

PROJECTS AND INITIATIVES

■ Helmholtz Programs and Initiatives

Energy System Design; Materials and Technologies for the Energy Transition; Fusion; Nuclear Waste Management, Safety and Radiation Research; plus the joint initiative "Energy System 2050".

■ Energy Lab 2.0

Smart platform to analyse the interaction of components of future energy systems, linking producers, storage systems and consumers.

■ Three Kopernikus Projects

ENSURE: developing and testing efficient and viable grid structures combining centralised and decentralised energy supply; Power2X; SynErgie.

■ POLiS - Post Lithium Storage

Cluster of Excellence investigating new battery materials and technology concepts.

■ FPS KA Energie

Karlsruhe Energy Research Partnership, addressing the four main topics of grids, storage systems, mobility and data.

■ KIT School of Energy

Programs offering doctoral candidates and professionals the opportunity to identify, understand and solve the problems of a sustainable energy supply.

■ Technology Transfer

Business partners interested in energy technology are brought together with the right cooperation partners at the KIT.



KIT Energy Center Energy for Tomorrow

Research – Higher Education – Innovation

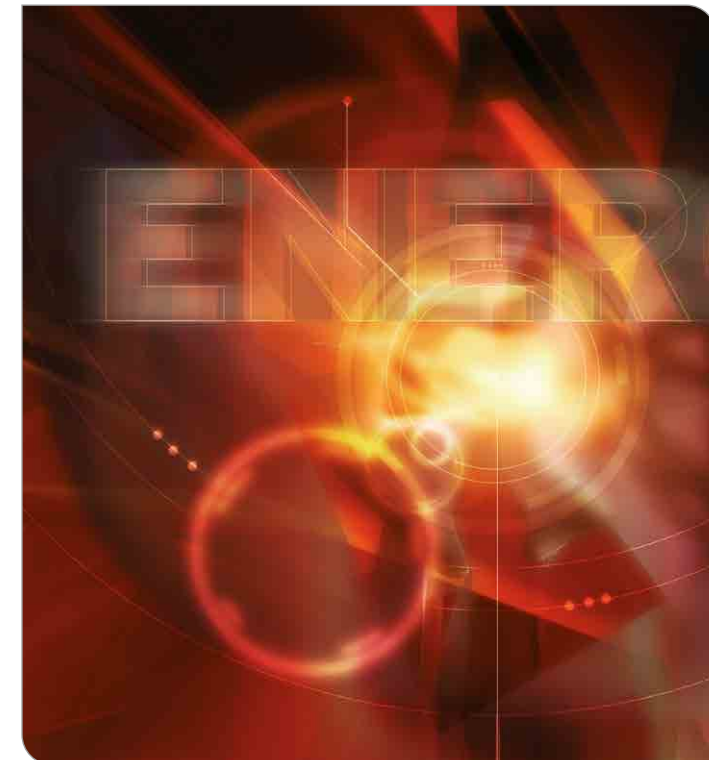
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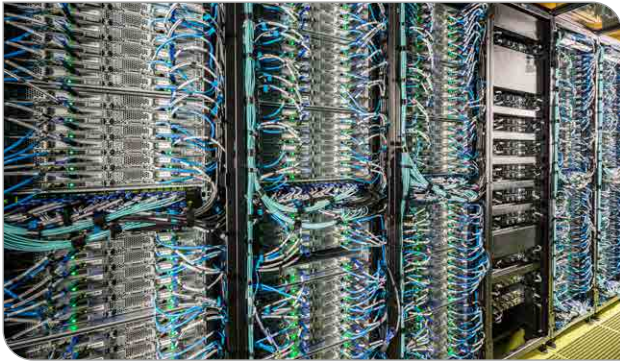
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KIT ENERGY CENTER

Karlsruhe Institute of Technology (KIT) – the research university in the Helmholtz Association – combines research, higher education and innovation at the highest scientific level.

As one of Europe's largest energy research institutions, the KIT Energy Center pools the energy research activities of KIT as well as renowned cooperation partners and acts as a competent contact to politics, economy and society.



JOINTLY SHAPING THE ENERGY TRANSITION

The KIT Energy Center comprises 60 institutes of KIT. With 1 800 scientists and technical staff and an annual budget of 250 million Euro it follows an interdisciplinary approach to shape the transition towards a sustainable energy system in Germany.

It operates in the three strategic fields

- Energy Efficiency
- Storage, Grids and Systems
- Renewable Energies

The KIT Energy Center engages in international cooperation and promotes young scientists.

OUR TOPICS

KIT's energy research focuses on the development of an overall concept for the energy mix of the future with competences in engineering, economics, natural and social sciences. The activities are clustered in seven topics.

■ Energy Conversion

Technologies for all types of conversion of natural energy resources into end-user energy with the main focus on combustion.

■ Renewable Energies

Solutions for an energy system based on renewable sources such as biomass, geothermal energy and solar power.

■ Energy Storage and Distribution

Innovative technologies for energy storage and efficient grid structures for energy distribution.



■ Efficient Energy Use

Concepts for reducing energy consumption in industrial processes as well as in the construction and operation of buildings.

■ Fusion Technology

One of the world's leading laboratories along with the best equipment for studying and developing fusion technology.

■ Nuclear Safety Research

Expert knowledge essential in order to ensure the safety of nuclear power plants and the safe disposal of radioactive waste.

■ Energy Systems Analysis

Models for energy systems, cross-cutting aspects and interactions with technical, social, economic and environmental change.