



### LEADING THE WAY IN ASSET INTEGRITY MANAGEMENT & INDUSTRIAL SOLUTIONS

www.dgc-africa.com

DGC AFRICA, IN COLLABORATION WITH LOGIPROC,

PROVIDES TURNKEY ENGINEERING, DESIGN, & CONSTRUCTION SOLUTIONS TO THE MINING, METALS SMELTING, & MINERAL PROCESSING INDUSTRIES THROUGHOUT SUB-SAHARAN AFRICA

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At **DGC AFRICA**, our mission is to provide unparalleled asset integrity management and industrial solutions to industries across sub-Saharan Africa. We are thrilled to announce our collaboration with **LogiProc**, a globally active, South African-based engineering firm renowned for its expertise in process-driven, multidisciplinary solutions. Together, we're enhancing the capabilities and resources available to mining, metals smelting, and mineral processing industries, ensuring world-class support for every stage of your project.

# A PARTNERSHIP BUILT ON EXPERTISE & INNOVATION

Our collaboration unites decades of experience to offer a robust and comprehensive approach to engineering, design, and construction. With DGC AFRICA'S proven expertise in asset management and LogiProc's leadership in minerals processing and brownfields projects, we deliver end-to-end solutions tailored to your needs.

LogiProc's extensive experience in process engineering, material handling, and infrastructure development complements our commitment to high-quality, fit-for-purpose solutions. From greenfields to brownfields, we support your operations with innovative strategies, ensuring seamless project execution.



# COMPREHENSIVE SERVICES

#### THE FULL PROJECT LIFECYCLE

Whether you're initiating a new project or optimizing existing operations, we're equipped to guide you through every phase, from conceptual studies to plant operation and maintenance. Our services include feasibility studies, engineering design, procurement, project management, construction oversight, and commissioning.

What sets us apart is our flexibility. We can execute projects using standard contracting methodologies, such as EPC, EPCM, LSTK, BOO, and BOOT. Whether working as an independent engineering house or as an integrated part of your team, our approach is designed to align with your unique project requirements.



## DELIVERING RESULTS THAT MATTER

Together, **DGC AFRICA** and **LogiProc** prioritize safety, quality, and sustainability. We aim to provide solutions that maximize operational efficiency, reduce costs, and exceed client expectations. Our shared commitment to finding innovative solutions ensures that we can overcome even the most complex challenges, delivering results that drive growth and operational success.

Our expertise spans a wide array of areas, including process engineering, electrical systems, instrumentation, tailings management, and infrastructure. This depth of knowledge enables us to develop sustainable, high-performing solutions tailored to the demands of the mining and mineral processing industries.



# A SHARED COMMITMENT TO EXCELLENCE

At the heart of our partnership is a dedication to building lasting relationships. **DGC AFRICA and LogiProc** are aligned in our client-centric approach, working closely with you to understand your goals and ensure the solutions we deliver provide real value.

Safety and sustainability remain core to our operations. By integrating environmentally conscious practices into our designs and project execution, we support not only your operational success but also your corporate social responsibility objectives.

# **INDUSTRIES**



We understand that the complexities of mining, metals smelting, & mineral processing require innovative & reliable solutions.

THAT'S WHY OUR MULTIDISCIPLINARY TEAM OF ENGINEERS **IS DEDICATED** TO DELIVERING TAILORED ENGINEERING, DESIGN, & CONSTRUCTION SERVICES **THAT DRIVE** EFFICIENCY, SUSTAINABILITY, & LONG-TERM SUCCESS

FOR OUR CLIENTS





# **EXPERTISE** THAT DRIVES RESULTS

With extensive knowledge across Chemical, Metallurgical, Mechanical, Electrical, Instrumentation, Civil, and Structural engineering, our team is equipped to design, construct, and commission world-class metallurgical and process plants. Whether you're planning a new project or upgrading an existing facility, we bring the expertise and precision necessary to meet your unique challenges.



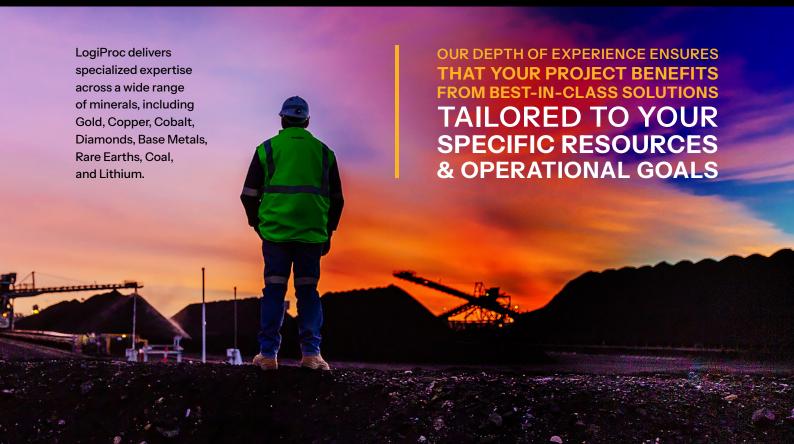
# COMPREHENSIVE UNDERSTANDING THAT DRIVES RESULTS

From initial resource handling to final product processing, we provide specialized solutions for every stage of your operation, including:

- Material Handling: Stockpiling, reclaiming, and ROM (run-of-mine) handling.
- Processing: Crushing, screening, milling, gravity separation, flotation, leaching, adsorption, elution, and gold smelting.
- · Separation Techniques: Dense Media Separation (DMS), thickening, filtration, and magnetic separation.
- De-Watering Processes: Advanced methods to optimize water usage and resource efficiency.



# A BROAD SPECTRUM OF **MINERAL KNOWLEDGE**



# **BEYOND PLANT DESIGN**

#### SUPPORTING YOUR ENTIRE OPERATION

Our capabilities extend beyond plant design and commissioning. We also provide:

- · Water and Effluent Treatment: Solutions to optimize environmental performance.
- Operations and Maintenance: Enhancing plant reliability and efficiency.
- Infrastructure Development: Supporting sustainable and scalable operations.



# WHY PARTNER WITH DGC AFRICA & LOGIPROC

#### A PARTNERSHIP THAT WORKS FOR YOU

Our collaboration with LogiProc allows us to provide a seamless, end-to-end project experience. Whether you're initiating a new venture, upgrading an existing facility, or ensuring the continued efficiency of an operational plant, our combined expertise ensures every phase of your project is executed with precision.

#### **END-TO-END PROJECT EXECUTION**

From feasibility studies to plant operation, we provide an extensive range of services:

- Feasibility Studies: Gain insights into your project's potential through comprehensive conceptual, pre-feasibility, and bankable feasibility analyses.
- Engineering and Design: Leverage cutting-edge technologies like 3D CAD modeling and advanced process simulations to create designs that minimize site changes and optimize functionality.
- Procurement and Construction Management: Ensure that every component of your project from materials to systems - is sourced, built, and installed to meet stringent quality and efficiency standards.
- Commissioning and Plant Operations: Trust our multidisciplinary team to oversee the smooth start-up and ongoing performance of your facility, ensuring safety, compliance, and peak operational efficiency.

#### A TAILORED APPROACH TO PROJECT EXECUTION

We're comfortable working as an independent engineering house or as part of your project team. Our flexible contracting models – including EPC, EPCM, BOO, and others – ensure we can meet your unique requirements. This adaptability extends to both greenfield and brownfield projects, where our innovative problem-solving ensures we deliver results that exceed expectations.

# **ENGINEERING SERVICES**

#### **PROJECT INITIATION & DEVELOPMENT**

LogiProc's expertise in project initiation and development sets the foundation for successful engineering solutions. We collaborate with our clients from the conceptual stage through to pre-feasibility and bankable feasibility stages and up to implementation.

#### Our team of professionals offers a range of engineering services, including:

- Conceptual/scoping studies
- Desktop feasibility costings
- Pre-feasibility and bankable feasibility studies
- Classed costing studies
- Study management

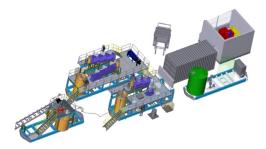
- Test work scoping and management
- · Conceptual flow sheet, mass balance, and plant layouts
- CapEx and OpEx estimating
- Due diligence
- Support for the financing process



OUR FLEXIBILITY & UNCONVENTIONAL THINKING ENABLE US TO FIND SOLUTIONS WHERE OTHERS MAY SEE A DEAD END. WHETHER LEADING THE STUDY OR OPERATING AS PART OF THE CLIENT'S TEAM, WE ARE **COMFORTABLE & CAPABLE** OF DELIVERING HIGH-QUALITY & COST-EFFECTIVE SOLUTIONS

#### **CONCEPTUAL / SCOPING STUDIES**

LogiProc's Conceptual/Scoping Studies involve a collaborative approach with clients from the initial stages of project development. Our team of experts carries out a detailed evaluation of the project, taking into consideration site selection, mineral or resource identification, project objectives, and key performance indicators. We analyse the technical and financial feasibility of the project and assess any potential environmental, regulatory, or social impact that may arise.





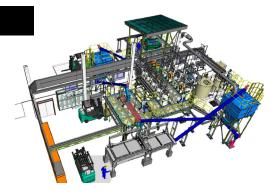
OUR GOAL IS TO PROVIDE CLIENTS WITH A COMPREHENSIVE UNDERSTANDING OF THE PROJECT'S POTENTIAL OUTCOMES, IDENTIFY POTENTIAL RISKS, & PROPOSE MITIGATION MEASURES TO ENSURE THE PROJECT'S SUCCESS

The results of the Conceptual/Scoping Studies provide the foundation for Pre-feasibility and Bankable Feasibility Studies, which we offer as part of our comprehensive engineering services.



#### PRE-FEASIBILITY & BANKABLE FEASIBILITY STUDIES

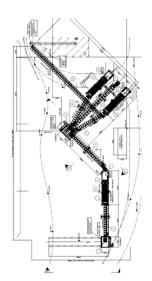
In addition to providing Conceptual/Scoping Studies, **LogiProc** also offers pre-feasibility and bankable feasibility studies to assess the technical, economic, and financial viability of projects. During the pre-feasibility stage, the team examines the technical aspects of the proposed project, such as the site location, infrastructure requirements, and potential environmental impact. The bankable feasibility study goes further and provides a detailed financial analysis, including capital and operating costs, financing requirements, and projected return on investment.



## THESE STUDIES ARE CRITICAL FOR INVESTORS & STAKEHOLDERS TO MAKE INFORMED DECISIONS ABOUT A PROJECT'S VIABILITY & POTENTIAL FOR SUCCESS

By conducting these comprehensive evaluations, LogiProc provides clients with the necessary information to determine the best options available and decide whether or not to proceed with the project.





#### **DETAIL ENGINEERING & DESIGN PACKAGES**

**LogiProc** provides multidisciplinary engineering and design services covering all aspects of project design, including process, mechanical, piping, civil, structural, instrument, electrical, and control engineering, using the latest CAD technology and 3D modelling software.

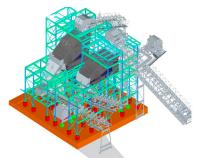
Detail Engineering & Design Packages involve developing detailed engineering drawings, specifications, and other documentation neces-sary for the construction and commissioning of a project.



Logiproc's multi-disciplinary team of engineers and designers use the output from the previous stages to develop the detailed design package, which includes

DETAILED SPECIFICATIONS FOR ALL EQUIPMENT & COMPONENTS REQUIRED FOR THE PROJECT, & DETAILED DRAWINGS FOR ALL SYSTEMS





LogiProc's designs are completed in 3D, minimizing site changes during construction, and its document control system ensures that all documentation is managed and controlled efficiently.

#### **PROJECT & CONSTRUCTION MANAGEMENT**

**LogiProc** provides project and construction management services that encompass planning, scheduling, and cost control to ensure projects are delivered on time, within budget, and to the desired quality standards. Our team works closely with clients to establish project objectives, manage project schedules, budgets, and resources while coordinating multiple teams of experts across different disciplines.

#### OUR PROJECT MANAGER OVERSEES THE OVERALL DIRECTION, COORDINATION, & EXECUTION OF THE PROJECT, & IS RESPONSIBLE FOR MANAGING PROJECT RISKS & QUALITY CONTROL

We use proven methodologies and tools, such as Gantt charts and resource allocation, to ensure projects are delivered on time and within budget. Our Construction Management team is responsible for managing all aspects of the construction process, including site preparation, material procurement, and construction supervision, to ensure projects are completed safely, efficiently, and effectively.



#### **PLANT OPERATIONS**

**LogiProc** provides plant operation services to clients, ensuring the best possible recovery and throughput from installed equipment while prioritizing safety, health, environmental, and quality responsibilities. Their team of engineers and operators ensures that plants are managed intelligently and effectively.

### LOGIPROC PROVIDES FLEXIBLE OPERATING & MAINTENANCE SOLUTIONS TAILORED TO EACH SPECIFIC PROJECT, ACCOMMODATING BROWNFIELDS PROJECT CHALLENGES





Their operating team ensures the best possible performance from the plant while minimizing downtime and maximizing productivity, providing ongoing support for plant maintenance, process optimization, and efficiency improvement.

With **LogiProc's** plant operation services, clients can rest be assured that their plants are running at optimal performance, maximizing productivity and profitability.

In addition to these engineering services, **LogiProc** also provides consulting and technical advice to clients. The team can assist with test work scoping and management, conceptual flow sheet, mass balance, and plant layouts, CapEx and OpEx estimating, due diligence, and support for the financing process.

# **PROJECT IMPLEMENTATION** & EXECUTION

As part of its turnkey engineering, design, and construction solutions, **DGC AFRICA and LogiProc** offer a wide range of project implementation and execution services. These services are designed to ensure that projects are completed on time, within budget, and to the highest possible standards of quality and safety.

#### PROJECT MANAGEMENT

Project management is a critical aspect of any successful engineering project. At **LogiProc**, the project manager plays a crucial role in ensuring that the project is executed according to the client's requirements and expectations.

The project manager is responsible for coordinating and managing the project team, including engineers, designers, and other professionals. They work closely with the client to establish project objectives, determine project scope, and manage project schedules, budgets, and resources.

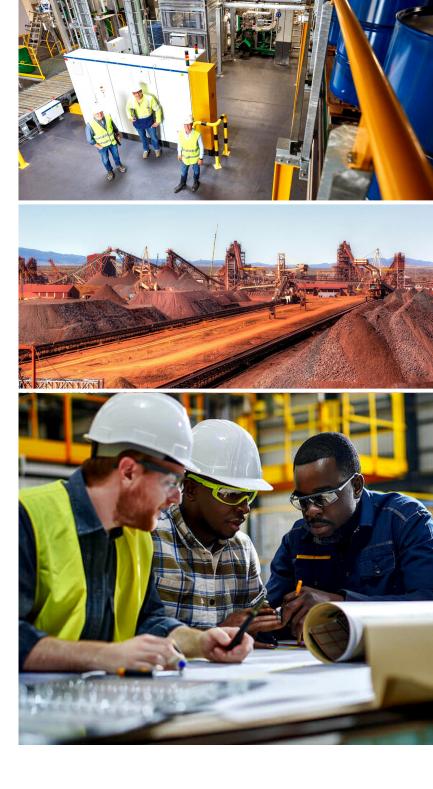
### LOGIPROC'S PROJECT MANAGEMENT SYSTEMS ARE BASED ON THE PRINCIPLES EMBODIED IN THE WELL-KNOWN PMBOK GUIDELINES

The project manager oversees all aspects of the project, including project planning and cost control, to ensure that the project is delivered on time, within budget, and to the highest possible standard. They also identify and manage project risks and implement quality control measures to ensure that the project meets or exceeds the client's expectations.

#### ENGINEERING & DESIGN

LogiProc's engineering and design team provides comprehensive solutions in project management, engineering, and design. The team comprises multi-disciplinary experts, including process, mechanical, piping, civil, structural, instrument, electrical, and control engineers. They utilize the latest technology and software to ensure high-quality designs and project delivery. THE TEAM UTILIZES THE LATEST COMPUTER-AIDED DESIGN (CAD) TECHNOLOGY & 3D MODELLING SOFTWARE TO PROVIDE DETAILED DESIGNS, SPECIFICATIONS, & OTHER NECESSARY DOCUMENTATION FOR THE CONSTRUCTION & COMMISSIONING OF THE PROJECT

**LogiProc's** designs are completed in 3D, which helps detect clashes between different systems and minimizes site changes during construction. **LogiProc's** document control system ensures that all documentation is managed and controlled according to industry standards and client requirements. The company's document controllers are familiar with using client-specified systems and procedures, as well as LogiProc's own in-house document control system.



#### PROCUREMENT

**LogiProc's** procurement process is tailored to meet the unique needs of each execution project. The company has established strong relationships with reputable suppliers and can source the best products and fabrication/construction services from anywhere in the world. To ensure efficient procurement, **LogiProc** develops a project-specific procurement strategy that utilizes its standard procurement systems as a base.



THE PROCUREMENT TEAM IS SUPPORTED BY APPROPRIATE EXPEDITING, QUALITY ASSURANCE CONTROL, & LOGISTICS SUPPORT TO ENSURE THAT MATERIALS & EQUIPMENT ARE DELIVERED ON TIME, MEET THE REQUIRED SPECIFICATIONS, & ARE OF HIGH QUALITY

By utilizing their extensive network of suppliers and developing customized procurement strategies, **LogiProc** ensures that execution projects are completed on time and within budget.

#### **CONSTRUCTION MANAGEMENT**

**LogiProc's** Construction Management team is responsible for ensuring that the construction phase of a project is completed efficiently, effectively, and to the highest possible standard. They work closely with the client to ensure that the construction process is managed intelligently, prioritizing safety, health, environmental, and quality (SHEQ) issues. The team is skilled in coordinating multiple teams of experts across different disciplines, including civil, structural, mechanical, electrical, and instrumentation, to ensure that construction projects are completed on time and within budget.



### LOGIPROC'S CONSTRUCTION MANAGEMENT TEAM IS RESPONSIBLE FOR OVERSEEING ALL ASPECTS OF THE CONSTRUCTION PROCESS, INCLUDING SITE PREPARATION, MATERIAL PROCUREMENT, SITE MOBILIZATION, CONSTRUCTION SUPERVISION, & SITE DEMOBILIZATION

They work closely with the client to ensure that the construction phase of the project is completed to their satisfaction, and that all relevant safety, health, environmental, and quality standards are met. **LogiProc's** team is experienced in coordinating complex projects of this nature, ensuring that all construction projects are delivered on time, within budget, and to the satisfaction of the client.

#### COMMISSIONING

Commissioning is a crucial stage in the lifecycle of any processing plant. At **LogiProc**, we understand that project-specific process and control knowledge is essential for efficient commissioning.

Our lead project process engineer takes on the role of commissioning manager, utilizing our well-developed commissioning systems, and is supported by our design team to minimize commissioning time.

OUR COMMISSIONING PROCESS INVOLVES A THOROUGH REVIEW OF THE PLANT'S TECHNICAL & ENGINEERING SPECIFICATIONS TO ENSURE THAT ALL SYSTEMS ARE CORRECTLY INSTALLED, & THAT THEY OPERATE AS INTENDED

Our commissioning team works closely with the client to ensure that all systems are commissioned in accordance with the agreed-upon schedule and that all relevant safety, health, environmental, and quality standards are met.

During commissioning, our team conducts tests to ensure that all equipment is operating as intended and that the plant is producing the required output. Once commissioning is complete, we provide training to the client's staff to ensure that they are familiar with the plant's operation and maintenance requirements. At **LogiProc**, our goal is to ensure that our clients' processing plants are commissioned efficiently and effectively, and that they are fully operational as quickly as possible.



#### **CONTRACTING MODELS**

**LogiProc** provides complete multidisciplinary engineering solutions for clients, either as an independent engineering company or as part of the client's project team. They can execute all or some of the project activities listed above, depending on the client's needs.

LOGIPROC HAS EXPERIENCE IN EXECUTING GREENFIELD & BROWNFIELD PROJECTS USING STANDARD CONTRACTING METHODOLOGIES SUCH AS EPC, EPCM, LSTK, BOO, BOOT, OR ANY VARIATIONS THEREOF

They are comfortable working with any contracting models that suit the client's requirements. With their expertise, **LogiProc** can provide tailored engineering solutions that meet the client's specific needs and ensure the project's success.

# NICHE SERVICES

LogiProc offers niche services in specialized areas of engineering and project execution.

#### **BROWNFIELD SPECIALISTS**

ICMI IMPLEMENTATION ASSISTANCE

#### **CYANIDE DETOX**

AMD & MINING EFFLUENT TREATMENT

#### **KNEWTM PROCESS**





#### **CYANIDE DETOX**

**LogiProc** has extensive experience in the field of Cyanide Detoxification (Cyanide Detox), which aims to reduce the Cyanide concentration within the tailings discharge, to ensure safe operations for employees and the environment. The methods of achieving this entails various destruction or dilution options, and LogiProc offers feasibility studies and implementation projects to achieve this.



#### **AMD & MINING EFFLUENT TREATMENT**

**LogiProc** specializes in the treatment of Acid Mine Drainage (AMD) as well as general mining and industrial effluent, offering a range of different solutions including Ion Exchange, Membrane Filtration, High-Density Sludge (HDS) with final water polishing, and the Potassium Nitrate Ex-Waste (KNeWTM) process.



#### **KNEWTM PROCESS**

**LogiProc** is the engineering partner for the developer of the patented and award-winning KNeWTM (Potassium Nitrate Ex-Waste) process, which is used to treat AMD and other mining/industrial effluent streams. The technology utilizes ion exchange and well-known industrial chemical processes to clean the water and turn the waste into valuable, saleable products. The process is flexible and can be configured to produce a number of different products, with high commercial value, Zero Liquid Discharge, minimized solid waste, and high-water recovery.



#### **DGC INTERNATIONAL**

E International@dgc-africa.com

2nd Floor, The AXIS, 26 Bank Street, Cybercity, Ebene, 72201, Mauritius

#### **DGC SOUTH AFRICA**

#### **Contact Person: Wynand Boshoff**

T +27 16 421 3720 <u>E</u> sales@dgrpint.com

10 Smuts Avenue, Vereeniging, 1930, South Africa

#### **REGIONAL OPERATIONS**

#### DGC NORTH-WEST

#### Contact Person: Gawie Hugo T +27 83 391 0531

E Northwest@dgc-africa.com

#### DGC KWA-ZULU NATAL

Contact Person: Denver Gounden T +27 73 161 9913 E Kzn@dgc-africa.com

#### DGC LIMPOPO

Contact Person: Walter Mulovhedzi T +27 76 896 7676 E Limpopo@dgc-africa.com

#### DGC ZAMBIA

#### Contact Person: Warren du Plessis

- T +260 761 83 2470
- **T** +27 82 319 8005
- E Zambia@dgc-africa.com

Plot 2394, Freedom Way, Mufulira

#### DGC DEMOCRATIC REPUBLIC OF CONGO

#### Contact Person: Warren du Plessis

- T +243 8996 49 493
- **T** +27 82 319 8005
- E DRC@dgc-africa.com

**Kolwesi Office:** 118 Avenue Kalima, Quartier Mutoshi, Commune Manika / Kolwezi

Lubumbashi Office: 199 Avenue Mubanzo Quartier; Golf Malela. Commune Lubumbashi, Province du Haut-Katanga, République démocratique du Congo

#### DGC MADAGASCAR

#### Contact Person: Abizar Pichori

- T +261 32 112 2122
- E Madagascar@dgc-africa.com

Lot Ivx 30 Bis Ankazomanga rue Dr Raseta Antananarivo, 101, Madagascar

#### DGC ZIMBABWE

#### **Contact Person:** Douglas Mhazo

- T +263 772 514 480
- E Zimbabwe@dgc-africa.com

311 Esap Way, Willowvale Harare, Zimbabwe

# **OUR OFFICES**



www.dgc-africa.com