The Wuppertal Institute

At a glance

Wuppertal Institut

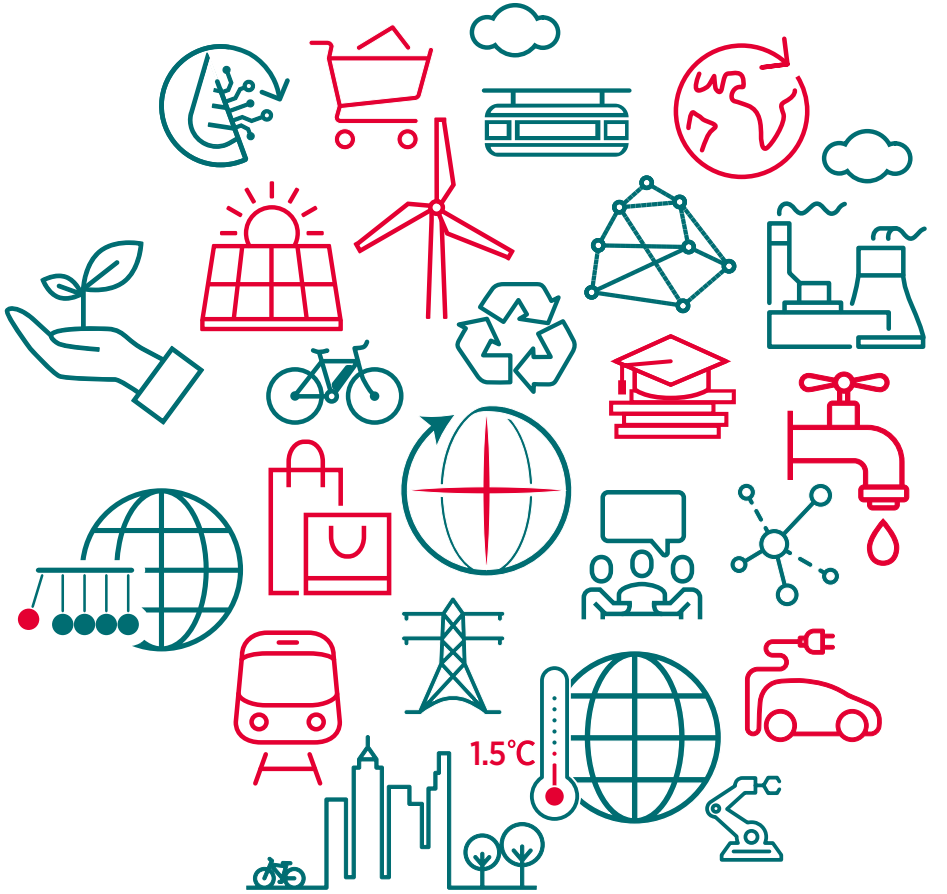
Who we Are

About us

Since it was founded in 1991, the Wuppertal Institute has been an integral part of the national and international research landscape and a key player in shaping the debate on issues relating to climate, energy and resources.

The Wuppertal Institute is an implementation-oriented research institute with roots in the German federal state of North Rhine-Westphalia and a global horizon. Together with our stakeholders, we shape transformation processes aimed at a future in which global warming is reduced to a tolerable level and Earth's resources are managed in such a way that all of its inhabitants can enjoy a good life within the planetary boundaries.

The German federal state of North Rhine-Westphalia (NRW) is the sole shareholder in the non-profit limited company (gGmbH).



Transformative Science

Research for the “great transformation”

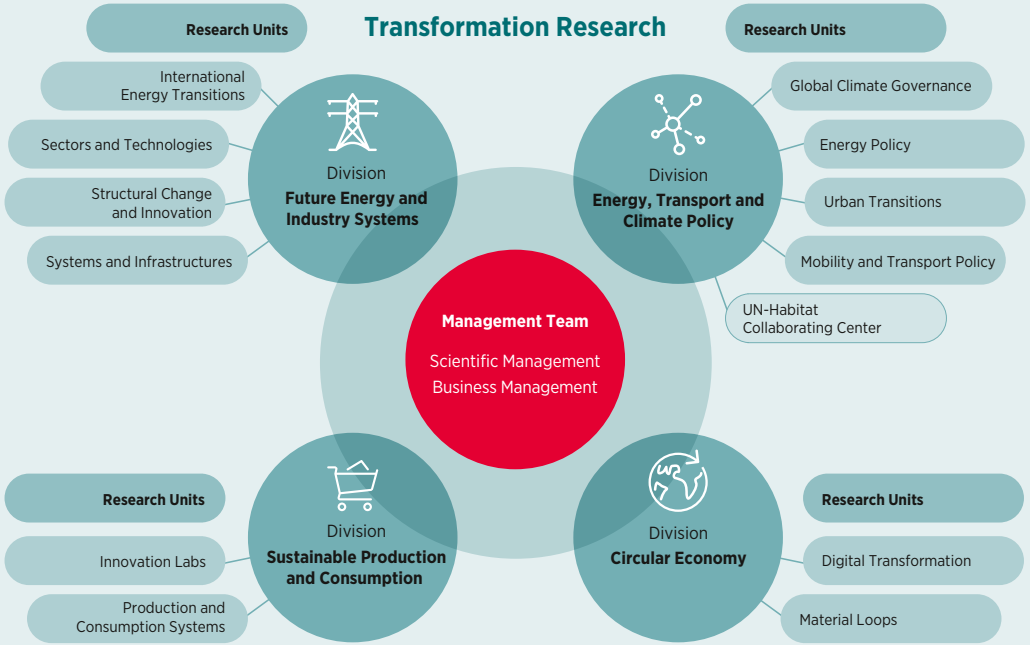
The research carried out by the Institute focuses on specific social problems with the aim of building a better understanding of change processes as well as generating target and system knowledge, thereby allowing the Institute to serve as a catalyst for transformation processes. The Wuppertal Institute refers to this three-pronged approach of target knowledge, system knowledge and transformation knowledge as “Zukunftswissen” (future knowledge). In many cases, viable concepts are developed in “real-world laboratories”. Research thus becomes part of the transformation process, in which solutions are developed, reviewed and, if necessary, adapted in collaboration with partners operating in practical settings.

Transformation areas

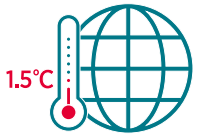
The great transformation towards a sustainable world is taking place at many different levels. The research carried out by the Wuppertal Institute focuses on seven transformation areas, each of which has very specific constellations of stakeholders and underlying core research issues concerning energy, resources, nutrition, cities, mobility and industrial activity, as well as prosperity and consumption. The theme that all of these areas of research have in common is the concept of managing structural change and digitalisation and, in particular, the question of the extent to which digitalisation can be put on a sustainable footing and support the implementation of transformation processes.

The Institute’s research is organised in line with these topic areas into 15 Research Units within four Research Divisions.

Research Structure



Core Research Issues



Limiting climate change

Ending the fossil era, keeping global warming below 1.5 °C and launching a climate-friendly, fair and sustainable economic system are objectives that call for the involvement of many stakeholders at municipal, national and international level. With that in mind, the Wuppertal Institute analyses policy instruments and develops integrated strategies for business, politics and civil society.

Digital transformation

Digital technologies are opening up a wealth of new opportunities for sustainable development. On the other hand, their use is also a source of environmental concern due to the increasing consumption of energy and natural resources by electronic devices and infrastructure. That is why it is important for the digital transformation to be actively and intelligently managed so that it can contribute to a sustainable future without giving rise to new problems. For that purpose, the Institute evaluates digital technologies and product developments, infrastructure and solutions with regard to their functions and interactions from a holistic perspective.

Shaping the energy transition

How can we make a success of the shift towards an energy system based entirely on renewable energy sources? This goal can be achieved using an intelligent interplay between increasing energy efficiency, expanding the generation of renewables and developing new processes in the field of industrial production. To that end, the Wuppertal Institute develops robust, implementable solutions for decision makers in the worlds of politics and business.

Climate-friendly primary industry

The energy-intensive industrial sector, above all the production of steel, basic chemicals, aluminium, glass, paper and cement, accounts for a large and steadily growing proportion of global greenhouse gas emissions. The restructuring of industrial systems and energy systems must therefore be jointly addressed and is an important social undertaking for business, policymakers and civil society. How this objective can be achieved, what changes will be required along the applicable value chains and how the specific innovation systems within the various sectors will need to be designed are key questions examined by the Wuppertal Institute.

Keeping resources in circulation

Every year, Germany alone produces over 400 million tonnes of waste. Germany and the European Union have set themselves the goal of realising a comprehensive transformation towards a functioning circular economy. Waste must therefore be prevented as far as possible, products and components used for as long as possible and all waste that does arise treated as a potential resource. The associated challenges and issues are among the Wuppertal Institute's core areas of research.

Rethinking mobility

In addition to the risks of accidents, the impacts of transport on climate change, air pollution and land consumption are widespread. However, there are other ways to keep people mobile and transport goods. Key building blocks in the transition of the transport and mobility system are, above all, a reduction in private car usage, intelligent public transport options, attractive infrastructure for cyclists and pedestrians, economical and efficient modes of transport, as well as climate-friendly and non-polluting fuels. The Wuppertal Institute's researchers are therefore engaged in analysing how systems can be changed successfully without giving rise to new problems and what national and global policy frameworks will be needed to achieve this.

Changing cities and urbanity

More than 70 per cent of global anthropogenic greenhouse gases are emitted in towns and cities. Most of the planet's resources are used in urban areas, because they are home to around half of the world's population. These locations are focal points for the transformation as well as being the launch pad for social changes. For this reason, they require support by means of appropriate policy frameworks at European, national and municipal level. The Wuppertal Institute researches what is important in the transition to environmentally sustainable cities that are fit for the future.

Prosperity, consumption and lifestyles

Efficiency improvements and the switch to renewable energies alone are not enough to establish a pathway towards sustainable development. These measures must be accompanied by new consumption patterns and sustainable lifestyles embedded in intelligent business models, which help to decouple the development of prosperity from resource consumption. The Wuppertal Institute is particularly interested in investigating ways in which products and services need to be designed so that they deliver a higher quality of life and can be produced sustainably, globally or locally, as well as socio-technical innovations as a promising route to sustainable change.

Food in transition

From field to fork, the production, processing and consumption of our food make a significant contribution to global water scarcity and the loss of both biodiversity and soil quality. Viewed over the entire value chain, human nutrition is responsible for around a third of global greenhouse gas emissions. The Institute's researchers are addressing this issue and developing strategies to reduce the negative impacts of food production and consumption on the environment and resources. Social factors such as access to sustainable nutrition also play a major role in their work.

The Wuppertal Institute in Figures*

40
current dissertation projects

about 350
publications

around 4,500
media reports

40,000
followers on social media

around 450
talks delivered to audiences from the worlds of politics, business and science

Revenue of **about €25 million**

170
projects in over 50 countries worldwide

over 320
employees

20
lectures and seminars

* All figures rounded or given as an annual average per year

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