

# Energy and Environmental Technologies.

Environmental protection, resource efficiency, green tech — leading technology from Thuringia.

Thuringian companies are sought-after innovation drivers and leading technology and service providers in the energy and environmental sectors. Rising global demand and trailblazing product innovations are opening up new business areas and markets.

Thuringian quality is in high demand! This is particularly true for the traditional areas of environmental technology: environmental analysis and measurement technology, recycling and waste treatment. Energy efficiency technologies are experiencing dynamic growth worldwide, as is environmentally friendly energy conversion, transportation and storage.



In Thuringia, we are working on the missing links – such as innovative energy storage and hydrogen applications – for the successful implementation of the energy transition in Germany and worldwide.

#### Thuringia's energy and environmental technology industry at a glance:

- > About 800 companies
- > 11 research institutes
- > 8 universities
- Significant expertise in battery technology and hydrogen
- Market and technology leaders Enercon, Siemens and CATL are located in Thuringia
- > Central service and training location

#### Seize the opportunities that our region offers.

Benefit from a prime location in Europe's heartland, highly skilled workers and a worldclass research infrastructure. We provide full-service support for any investment project – from site search to project implementation and future expansions.

Please contact us.

www.invest-in-thuringia.de/en/industriestechnologies/environmental-technologies/





# Interdisciplinary training – the keystone of success.

Thuringia invests in the training and professional development of skilled workers early on so that your company can develop innovative products for the green tech market of tomorrow. This maintains the competitiveness of Thuringian companies in these times of global climate change.

# Interdisciplinary university education

Thuringia's universities offer countless interdisciplinary degree programs that effectively prepare students for the fast-moving energy and environmental technology market.

#### **Energy networks and systems**

Ilmenau University of Technology combines research expertise in the fields of energy and systems engineering and has extensive experience in the operation, design and analysis of electrical energy systems.

#### **Environmental engineering**

The Bauhaus University of Weimar develops innovative solutions in the fields

of energy, transportation, water and waste. It focuses on the forward-looking issues of environmental action, resource conservation, mobility and climate change in order to make them sustainable and socially viable.

#### **Green photonics**

The Friedrich Schiller University teaches profound skills and knowledge in experimental and theoretical optics and also offers specialized training programs in various subfields of optics. As a result, highly efficient technical applications of light drive the development of environmentally friendly solutions in Jena's high-tech environment.





"As a leading provider of hydrogen filling stations, Maximator Hydrogen offers innovative and reliable one-stop solutions to establish the use of hydrogen as a climate-friendly alternative to fossil fuels. Our team of 170 highly motivated employees brings together unparalleled expertise and continuously works to develop new technologies to proactively help achieve the 1.5 degree target."

Mathias Kurras, CEO | Maximator Hydrogen

# Fertile ground for innovation.

Not only does Thuringia have an outstanding research infrastructure, it also places a premium on building strong relationships between business and science.

#### Selected research institutes

- Battery Innovation and Technology Center (BITC), Arnstadt
- Center for Energy and Environmental Chemistry (CEEC), Jena
- CiS Research Institute for Microsensors, Erfurt
- Fraunhofer Institute for Ceramic Technologies and Systems, Hermsdorf Branch (IKTS)
- HySON Institute for Applied Hydrogen Research, Sonneberg
- IAB Weimar Institute of Applied Construction Research
- Institute for Renewable Energy Technology (in.RET), Nordhausen
- Advanced System Technology Branch Fraunhofer IOSB-AST, Ilmenau
- Thuringian Energy Research Institute (ThEFI), Ilmenau
- Thuringian Innovation Center for Recyclables (ThlWert), Nordhausen
- Thuringian Institute for Textile and Plastics Research (TITK), Rudolstadt

#### Missing links

In Thuringia, we are researching the missing links of the energy transition: electrical and thermal energy storage, sector coupling as well as hydrogen production, transportation and storage. Flagship projects include research at Fraunhofer IKTS into sodiumion batteries for stationary energy storage and the peerless redox flow batteries based on po-

lymers developed at the CEEC. New players emerging along the hydrogen production value chain include application-oriented research hubs such as Hy-SON and new research programs at the Ilmenau University of Technology for producing green hydrogen directly from solar water splitting.

### Thuringian Energy and GreenTech Agency (ThEGA)

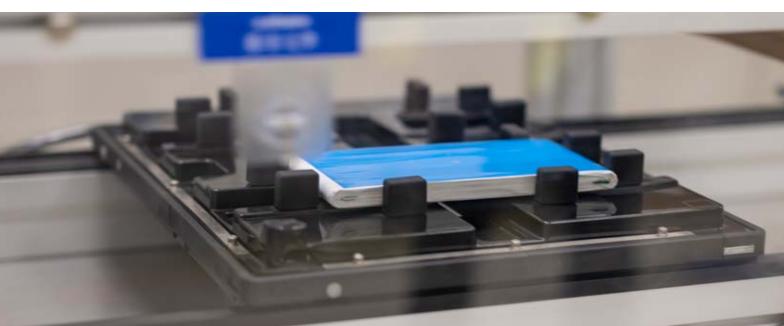
As Thuringia's state energy agency and a service provider for the state government, the Thuringian Energy and Green-Tech Agency (ThEGA) advises municipal governments, companies, community energy initiatives and policymakers without any market or manufacturer bias. Its mission is to support the continued expansion of renewable energy, identify ways to achieve maximum re-gional value generation with renewable energy and help companies and municipal governments capitalize on energy conservation and savings opportunities. www.thega.de

#### ThEEN e.V.

The Thuringian Renewable Energy Network (ThEEN) is the umbrella organization for the renewable energy, energy efficiency and energy storage sector in Thuringia. With its member associations as well as numerous companies, research institutes, municipalities and

institutions, it represents and concentrates the know-how of more than 80 companies. One of ThEEN's special missions is to support relevant political processes and decisions at the state level. www.theen-ev.de







## Thuringia: where success is made.

Thuringia offers outstanding opportunities for players in the energy and environmental technology industry to innovate and grow, as illustrated by the many companies who have expanded or relocated here.

#### **OUNDIS GmbH**

Leading manufacturer of devices for reliable heat and water metering. The company develops system solutions based on electronic meters and components that can be mixed and matched as needed. OUNDIS products are used in more than 8 million residential units in over 30 countries.

#### ifesca GmbH

ifesca GmbH's mission is to digitalize the energy transition. Processes are mapped using AI-based intelligent forecast management that delivers the best possible forecast results automatically in real time. Ever-increasing data volumes from energy companies are processed ever more quickly and reliably.

#### **MAXIMATOR Hydrogen GmbH**

MAXIMATOR Hydrogen is a leading manufacturer of hydrogen filling stations. The company develops and builds climate-neutral infrastructure right in Germany's green heartland.

#### **FNFRCON**

ENERCON, one of the world's leading wind power companies and the German market's number one in this sector, built its central service and logistics hub in Gotha, Germany. This location will handle all its service activities throughout Europe. It is also home to a large training center where service technicians are trained to maintain and repair the latest generation of wind turbines.

#### **SCHACHTBAU NORDHAUSEN GmbH**

SCHACHTBAU NORDHAUSEN GmbH has traditional environmental engineering expertise in construction, steel, pipeline and plant engineering. The company's core competencies include the construction and outfitting of water management facilities such as wastewater treatment plants and pumping stations. It also converts and expands existing large-scale wastewater treatment plants, incorporating energy efficiency technologies and optimally using energy resources from wastewater and sewage sludge while minimizing CO<sub>2</sub> emissions.

adapt engineering GmbH & Co. KG, Nordhausen

Analytik Jena AG, Jena AUMA-TEC GmbH, Suhl

**CATT Contemporary Amperex Techno**logy Thuringia GmbH, Arnstadt Chemiewerk Bad Köstritz GmbH.

Rad Köstritz

EAS Batteries GmbH, Nordhausen EAW Energieanlagenbau GmbH, Westenfeld

**EPC Engineering & Technologies** GmbH, Arnstadt

**EuRec Environmental Technology** GmbH, Krayenberggemeinde

Eurofins Umwelt Ost GmbH, Jena Fugro Germany Land GmbH,

Nordhausen

HM Heizkörper GmbH Heating Technology, Dingelstädt Jena-Geos-Ingenieurbüro GmbH, Jena Kustan GmbH, Rudolstadt K-UTEC AG Salt Technologies,

Sondershausen

KYOCERA AVX Components GmbH, Föritztal

Leitec Gebäudetechnik GmbH, Heilbad Heiligenstadt

maxx-solar & energie GmbH & Co. KG, Waltershausen

OMROS Gesellschaft für Umwelttechnik mbH, Hildburghausen **SOKRATHERM GmbH,** Nordhausen Suncycle GmbH, Isseroda

UGN-Umwelttechnik GmbH, Gera

UST Umweltsensortechnik GmbH, Geschwenda

va-Q-tec AG, Kölleda



#### Your LEG Service

Our consulting services are free. Simply set an appointment with our experienced investor service team.

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