees. Self-determined, lively and personality-promoting work are central elements here.

While the KAT remains effective in its direct real-lab activities primarily locally in the experimental space of Karlsruhe, setting impulses locally and researching them as case studies, its sphere of influence extends far beyond this with the transfer of this knowledge. With its sustainability and transformation research – which is also possible independently of the real-world lab – as well as with educational and advisory activities and process support for other actors and organizations, it reaches out to national and international communities (e.g. within the framework of the

„Global Consortium for Sustainability Outcomes“<sup>G</sup>). Its orientation and experience predestines the KAT to advise, coordinate or help shape the establishment of real-world labs and transformative projects elsewhere. As the hub of the Network of Real-world Labs for Sustainability<sup>H</sup>, the KAT is optimally integrated into the transformative research landscape.



For the aim of a „dense sustainability“

## Origin and Institutional Orientation

**District Future – Urban Lab. Lifeworld and science. Dense sustainability. KIT. ITAS.**

The practical starting point of its genesis and ultimately also the theoretical-methodological core of its future work is the research and development format „real-world lab“<sup>10</sup>: the direct transdisciplinary and transformative linking of sustainability innovation and research at the interface of lifeworld and science.

In the real-world lab, a wide variety of approaches to sustainable development are carried out and simultaneously researched in cooperation with practical partners in the form of real-world experiments.

In concrete terms, the KAT is the result of the expansion and institutionalisation of the Karlsruhe real-world lab: District Future – Urban Lab<sup>B</sup> with its sub-projects<sup>C</sup> and the Karlsruhe School of Sustainability (KSN)<sup>D</sup>. It

builds directly on the competences, structures and experiences gained there and successively expands them to include essential functions and areas. Quartier Zukunft in particular has been doing transformative and transdisciplinary pioneering work since 2012.<sup>11, 12</sup> With its clearly participatory and co-creative approach and the goal of „dense sustainability“<sup>13</sup> based on an elaborate sustainability concept<sup>6</sup>, it has since gained a worldwide reputation as a real-world lab of the first hour and holds a leading position nationally in real-world lab research.

For ten years now, the team around District Future – Urban Lab and KAT has been steadily expanding its real-world lab activities.





## Awarded several times for its achievements

To date, around 30 publicly funded (transdisciplinary) projects have been and are being successfully carried out within the framework of the real-world lab, around 400 publications have been produced, dozens of collaborations have been established, and several thousand interested people have attended over 200 events.

Since 2015, the real-world lab has been operating the Future Space for Sustainability and Science in Karlsruhe as a district office and crystallisation point for close contact between scientific and non-scientific partners. Cities have been advised and accompanied in their sustainable development, as have municipalities, companies, other real-world labs and educational institutions.

The Ministry of Science, Research and the Arts of Baden-Württemberg (MWK) awarded the Karlsruhe Reallabor the top grade („triple A“) in an evaluation and described it as a „blueprint for the conception and im-

plementation of a real-world lab“. <sup>14</sup> The District Future and its sub-projects have received several awards for their achievements, e.g. the „Transformative Science Research Award“ (2018), the „Joachim Reutter Award for Social Innovation“ (2021) and several times from the German Federal Government’s Council for Sustainable Development (see p.34).

Interested people from around 30 nations visited the District Future and took the ideas back to their respective home countries.

To date, a total of about 11,4 million euros in funding has been raised for the research and development work of the real-world lab.

Currently, about 20 staff members are involved in active real-world laboratory work and the development of the KAT.

## At the interface between science and society

With the establishment of the KAT, not only the existing real-world lab activities will be deepened, institutionalized and synergistically linked, but the already existing portfolio of tasks will also be expanded. In particular, professionalized advisory, training and process support services, the linking of transdisciplinary research to basic research and the creation of spaces for reflection and contemplation are essential innovations of the KAT. The real-world lab work and the expanded portfolio enable the KAT to make effective and well-founded contributions to the Great Transformation.

The institutional background is the Institute for Technology Assessment and Systems Analysis (ITAS)<sup>E</sup> at the Karlsruhe Institute of Technology (KIT)<sup>F</sup>, into which the KAT<sup>I</sup> is integrated as an independent organisational unit.

For more than twenty years, ITAS has been conducting a wide range of theoretical and conceptual as well

as applied sustainability research. Through the Office of Technology Assessment at the German Bundestag (TAB), it advises the parliament on all emerging issues of technological progress and does a great deal of research on future scenarios and the co-evolution of technology and society.

Furthermore, the Institute of Technology Futures (ITZ) and the Centre for Applied Cultural Studies and Studium Generale (ZAK), both located at KIT, form close and strong partners for KAT. The former in its connection to basic research (especially sociology, philosophy, history) and the latter in educational matters and public science cooperation.

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- 13** Quartier Zukunft (2020): Dein Quartier und Du. Nachhaltigkeitsexperimente im Reallabor zu Nachbarschaften, Bienen, Naschbeeten, Kreativität und Konsum. Karlsruhe.
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## Institutions & projects at a glance

- A** United Nations – Sustainable Development Goals: [sustainabledevelopment.un.org/?menu=1300](https://sustainabledevelopment.un.org/?menu=1300)
- B** District Future – Urban Lab: [www.quartierzukunft.de](http://www.quartierzukunft.de)
- C** Current projects of the KAT: [www.itas.kit.edu/fg\\_kat.php](http://www.itas.kit.edu/fg_kat.php)
- D** Karlsruhe School of Sustainability: [www.mensch-und-technik.kit.edu/ksn.php](http://www.mensch-und-technik.kit.edu/ksn.php)
- E** Institute for Technology Assessment and Systems Analysis: [www.itas.kit.edu](http://www.itas.kit.edu)
- F** Karlsruhe Institute of Technology: [www.kit.edu](http://www.kit.edu)
- G** Global Consortium for Sustainability Outcomes: [sustainabilityoutcomes.org](https://sustainabilityoutcomes.org)
- H** Network Real-World Labs for Sustainability: [www.reallabor-netzwerk.de](http://www.reallabor-netzwerk.de)
- I** Karlsruhe Transformation Centre for Sustainability and Cultural Change: [www.transformationszentrum.org](http://www.transformationszentrum.org)

## Further research projects

Karlsruhe Real-World Lab for Sustainable Climate Protection: [www.reallabor-karla.de](http://www.reallabor-karla.de)  
Schule der Transformation: <https://www.transformationszentrum.org/schule-der-transformation.php>  
#climatechallenge: [www.transformationszentrum.org/climatechallenge.php](http://www.transformationszentrum.org/climatechallenge.php)  
Co-creation of Sustainable Food Supply Chains (Co-SFSC): [www.sustainablefood-sc.org](http://www.sustainablefood-sc.org)







You can learn more about the KAT at  
**[www.transformationszentrum.org](http://www.transformationszentrum.org)**