



illibrium
Technologies

COMPANY PROFILE

Sustainability | Knowledge | Innovation | Value

www.illibriumtech.com



Hi-tech solutions, engineering a more sustainable future for all.

At Illibrium Technologies, we believe that the future belongs to those who use technology and engineering to create a more sustainable world.

Our passion for innovation, coupled with our commitment to sustainability and knowledge, drives us to develop cutting-edge solutions that have a positive impact on society and the environment. We invite you to join us in our mission to build a better tomorrow and experience the value of engineering a sustainable future.

”
**Tech that
loves nature**



+27 12 001 7896

www.illibriumtech.com

info@illibriumtech.com

Table of Contents

01.	Introduction - Who we are	P. 01-02
02.	Our Values & Business Ecosystem	P. 03-04
03.	Our Business Units	P. 05-07
04.	Featured Projects	P. 08-09
05.	Our Management Team	P. 11-12
06.	Our Contact Details	P. 13



**Sustainability is the key to the future.
It is not an option. It is a necessity.**

Jochen Zeitz

Introduction

Illibrium Technologies is a BBEE-1 entity with robust corporate social investment programmes.

Illibrium Technologies was founded in 2012 by Velile Manyisane, a Professional Civil Engineer, Entrepreneur and Environmental activist. The ethos of finding a balance between advancement efforts and technological innovations with preservation of the environment through minimal use of natural resources, is a driving philosophy informing how we operate, pioneered by our founder. Our name, Illibrium, an abridged take on the word 'Equilibrium', is symbolic of our ecological impact intentions of achieving a balanced existence with our natural ecosystems.

We operate across the following markets:

- Engineering consultancy & advisory
- Telecommunications services
- Infrastructure management systems
- Environmental management
- Landfill design & management
- Solid waste management
- Recycling
- Manufacturing

Illibrium Technologies has got a robust quality management system, health & safety management system and is in pursuit of ISO 9001 and ISO 55000 certifications.



OUR VALUE PILLARS

- Employment of methods and approaches that seek to achieve sustainable solutions
- Employment of methods and approaches that seek to incorporate indigenous knowledge in the formulation of solutions.
- Providing economical yet socially and environmentally acceptable solutions to our clients
- Incorporating research findings and outputs in formulating solutions for today's society problems.
- Applying dynamic evolving innovative technology driven solutions to meet our client needs.
- Meeting client's needs and adding value by employment of LEAN and EVM approaches.
- Utilize Illibrium Technologies' expertise, skills, tools and client knowledge, in optimizing clients infrastructure and institutional resources.
- Focusing on quality delivery and risk management;

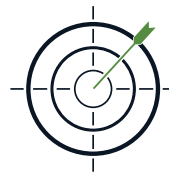
Our Vision

To be a leading firm in technological innovations and engineering practice for the circular economy.



OUR APPROACH

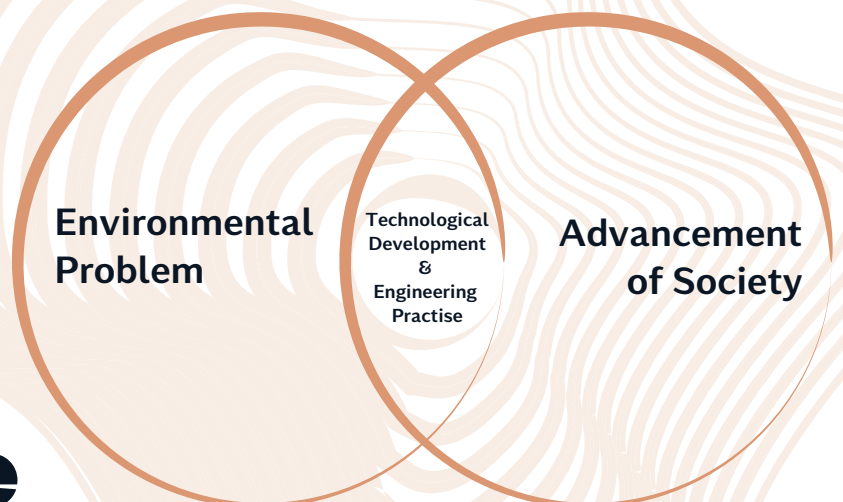
Illibrium Technologies (Pty) Ltd employs a balanced, multi-faceted and holistic approach in providing solutions that optimise our clients' resources and investments. This we do by growing our footprint within the circular economy and developing technological innovations, and cutting-edge engineering practices that strengthen and expands circularity.



OUR MISSION

We develop technology and practice engineering to solve an environmental problem and simultaneously contribute to the advancement of the society.

Our Methodology



OUR SLOGAN

Tech that loves nature



**” We do not inherit the earth
from our ancestors,
we borrow it,
from our children.**

Native American Proverb

Core Values

Illibrium Technologies values sustainability, knowledge, innovation, and value. These principles guide our company's culture, drive and commitment to delivering exceptional engineering services while prioritizing eco-conscious practices.

01 SUSTAINABILITY

We commit ourselves to strive for development, innovation and technological advancement without compromising the environment that surrounds us. In our ambition for greatness, we take responsibility for the preservation of the environment ensuring that we leave it in a state that will benefit future generations.

02 KNOWLEDGE

With devotion, we agree that it is upon us to advance the world by facilitating the formation of knowledge and contributing to its domain to enable the progression of sectors and industries. The aim of our work is to create knowledge that contributes to scientific research.

03 INNOVATION

Innovation is the future and we are challenging ourselves to be at the forefront of change by providing radical changes that will better the lives of the current generation and those to come. We continuously cultivate a corporate culture of creativity that has a futuristic view and promotes innovative business.

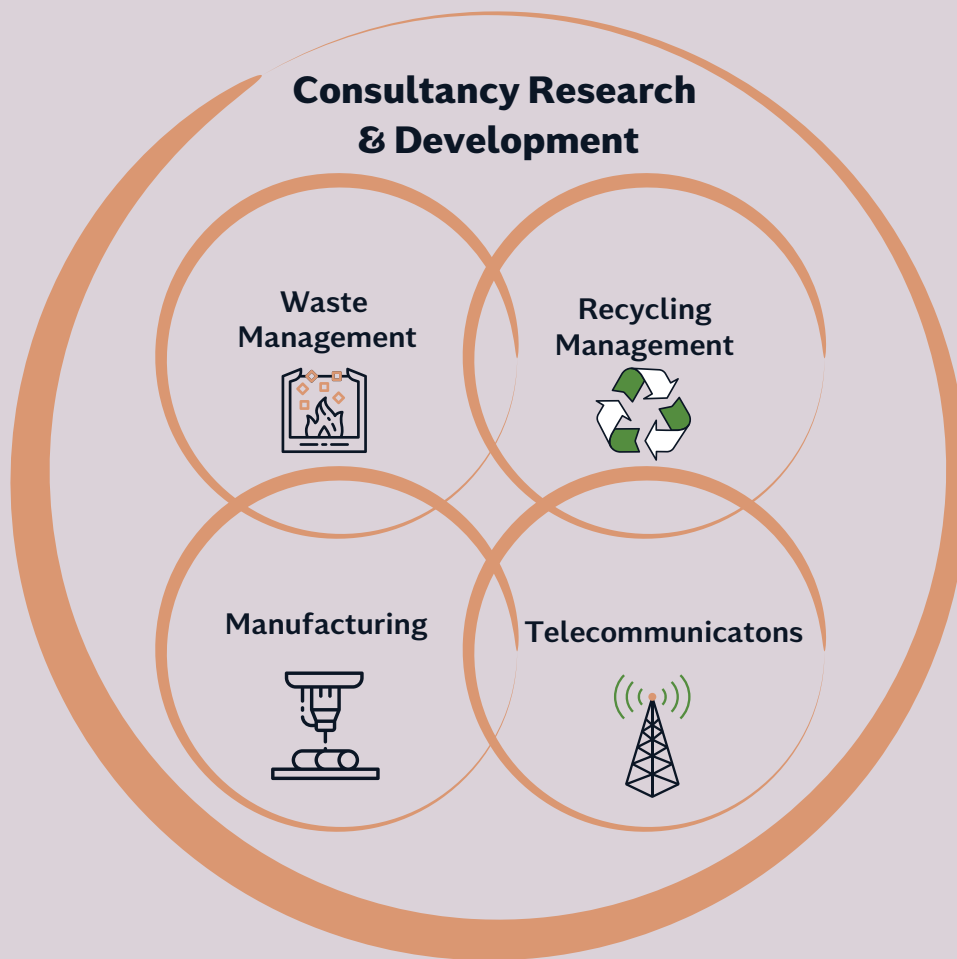
04 VALUE

The ability of our products and services to best serve the purpose for which they are intended highlights our value, as our aim is to best serve our client's needs to their utmost satisfaction.

Our Business Ecosystem

We believe that any business would be sustainable only if it is able to solve the problems of the society, and its solutions reflect the times. Our value propositions both sound business science as well as socio-geo-political context.

Illibrium Technologies has formulated a closed-loop business model ecosystem that is driven by circularity principles to contribute to development of high-tech solutions in the circular economy, eco-friendly engineering practise, and advancement of connectivity in Africa, among other important causes of the time.



Self-Sustaining Value Chain

Our company operates through five interlinked business units - waste management, consultancy, technical, recycling, and manufacturing. Three units - waste management, consultancy, and technical - are established and at varying stages of development. The other two units, recycling and manufacturing, are in the process of moving from conceptualization to feasibility study. Our goal is to eventually build and integrate all five units to create a circular entity within the intercontinental business environment.

Our Business Units

Consultancy & Research

The anchor of the business model ecosystem is the 'Consultancy & Research' business unit. Whose primary purpose is to offer consultancy & engineering advisory services to our clients across our markets and to continuously conduct research meant to expand our footprint across markets.

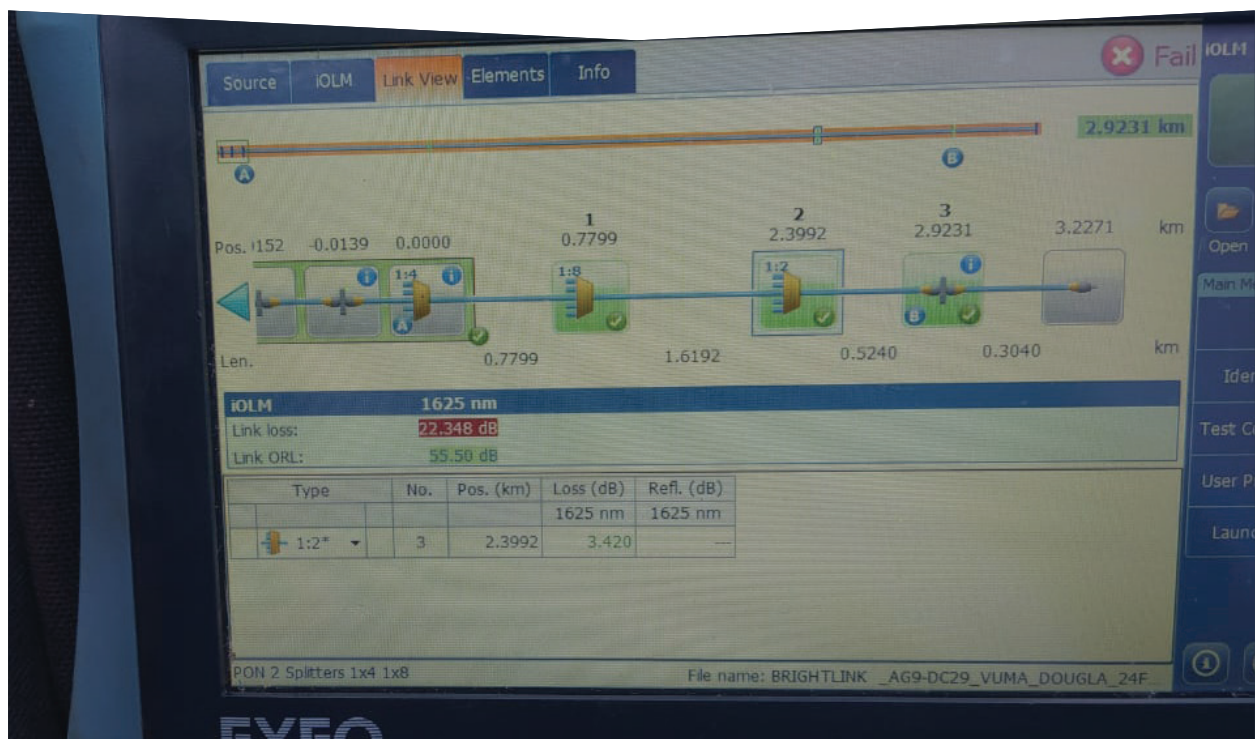
Infrastructure management can be put squarely on circularity, as the primary purpose is to optimize the performance of infrastructure assets, optimize the use of maintenance funds, minimize wastage, keep the infrastructure assets in use for as long as possible and push back the replacement date forward, minimizing the need for immediate extraction of natural resources. We have developed a software tool called InfraDbase (www.infradbbase.co.za) for this purpose.

InfraDbase - Infrastructure Management

As Illibrium Technologies, adding a Recycling Business Unit to our portfolio was a natural next step, considering the potential for recovered waste from our Waste Management BU to become a valuable input in our recycling processes. With a creative and innovative culture within the company, establishing and developing a recycling unit was an achievable goal.

Initially, we will focus on processing soft plastic and PET. We aim to research and explore the various recycling technologies available globally, and choose one that aligns with our organic growth principle.

Innovation in both recycling and manufacturing will be guided by our Innovation Diagnostic as outlined in the Innovation Canvas.



Waste Management

Our value proposition is to offer large facilities with waste management services at no cost to them. Our unique collection strategies and route planning are designed for maximum convenience to the facilities. We pride ourselves on our transportation and logistical planning, which makes our collection strategies effective, efficient, and cost-effective. This has given us a competitive edge over our competitors and placed us on an exponential growth path.

We separate waste into disposable and recyclable batches at the collection points, allowing us to harvest at least 60% of the waste we collect. The disposable batch is transported to a landfill site, while the recyclable batch, including cupboard, white paper, clear plastic, and plastic bottles (PET), is transported to our workshop for further sorting, separation, and bailing.

Recycling Management

As Illibrium Technologies, adding a Recycling Business Unit to our portfolio was a natural next step, considering the potential for recovered waste from our Waste Management BU to become a valuable input in our recycling processes. With a creative and innovative culture within the company, establishing and developing a recycling unit was an achievable goal.

Initially, we will focus on processing soft plastic and PET. We aim to research and explore the various recycling technologies available globally, and choose one that aligns with our organic growth principle.

Innovation in both recycling and manufacturing will be guided by our Innovation Diagnostic as outlined in the Innovation Canvas.





Manufacturing

We are expanding our business scope to include manufacturing of input components for construction, installation, and infrastructure management. Our initial focus is on establishing a plant for plastic-based components used in telecommunications, starting with the creation of Illibrium Fibre Optic Casings (IFOC).

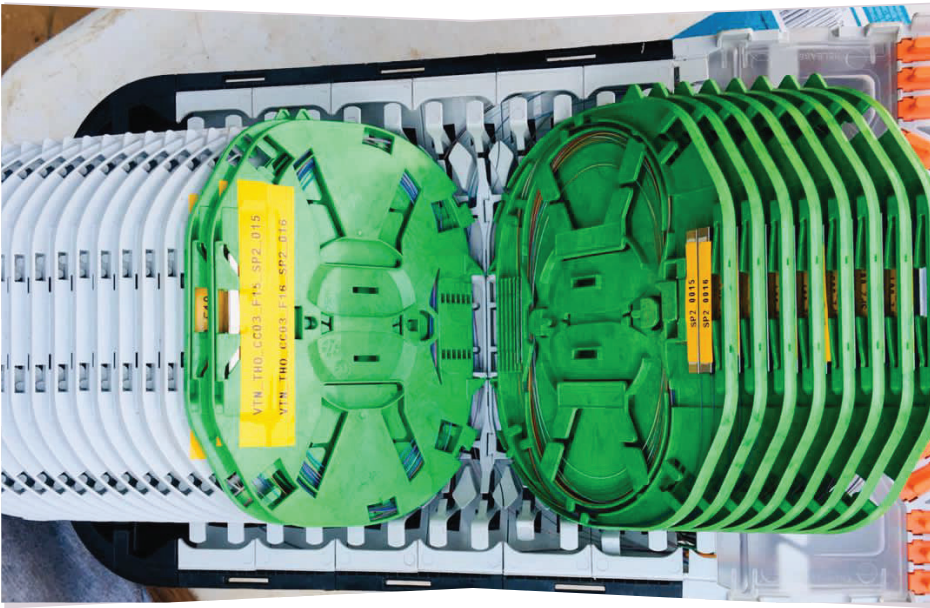
Our philosophy for IFOC is to make the conduit primarily from recycled plastic outputs. We have the machinery and expertise necessary to manage the production process, ensuring consistency in the final product. During the prototype development stage, we plan to experiment with various proportions of inputs to create the best product possible.

Telecommunications

Our Telecommunications business unit has a proven track record of successful projects. The subsidiary has completed projects as a subcontractor for Accelerit in fiber optic installation and maintenance, as a Quality Assurance Engineer for Margard (MTelecoms & Vodacom) in fiber optic network development, and with GPG Projects & Consultancy (Britelink) in Thohoyandou fiber optic installation. Additionally, the subsidiary has provided sales and fiber optic installation services for Metrofibre.



Our Featured Projects



Technical Services:

Development of Optic Fibre Network in Venda Thohoyandou for Britelink

We have been appointed as one of the subcontractors to perform technical work on the Britelink Venda Thohoyandou optic fibre network development project, we worked around the clock to deliver a stable optic fibre network, with GPG Project taking a lead in the Project Management aspect and coordinating the scopes of various subcontractors. We were nominated the best Technicians for the technical work. Ensuring that those who are quick at splicing are allocated to splice the core joints.

Our impeccable speed was maintained by both our tested target rate monitoring system, as well as our experience in managing logistics on projects of this nature. We used EXFO power meters to test the passive links and used our OTDR with OLMS to perform a system analysis, ensuring that links with unacceptable losses are rectified immediately.

The project is on-going and is worth R15 million.

Technical Services:

Router Installations for Accelerit

Accelerit is a growing internet service provider (ISP) and fibre network operator (FNO), and their primary mandate is to expand their footprint in the space of providing internet solutions.



Construction Project Management Services:

Midstream Centurion Residential Construction 693m² Double Story Development

The provision of construction project management services included engaging the Architect on construction process approach, facilitating the structural designs, getting the project registered with NHBRC, drawing up the project schedule, costing the project and drawing up the budget, procurement and appointment of subcontractors, construction supervision and acquiring approvals from various stakeholders (stakeholder management). The project was completed on time and within budget, but with a bit of a scope screeep. The closing cost was R4.9 million.



Engineering Services:

Quality Control and Assurance Services

MTelecomms was selected to construct 18 sections of fiber optic feeder routes in South Africa, with a total project value of R50 million. The routes include a combination of underground, above-ground on masts, and a combination of both configurations. Illibrium Technologies was part of the Quality Assurance Team, responsible for ensuring best engineering practices. The work was executed to meet Vodacom's high specifications, guided by the "Standard Specification - for Civil Engineering Work - for the installation of an optic fiber network." This document provided the framework for executing the work, quality control procedures, quality assurance processes, and project management approach.

This standard engineering specification is designed to align Vodacom specifications with Civil Engineering standards, such as COLTO, SANS, and other applicable standards. The specification covers all aspects of the construction process, including materials, excavation, backfill, reinstatement of hand-holes, trenches, road crossings, and other specialized crossings. The compaction levels are crucial for ensuring stability for the cables, and DCP tests were conducted to confirm acceptable levels. Pressure tests were conducted to check the durability of the conduit, and the integrity of the network was confirmed through an integrity test using the OTDR (Optical Time-Domain Reflectometer), which uses light measurement to determine the connectivity and detect any broken sections in the cable.

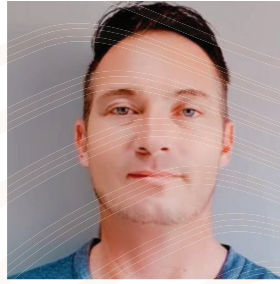


Management Team



Velile Manyisane
Founder & Managing Director

Velile Manyisane, MD of Illibrium Technologies, has over 20 years of engineering experience and founded the tech start-up to promote tech development without compromising nature preservation. A tech entrepreneur for 6 years, he also consults for ZUTARI in the Road Asset Management and Routine Road Maintenance space. Holds a Master of Engineering from Wits University and is a registered Civil Engineering Technologist with ECSA.



Conrad Cilliers
Financial Director

Conrad Cilliers is our Financial Director & Bookkeeper, strengthening the company's financial position through analysis and optimization. Passionate about building financial systems for start-ups, he prioritizes loyalty and service to both internal and external clients. Holds a Diploma in Financial Accounting from 2007.



Mvelo Msimang
Business Development Manager

Mvelo Msimang is our Business Development Manager, bringing expertise from the Hospitality, Industrial Engineering Equipment and Motor Industries. She excels in building start-up foundations from concept to operations and prioritizes a people-centered approach. Holds a City & Guilds Diploma in Professional Cookery & certificates in Marketing, Customer Relations & Financial Management.



Viwe Manyisane
Operational Manager

Viwe Manyisane is the Operational Manager for our Waste Management BU, overseeing the smooth operation of the workshop. He has experience in electrical technology and has strengthened the waste management operations and trained the teams. He holds an Electrical Technician qualification and previously worked for Transnet.





illibrium Technologies

Thank you for taking the time to learn about Illibrium Technologies (Pty) Ltd.

If you have any questions or would like to discuss how we can help you achieve your infrastructure goals, please don't hesitate to reach out to us. We look forward to the opportunity to work with you on you and making your next project a greener one.

Get In Touch



+27 12 001 7896

www.illibriumtech.com

info@illibriumtech.com



94 Panorama Road,
Rooihuiskraal,
Centurion,
0157



Tech that loves nature