

# D. and C. ENGINEERING

URBAN PLANNING - LAND USE - G.I.S - DRONE OPERATIONS - M/E

## CONSULTING FIRM SPECIALIZING IN SPACE AND ENVIRONMENTAL ENGINEERING



[www.djigo-engineering.com](http://www.djigo-engineering.com)



[manager@djigo-engineering.com](mailto:manager@djigo-engineering.com)



Cité Plage - Former Prime Minister Road -  
PRK Extension - S6 N°1 - 1272st Floor -  
PO Box 3472 - Nouakchott, Mauritania

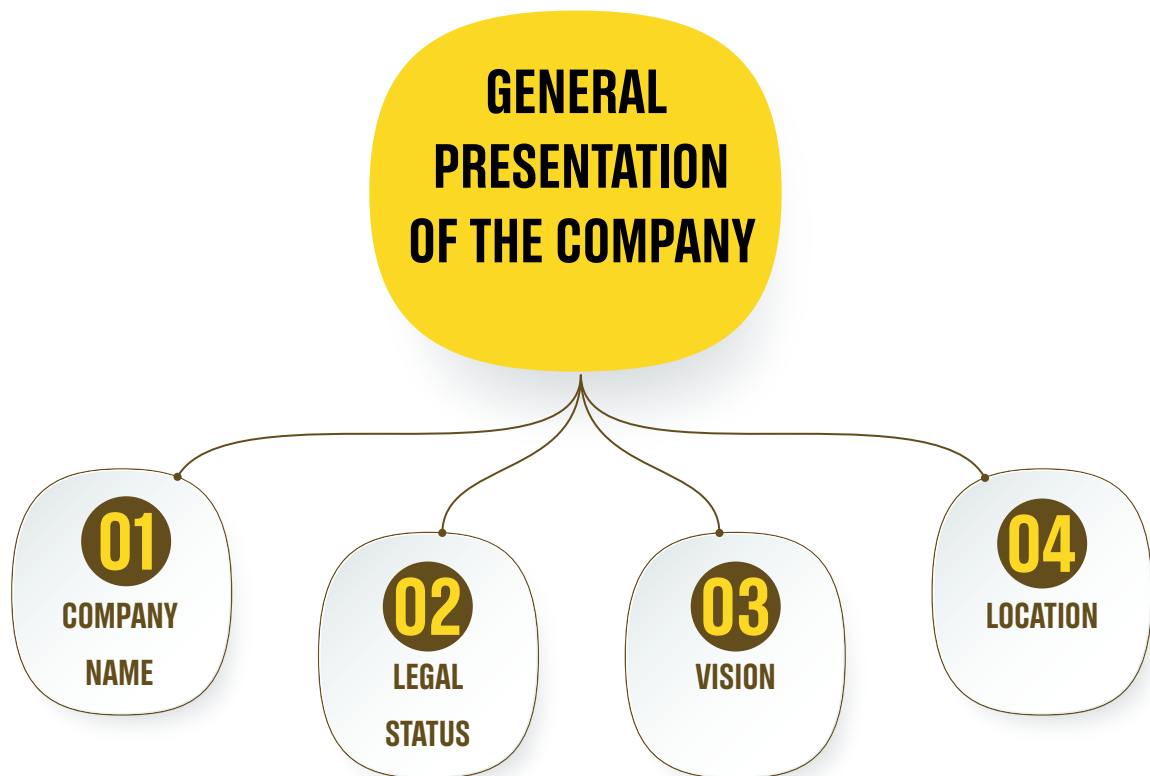
# Summary

- 01 Presentation of the consulting firm
- 02 Context and justification
- 03 Our areas of intervention
- 04 Technical resources and equipment
- 05 Intervention Methodology
- 06 Organization and team
- 07 Standards, quality and compliance
- 08 References and experience
- 09 Added value and advantages
- 10 Perspectives

# Office presentation

D. and C. ENGINEERING is a consulting firm specializing in high value-added technical services in the fields of drone topography, environmental studies, socio-economic analyses, and the monitoring and evaluation of development projects.

The company works with public institutions, NGOs, funders, private companies and local authorities.



The headquarters of D.&C. ENGINEERING is located at:

Nouakchott – Big Market, Islamic Republic of Mauritania

This strategic location in the heart of the capital allows for:

- Quick access to public institutions
- Close ties with technical partners
- A rapid intervention capability across the entire national territory

**D.& C. ENGINEERING** is constituted in the form SUARL (**Single-Member Limited Liability Company**) legal structure, in accordance with the legislation in force in the Islamic Republic of Mauritania.

This status guarantees:

- Liability limited to contributions
- Structured and regulated management
- Institutional credibility with technical and financial partners

D.&C. ENGINEERING's vision is to position itself as a benchmark in Mauritania and West Africa in the following areas:

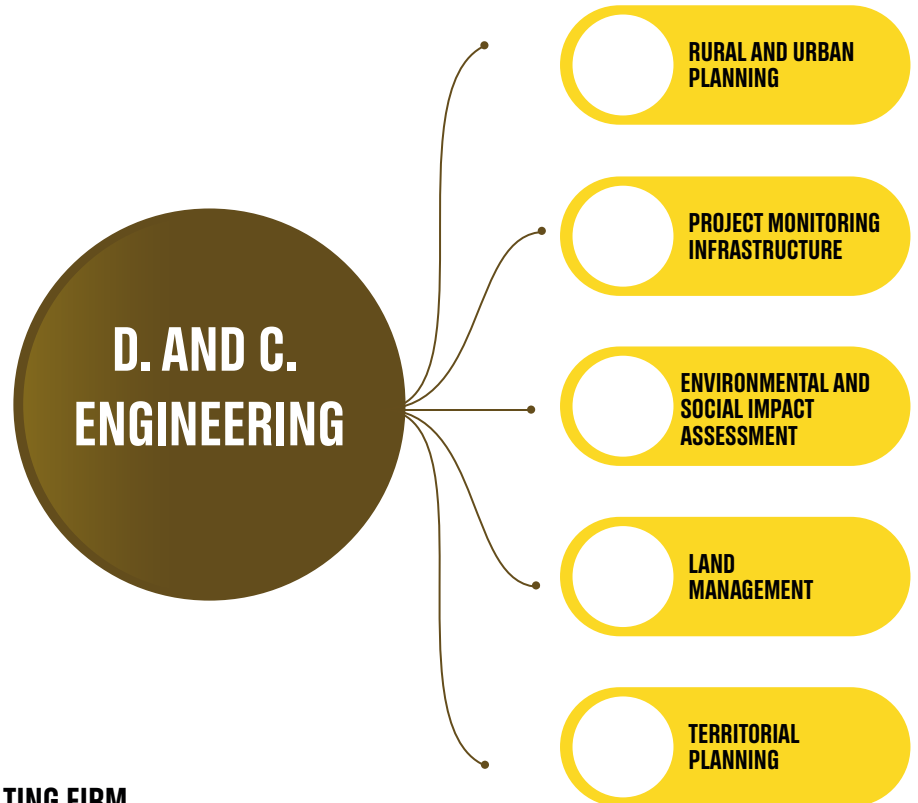
- **Topographic and Geospatial component** (RTK/Lidar drone surveys, mapping, GIS, modeling)
- **Environmental component** (impact studies, environmental assessment, management plans)
- **Socio-economic component** (field analyses, social impact studies, quantitative and qualitative surveys)
- **Project Monitoring & Evaluation component** (development of logical frameworks, SMART indicators, ex-ante evaluations, mid-term and ex-post)

# Context and justification

Mauritania has been experiencing a growing dynamic of public and private investment in the infrastructure, agriculture, mining, environment and territorial development sectors for several years.

In this context, the demand for accurate, reliable, and up-to-date geospatial data is becoming a strategic issue for:

Technological developments in the field of professional drones, particularly RTK and LiDAR systems, now make it possible to obtain topographic data with centimeter-level accuracy, while reducing intervention times and costs.



## JUSTIFICATION FOR THE CREATION OF THE CONSULTING FIRM

The effective implementation of projects in Mauritania requires reliable **mapping and topographic data** to serve as the basis for planning, development, and decision-making. However, the lack of accurate geospatial data and the insufficient integration of mapping, environmental considerations, socio-economic analysis, and monitoring and evaluation limit project performance. D. and C. ENGINEERING aims to address this need by placing **mapping and precision geomatics** at the heart of its work, while ensuring an integrated and structured approach to projects.

## STRATEGIC POSITIONING

### Our interventions aim to:

- To produce reliable technical maps for planning and development
- Providing accurate topographic data for project design
- Integrate environmental constraints from the planning phase
- Measuring results and impacts through structured monitoring and evaluation tools

## STRATEGIC POSITIONING

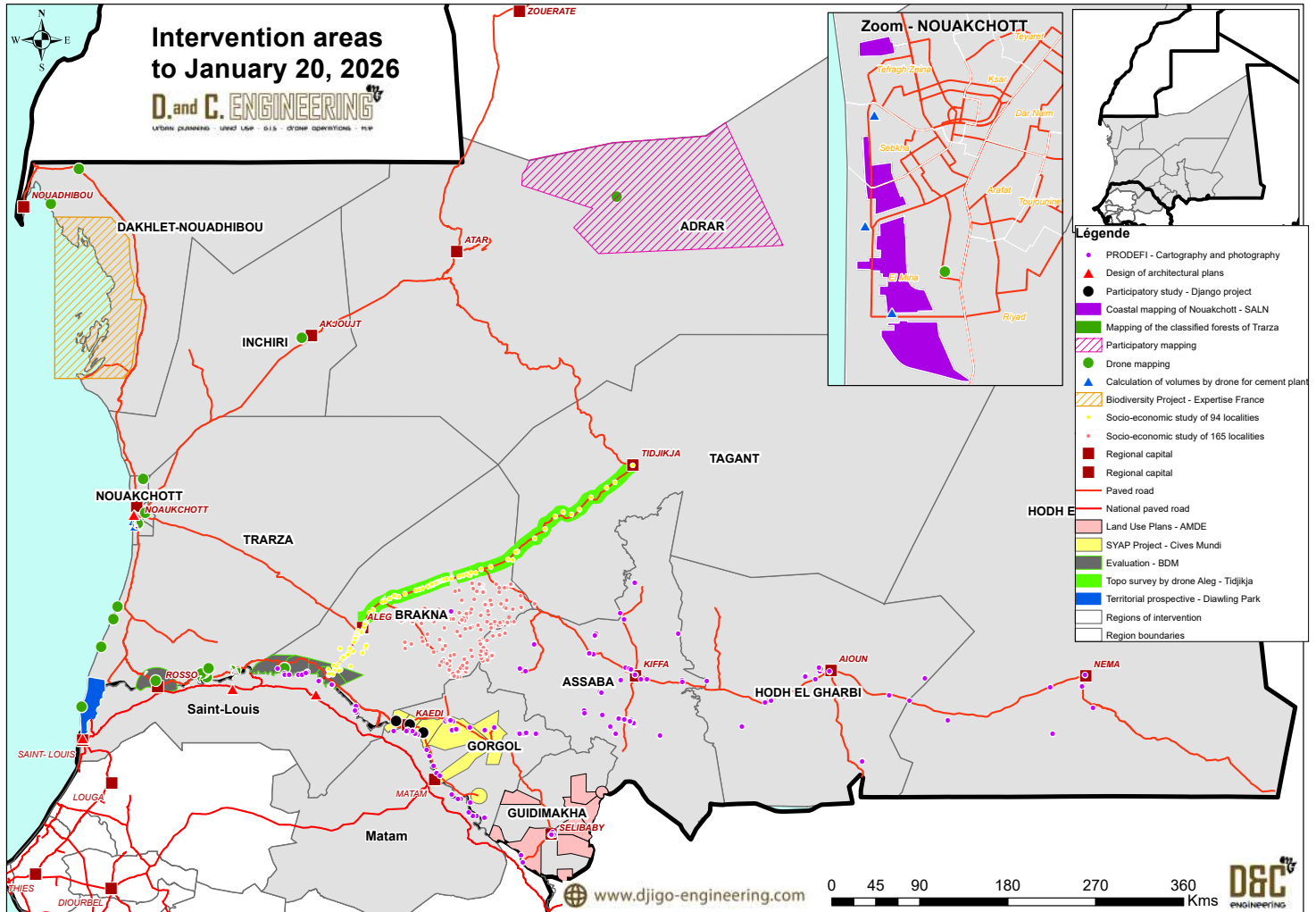
**D. and C. ENGINEERING** positions itself as a design office specializing in applied mapping and geomatics, capable of integrating:

Mapping and topographic surveys ➤ Environmental analysis ➤ Socio-economic study ➤ Monitoring and evaluation

# Our areas of intervention

D. and C. ENGINEERING is a design office specializing in high value-added technical services in the fields of drone topography, environmental studies, socio-economic analyses, and the monitoring and evaluation of development projects.

The company works with public institutions, NGOs, funders, private companies and local authorities.



**D. and C. ENGINEERING** operates nationally as well as in cross-border areas, particularly along the corridor linking Mauritania to Senegal.

The current intervention areas cover:

Nouakchott and its surroundings

The wilayas of Trarza, Brakna, Gorgol, Guidimakha, Assaba, Hodh Ech Chargui, Hodh El Gharbi and Adrar

The main structural road axes (national corridors)

Border areas and the adjacent Senegalese territory

The interventions carried out in these areas include:

- Topographic and cartographic surveys by drone
- Mapping of corridors and linear infrastructure;
- Environmental and social studies
- Project monitoring and evaluation

# Technical resources and equipment

D. and C. ENGINEERING has state-of-the-art professional drones adapted for high-precision mapping and surveying missions.



- **DJI Matrice 400 RTK**

Multi-sensor industrial drone designed for complex missions, including LiDAR surveys, large-scale mapping and demanding technical operations requiring high stability and centimeter-level accuracy.

- **DJI Mavic 4 Enterprise RTK**

High-precision compact drone suitable for detailed topographic surveys, technical inspections, rapid missions and operations requiring high mobility in the field.

- **DJI Matrice 400 RTK**

Multi-sensor industrial drone designed for complex missions, including LiDAR surveys, large-scale mapping and demanding technical operations requiring high stability and centimeter-level accuracy.

- **DJI Mavic 4 Enterprise RTK**

High-precision compact drone suitable for detailed topographic surveys, technical inspections, rapid missions and operations requiring high mobility in the field.



### DJI D-RTK 3 Mobile Station

High-precision GNSS station enabling real-time (RTK) centimeter-level positioning. It guarantees the reliability and accuracy of topographic and cartographic data, particularly for surveys requiring advanced geodetic precision.

### Capacités de production cartographique

The equipment is used to produce:

- High-resolution georeferenced orthophotos
- Digital Terrain Models (DTM)
- Digital Surface Models (DSM)
- Scatter plots
- Thematic mapping
- 3D Modeling

### Outils de traitement et d'analyse

The office uses specialized software for:

- Photogrammetric processing
- LiDAR processing
- Geographic Information Systems (GIS)



# Intervention Methodology



## METHODOLOGY OF ENVIRONMENTAL AND SOCIO- ECONOMIC STUDIES

### 1. Preparatory Phase

- Documentary review
- Definition of indicators
- Development of data collection tools

### 2. Field data collection

- Quantitative surveys
- Qualitative interviews
- Direct observations

### 3. Analysis and interpretation

- Statistical processing
- Thematic analysis
- Identification of impacts

### 4. Formulation of recommendations

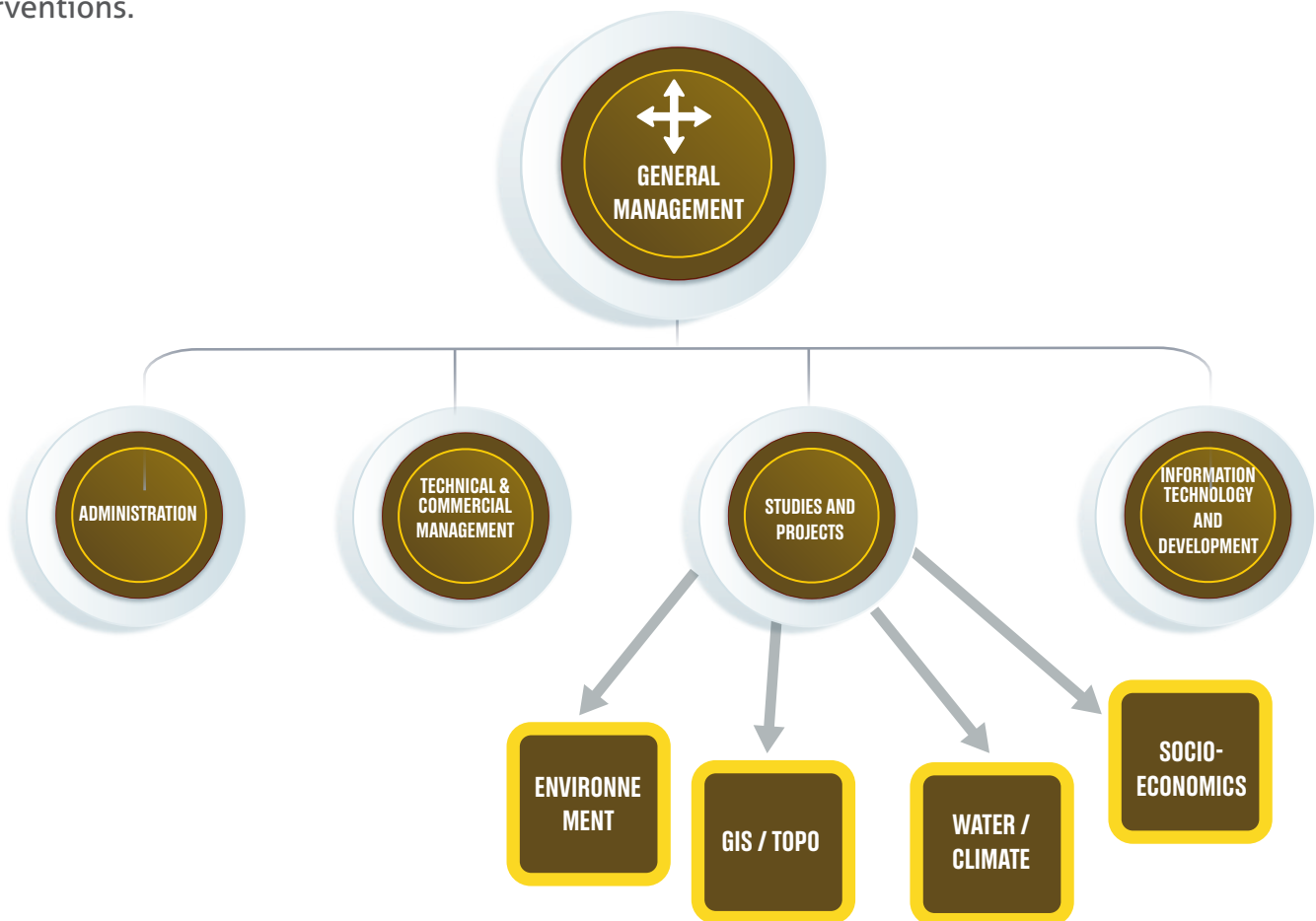
- Mitigation measures
- Management plans
- Strategic directions

## MONITORING AND EVALUATION METHODOLOGY

- Development of the logical framework
- Definition of measurable indicators
- Implementation of a monitoring plan
- Periodic data collection
- Midterm and final assessments
- Production of dashboards

# Organization and team

D.and C. ENGINEERING places quality, regulatory compliance and technical rigor at the heart of its interventions.



## INSTITUTIONAL COMMITMENT

The company promotes:

- Professional equality
- Capacity building
- Working in a multidisciplinary team
- Adherence to professional standards

## ORGANIZATIONAL STRUCTURE

The company operates according to a hierarchical and operational organization, structured around four departments:

- Administration
- Technical and Commercial Management
- Research and Project Management
- Information Technology and Development

## TEAM COMPOSITION

The team is made up of qualified professionals occupying various technical and administrative positions.

The structure adheres to a principle of fairness and inclusion, with balanced representation:  
50% men and 50% women,

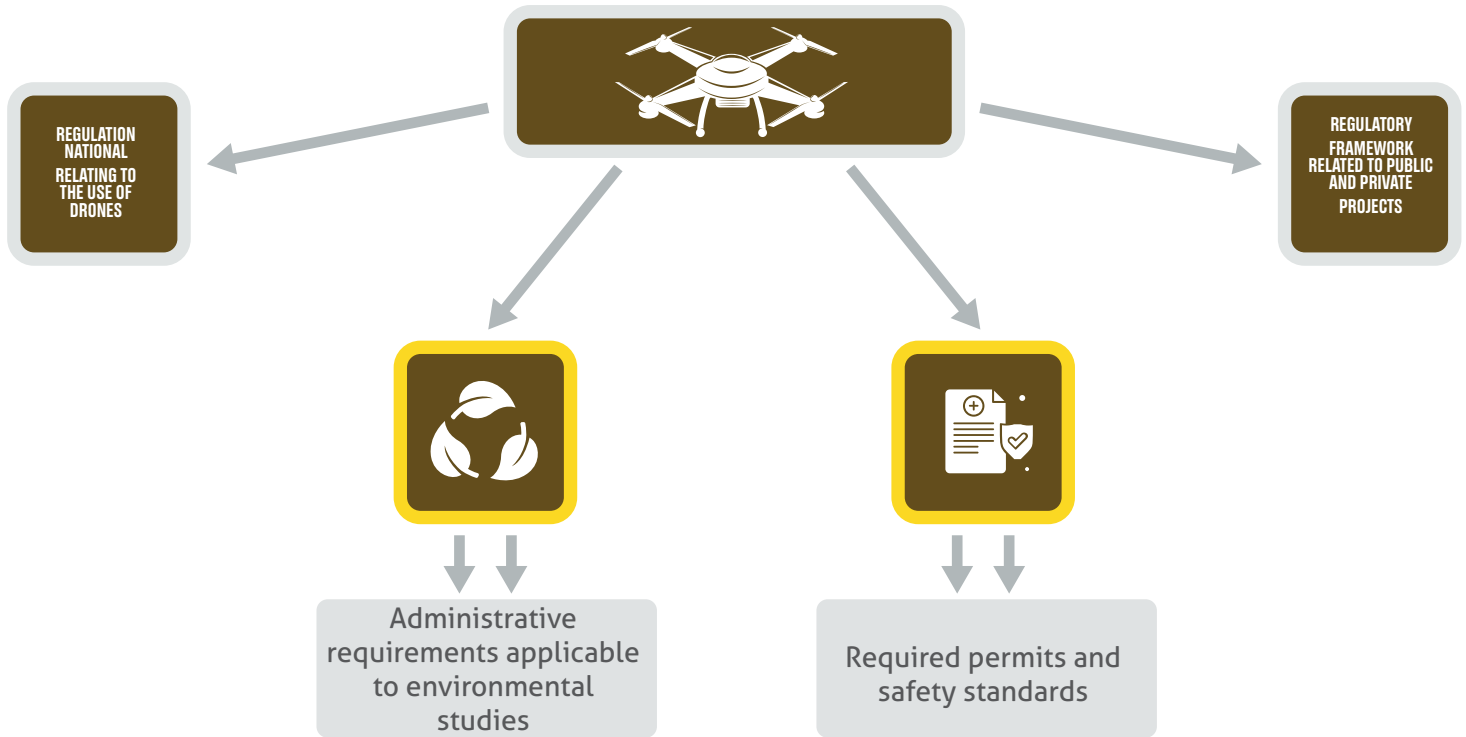
involved in all technical and management areas.

The profiles include, in particular:

- Surveying Engineers
- GIS and mapping specialists
- Socio-economic analysts
- Monitoring and evaluation experts
- Field investigators
- Administrative and logistics staff

# Quality and compliance standards

D. and C. ENGINEERING places quality, regulatory compliance, and technical rigor at the heart of its operations.



## QUALITY ASSURANCE

The office applies an internal quality control process which includes:

- Verification of technical parameters before mission
- Control of collected data
- Validation of results before delivery
- Secure data archiving  
This approach guarantees the reliability, accuracy and traceability

## DATA PROTECTION AND PROFESSIONAL ETHICS

D.& C. ENGINEERING s'engage à :

- Ensure the confidentiality of the information collected
- Protect geospatial and socio-economic data
- Respect the principles of objectivity and independence



# References and Experience

## MAURITANIAN CEMENTS

Drone survey for stock inventory (clinker, limestone, gypsum). 3D modeling and precise volume calculation to optimize industrial management.

## MAFCI

Topographic surveying and volume calculations for strategic stock optimization. Production of 3D models and technical reports.

## NOUAKCHOTT COASTAL DEVELOPMENT COMPANY

Drone survey and detailed mapping of a 2 600 ha area of the Nouakchott coastline. Production of DEMs and orthophotos for coastal protection and enhancement.



## PRODEFI

Detailed mapping of achievements and development of an interactive online platform. Production of visibility materials and updating of the GIS database.

## GIZ

Design of institutional maps according to the landlord's graphic charter. Strategic visualization of priority intervention areas.

## EXPERTISE FRANCE / SIC

Participation in the feasibility study of the project for the preservation of marine and coastal biodiversity, Gender & Inequality / Inclusion

## ESC / CWP

Surveyed by RTK drone and LiDAR for a green hydrogen project in the Southwest of Nouadhibou. Production of geospatial data for technical feasibility analysis.

## AURA ENERGY

Training – Handling of professional drones and photogrammetry for staff

## GREEN ENVIRONMENT CONSULTING

Topographic survey and analysis of environmental impacts around the Port of Ndiago. Development of mitigation measures and mapping of sensitive areas



## ALIANZA POR LA SOLIDARIDAD

Identification of income-generating initiatives integrating a gender perspective. Mapping of green economic activities and market analysis.

## MINISTRY OF THE ENVIRONMENT – IMPADRA

Design of institutional maps according to the landlord's graphic charter. Strategic visualization of priority intervention areas

## SAVE THE CHILDREN

Training on the challenges of climate change and resilience strategies.

## ACTION AGAINST HUNGER

Implementation of an environmental and social screening for the Pastoral Emergency Support Project at the Hodh Chargui, Moughata de Bassikounoun and Adelbagrou levels.

## FOOD AND AGRICULTURE ORGANIZATION (FAO)

Expertise in sustainable land management and delimitation of the gum arabic belt. Participatory consultations and production of detailed land references.

## ANSADE / HISWACA / MEDD

Implementation of an analysis and alert system based on remote sensing. Integration of environmental data into the national information system



## AES CONSULTING ENGINEERS

Collection of quantitative and qualitative data via digital tools and GPS. Production of socio-economic analyses for a drinking water supply project

## GIVES MUNDI

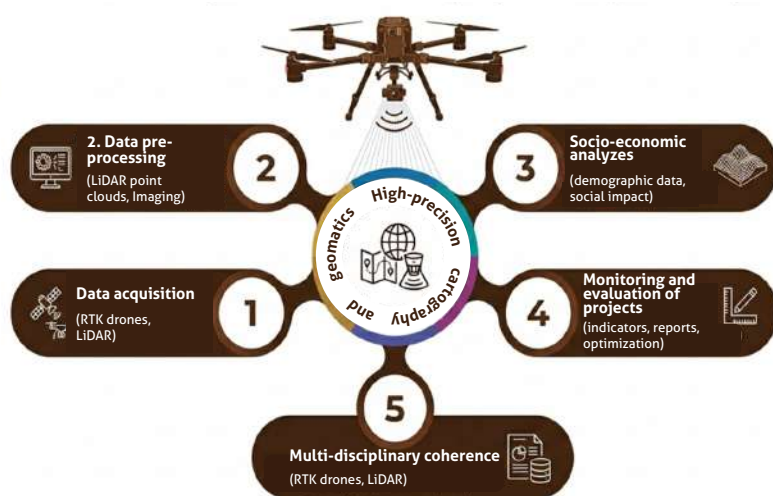
Development of a digital tool for the creation and operation of a commercial platform and training on the use of this tool

## WACA – CEFCODE / NEMA CONSULTING

Contribution to the development of a participatory territorial strategy for the Diawling National Park. Support in drone mapping and territorial analysis to guide the planning and sustainable management of the area

# Added value and advantages

## Core competence in cartography and geomatics



Mapping forms the technical foundation of the company.

The use of RTK and LiDAR drones makes it possible to produce high-precision geospatial data suitable for infrastructure, development, and mega industrial and environmental projects

## Advanced technological mastery

- Large-scale LiDAR surveys
- 2D and 3D modeling
- Industrial volume calculations
- GIS database design
- Digital field data collection tools

This technical capability allows for a reduction in execution times and an improvement in the accuracy of results.

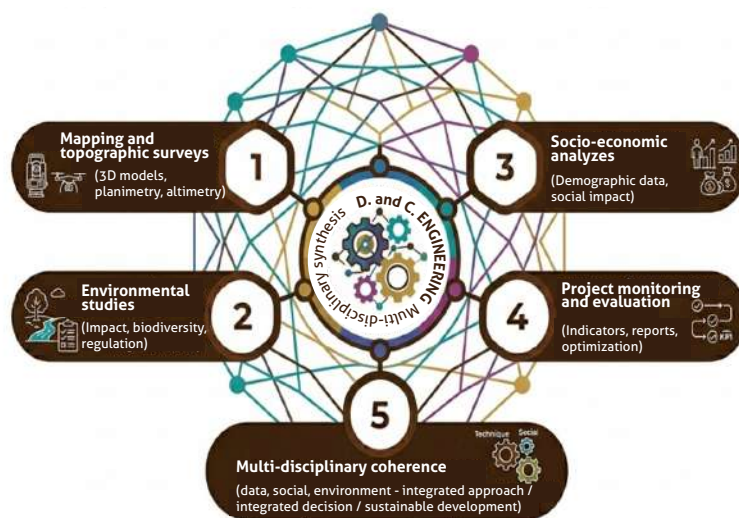
## Experience with national and international institutions

The company collaborates with:

- State agencies and projects
- public institutions
- International NGOs
- Funders
- Industries

This diversity strengthens its credibility and its ability to adapt.

## Integrated and multidisciplinary approach



## National coverage and operational capacity

Intervention across the entire Mauritanian territory, including desert, agricultural, coastal and strategic corridor areas, with the capacity for rapid mobilization of teams.

## Commitment to quality and fairness

- Equally balanced team (50% women / 50% men)
- Compliance with professional standards
- Confidentiality and methodological rigor

# Perspectives

**D. and C. ENGINEERING** has established itself as a specialized engineering firm whose core activity is based on **mapping and the production of high-precision geospatial data**, integrated with environmental, socio-economic dimensions and project monitoring and evaluation. Through the use of advanced technologies (RTK, LiDAR, GIS) and a rigorous methodological approach, the company provides reliable solutions, adapted to the requirements of public, private and institutional projects.

## The references obtained demonstrate:

- An ability to conduct large-scale technical missions
- A mastery of complex environments
- Integrated multidisciplinary expertise
- An operational presence at the national and cross-border level

## D. and C. ENGINEERING aims to:

- Consolidate its position as the national leader in mapping and geomatics
- Strengthening technological innovation in data collection and analysis
- Develop regional strategic partnerships
- To actively contribute to sustainable development and the modernization of technical practices in Mauritania

Through its commitment to quality, precision and professional rigor, D. and C. ENGINEERING intends to play a structuring role in supporting the country's structuring projects.

# They Trust Us

