

# Geospatial & Environmental

Services & Solutions



Learn more

## Competence & Expertise

### Emergency & Crisis Management



### Clean Energy



### Security



### Land Management



### Utility Mapping



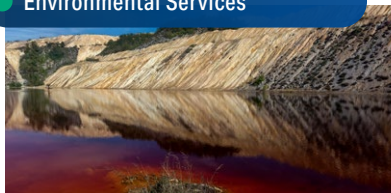
### Forestry



### Explosive Ordnance Survey



### Environmental Services



### Research & Development



## Who we are

At IABG, 70 experts collaborate closely across our locations in Berlin, Dresden, Trier, and Ottobrunn. Our interdisciplinary team includes geographers, geodesists, geoinformatics experts, environmental scientists, as well as cartographers, hydrologists, civil engineers, foresters, geologists, and landscape architects.

## What we do

Geospatial solutions, derived from a wide range of geodata and other information, are increasingly important for our modern life, have shaping impact on our societies and their development. Geoinformation turns into an integral part of everyone's life and is by far not anymore limited to commercial or industrial demands.

**Empowering Decisions:** Our services play their role in harnessing the boundless potential of geodata and geoinformation for society. Our interdisciplinary team benefits from its earned expertise in developing tailored solutions. We are effectively applying our geospatial expertise across diverse fields, from tackling complex security challenges to disaster and crisis management, all the way to be prepared for natural hazards.

A clear commitment to continuous research and application development is essential for tackling such a broad spectrum of topics. To learn more about the focus of our work, please have a look at our *Competence & Expertise* sketched on our website (see left, QR code on the back of this flyer).

**Revitalizing Abandoned Sites:** Our environmental services specialists focus on concepts and implementation of revitalization concepts of former military sites and abandoned industrial areas. Our solutions, containing e.g. innovative methods of soil remediation, help transforming dormant lands into vibrant spaces.

These services include:

- Explosive ordnance survey
- Environmental impact and risk assessment
- Environmental engineering
- Project management for comprehensive site clean-up

## Technologies we use

Earth observation data is manifold, includes different spatial resolutions and sensor strategies, can be captured from satellites, by plane or even on ground, represent single dates or timelines of several decades.

Thus, different technologies emerged to utilize the earth observation and adjacent data appropriately. Once the data is captured, different approaches are relevant and get picked by the IABG experts:

- Mapping and high level image analysis
- Fully- or semi-automatic remote sensing technologies, tailored to the sensor types available or chosen
- Classification techniques, such as machine learning (supervised or unsupervised) as well as deep learning (Artificial Intelligence)
- Strategies and workflow design addressing and serving the raster, vector or object domain
- Modelling of multiple criteria, including non-geospatial data, such as climate data, socio-economic information or information from social media

Depending on our clients objective, solutions are mono-thematic to complex and fulfil different quality criteria. Our clients receive valuable solutions for decision-making. To make the use of our work as intuitive and simple as possible, data and information obtained are made available via platforms and portals.

## Who we work for

Our projects address national and international users, whose business require direct or indirect implementation of geospatial reference data. In many cases, we work on behalf of EU programmes, acting as lead or partner in multiple international consortia.

The IABG team contributes its expertise worldwide and helps to jointly tackle global challenges and by developing innovative and sustainable solutions.

We work on behalf of

- European Commission (EC)
- Joint Research Centre (JRC)
- European Space Agency (ESA)
- International Financial Institutions (e.g. The World Bank)
- German Armed Forces and other military clients
- Public administrations
- Private sector

## Focus: Copernicus Emergency Management Service (CEMS)

Copernicus EMS On-Demand Mapping provides detailed information for regions facing emergency situations arising from natural or man-made disasters. Areas addressed are distributed globally, depending on the challenge and topic, the extent of the areas in focus varies significantly.

We provide geospatial information for both services: **Rapid Mapping** – responding within hours or days of a service request in order to support emergency management activities in the immediate aftermath of a disaster.

**Risk & Recovery Mapping** – preparing analyses in support of Disaster Management activities including prevention, preparedness, risk reduction and recovery phases.

## Focus: Clean Energy

Providing clean energy requires swift and creative measures that affect almost all sectors. Whereas in the international context provision of access can still be a major challenge, the sustainable transformation of infrastructure towards renewable energy sources is taking on a central role. The supply with renewable clean energy and the associated CO<sub>2</sub> reduction is an essential contribution to achieving the UN sustainability goals.

IABG supports the process of site analysis and potential investigation in clean energy sources. Our expertise spans wind, solar, hydro, hydrogen and biomass. Globally accessible satellite data provide the baseline for scalable spatial analyses to assess energy demand, resource availability, contextual conditions for infrastructure, and even risk analyses against natural hazards.

Our services serve supra-national, national, regional and local level and are thus valuable for different elements of the entire process chain and player related to clean energy.

**For more information please contact:**  
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