



DIGITAL INNOVATION UNIT

GFA Consulting Group is committed to ethical, inclusive and sustainable data practices. Guided by a human-centred approach and endorsing the Principles for Digital Development, GFA's Digital Innovation Unit (DIU) emphasises data solutions that meet the specific needs of clients and communities served. By harnessing the power of data and technology, the DIU aims at tackling the most pressing global challenges and building data literacy at the local level.

At its core, the DIU operates with a multidisciplinary, globally connected team that blends expertise in data science, IT, design, innovation, and policy. This interdisciplinarity and diverse skill set enables the DIU to address needs at every stage of the data lifecycle, spanning discovery, collection, analysis, as well as the effective and responsible application of insights. The team primarily works in the four areas outlined below.

“*DEVELOPING DATA SOLUTIONS FOR THE PUBLIC GOOD*”

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DATA SOLUTIONS FOR MONITORING AND BUSINESS INTELLIGENCE (BI)



The DIU advises and supports clients throughout all steps of the data value chain to unlock the full potential of their data assets for monitoring and tracking results. By collecting, transforming, and analysing complex datasets, the DIU team measures results and develops software solutions to streamline monitoring efforts.

- For the GIZ global programme Agrichains, DIU elaborated a management information system that enables the collection, validation, and analysis of data through dashboards at both country and global levels. The system facilitates the monitoring of progress against various indicator sets such as BMZ indicators, standard indicators, and SEWOH Indicators.
- In collaboration with the GIZ competence centre Education, Vocational Education, Labour Market, the DIU experts developed a Digital Tracing Solution (DTS) to follow achievements of

beneficiaries of vocational and higher education programmes. DTS is used to collect, store, analyse and visualise data in the context of retention surveys, and supports the measurement of employment effects as well as long-term training and qualification success.

- For the GIZ global programme Green Innovation Centres, the DIU team designed and executed a comprehensive data quality workflow that establishes clear processes, tools, and responsibilities to enhance the quality of data collection and analysis. In addition, the DIU's consultants developed and deployed data cleaning routines in Stata and R, generating standardised Excel reports for the monitoring team. These reports enable efficient identification of outliers, plausibility checks, and the spotting of missing values among other critical data quality assessments.

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DATA SCIENCE AND ARTIFICIAL INTELLIGENCE (AI)



The DIU leverages cutting-edge tools and methods to transform vast datasets into actionable insights and predictive models. By combining advanced analytics, machine learning, and artificial intelligence, the DIU empowers clients to forecast trends, optimise operations, and make data-driven decisions.

- In collaboration with the GIZ Data Service Centre, the DIU developed a chatbot for querying documents using large language models (LLMs) and natural language processing (NLP) methods to aid the analysis of climate policy documents.
- In partnership with GIZ and Carnegie Mellon University Africa, DIU's team of experts elaborated a curriculum to train junior

data scientists in machine learning for earth observation (ML4EO) methods. The objective was to develop ML4EO capacity in Rwanda for greater application in the agricultural sector.

- For the German Council for Sustainable Development (RNE), the DIU contributed to the development of an AI-supported web-crawler that analyses organisations' websites based on their contributions toward sustainable development goals. The selected organisations are subsequently invited to join a dedicated online platform to connect, exchange ideas, and work together towards achieving the Sustainable Development Goals.

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GIS AND REMOTE SENSING



The DIU deploys geographic information systems (GIS) and uses remote sensing to deliver in-depth spatial analysis and insights. The related in-house expertise enables clients to visualise, manage, and interpret complex environmental and geographical data for applications ranging from urban planning to environmental conservation.

- In collaboration with GIZ, the Egyptian General Organisation for Physical Planning, and the Urban Development Fund, the DIU's experts established a GIS system to identify and map urban degraded areas in the Greater Cairo Region that are prioritised for upgrading. The related services included the definition of

appropriate indicators and measurement techniques for identifying and establishing the system using open-source technologies and satellite imagery. The DIU's experts put a special focus on the training of technical staff to ensure sustainable benefits.

- The DIU team together with GIZ also developed a GIS system and a remote sensing methodology to quantify seasonal and interannual phenological changes in Ethiopian dry valleys under rehabilitation or protection. This specified the impact of installed irrigation structures on the surrounding vegetation.



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DIGITAL STRATEGY AND POLICY



The DIU supports and advises governments and organisations in the navigation of digital transformation. Experienced teams of consultant's aid in the formulation of forward-thinking policies and strategies that leverage digital opportunities while addressing risks. Related services encompass regulation, digital infrastructure, and creating frameworks for the responsible use of data. The DIU generates digital service frameworks that are accessible, secure, and beneficial for all citizens and the private sector.

- As part of the Policy and Regulation Initiative Digital Africa (PRIDA), GFA supported the African Union Commission in becoming more active in global and regional internet governance, setting up and operationalising its Digital Transformation Strategy for the continent, and harmonising digital policy in Africa.

- Through the InTouchAI.eu project, a team of experts supported the European Commission's Directorate General for Communications Networks, Content and Technology and the Service for Foreign Policy Instruments to foster international partnerships and dialogues regarding trustworthy AI. GFA supported the promotion of the EU's human-centric approach to AI and its translation into the AI Act as an internationally recognised benchmark.
- In 2024, the DIU began a project in Benin to develop a toolkit that will include a methodological guide for implementing a development environment for the digitalisation of public services, along with the necessary technical and legal specifications and requirements.



COLLABORATION OPPORTUNITIES

PARTNERS

The DIU is interested in expanding its network of specialised technical partners to complement its services and to collaborate in initiating and testing innovative approaches and new technologies. The DIU offers its expertise in international cooperation projects in all its business areas where proven digital technologies are scaled-up and new solutions can be piloted. Hence, digital technology solution providers interested in partnering in joint projects as a consortium member or subcontractor should contact the DIU.

Are you interested in researching or testing innovative approaches and new technologies?



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EXPERTS

The DIU is also a good address for independent experts interested in short- or long-term assignments in projects. The DIU is open to working with internationally experienced professionals with a specialisation in one of DIU's business areas. These concerns:

- **Opportunities in projects** on a fixed-term basis or for short-term project work
- **In-house opportunities** at GFA headquarters in Hamburg as a freelancer or permanent staff member of the DIU
- **Research opportunities** for researchers or PhD students interested in piloting digital solutions or investigating their impact.

In addition to technical expertise, English skills at a professional level and, ideally, fluency in one or more other languages such as French, Spanish, Portuguese, Russian, or Arabic are required.



Contact us to discuss
potential joint ventures