

Advancing Sustainable Space Technologies

Our mission promotes global innovation with local impact. We
We support space-related companies in Baden-Württemberg.
Württemberg.
We focus on water management, New Space, and intelligent
systems. Our vision establishes the region as a leading hub for
sustainable space technologies.

Gefördert
durch



Baden-Württemberg
**Ministerium für Wirtschaft,
Arbeit und Tourismus**

**THE
aerospace
LÄND**

Space innovation – Green transformation

SCROLL TO EXPLORE

Internationalization and market entry

The support space-related companies from Baden-Württemberg in expanding globally by increasing their international visibility and market reach. Through tailored support, we help companies secure new markets, establish strategic partnerships, and overcome the complexities of international trade law, regulatory requirements, and space-related economic challenges. Our support includes focus on high-potential areas, including satellite applications, space-related projects, and targeted business development to strengthen the global presence of Baden-Württemberg's space industry.

WATER MANAGEMENT NEW SPACE INTELLIGENT SYSTEMS

Water Management

Municipal application

Barren technology / platform

Agriculture

Irrigation systems



New Space

Energy

Advanced materials

Small satellite technology

Intelligent systems

Barren technology / platform

Robotics

Artificial intelligence



From Orbit to Earth:

High-Precision Satellite Tools



Hyperspectral Imaging

High resolution satellite imaging monitors soil surface temperatures and moisture.



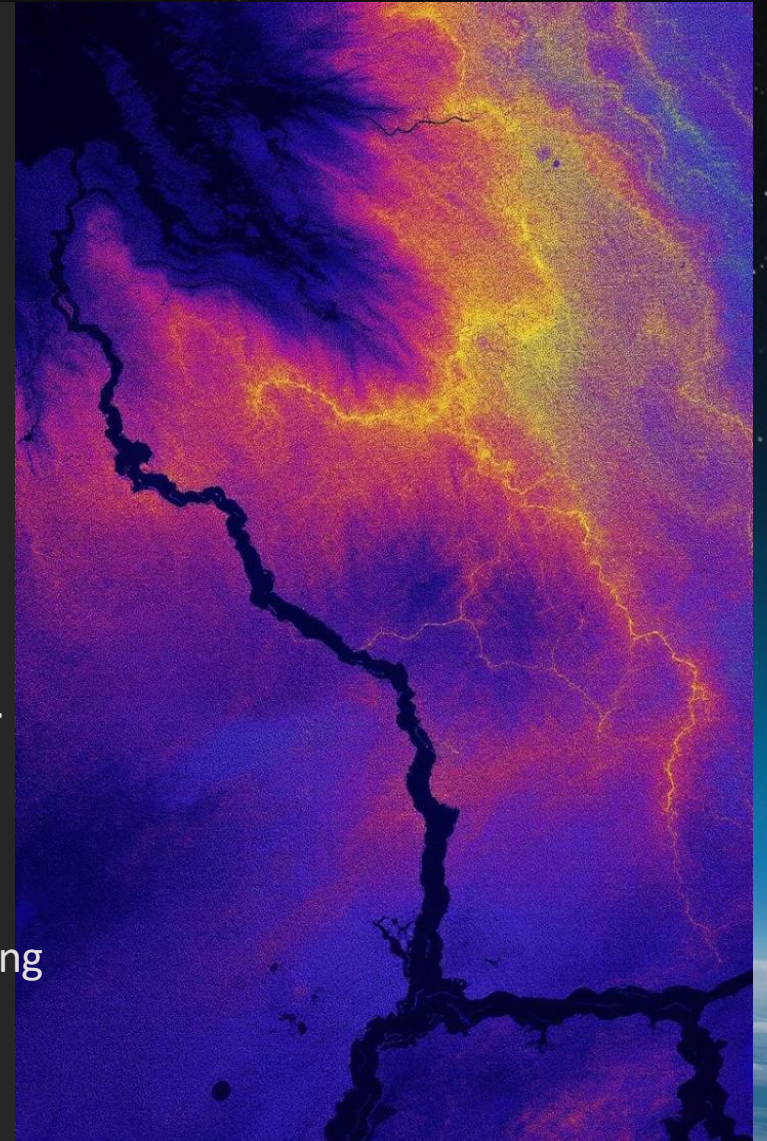
AI Pattern Recognition

Advanced algorithms detect climatic variations across landscapes.



Practical Applications

The technology informs precision irrigation and drought forecasting forecasting systems.



Soil Moisture Matters – Surface and Subsurface

Insights

Surface Monitoring

Microwave and radar satellites capture surface soil moisture. They provide increasingly detailed spatial and temporal resolution.

Subsurface Analysis

Cosmic-ray neutron sensing estimates moisture up to 50cm deep. This is the typical length of plant roots and represents a breakthrough for agricultural planning.

Practical Benefits

These measurements enhance our understanding of plant water availability. They inform crucial evapotranspiration dynamics models.

Tracking Groundwater Fluctuations with Centimeter Accuracy



Twin Satellite Detection

GRACE-like systems monitor minute gravitational changes.



Data Processing

Sophisticated algorithms translate gravitational data to water metrics.



Aquifer Analysis

Groundwater level variations are detected as small as 1 cm.



Stakeholder Action

Data becomes actionable insights for public and private entities.



Integrating Space, Soil, and Sustainability

Sustainability

Smart Irrigation Systems

The combination of local soil sensors, satellite data, and AI-powered forecasting. This optimizes water and fertilizer use throughout crop growth cycles.

Urban Greening

Vertical planting systems adapted from zero-gravity plant research. Growth-inhibiting technologies manage trees efficiently in urban settings.

Façade Greening

Sustainable building solutions cool cities and improve air quality. Space technology brings nature into urban environments.

Our Comprehensive Services





Thanks for your attention!

Please stay in Contact

Contact us



Dr. Tobias Adamczyk
Director Green Space Center



Marcin Bielecki
Head of Technology Green Space Center



Vanessa Seibold
Manager Green Space Center

