

# PBT GROUP VALUE PROPOSITION

Technology agnostic Data Specialists

Global expertise, local wisdom and two decades of experience

A one-stop service offering

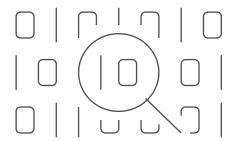
Enabling the value of Data Science

Flexible service and cost model for the new normal



# A technology agnostic Data and **Analytics specialist** organisation

## **Technology agnostic Data Specialists**



PBT Group provides Data and Analytics services and solutions that enable data-driven insights, and well-timed and informed business decisions that consistently position the Group's clients ahead of the curve.

Technological integration is a key enabler in providing clients with custom-made services or solutions in support of their organisational objectives. As a technology agnostic Data and Analytics specialist organisation, PBT Group is best positioned to optimise companies' data platforms without allowing product or technology to limit their options.

PBT Group is a professional services provider to large national and international clients, and one that is focused on transforming data into a tangible asset. PBT Group provides an end-to-end data services and solutions offering, including Data Strategy, Data Engineering, Data Visualisation, Data Analytics, as well as Application Development.

PBT GROUP CLIENTS

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PBT Group has worked in more than 27 countries around the world and has implemented large-scale data projects throughout Africa, the Middle East, Australia and Europe in the banking, insurance, healthcare, telecommunications and retail sectors.

With a staff complement of more than 900 highly skilled professional consultants, PBT Group has a reputation for delivery according to expectations. Worldwide expertise

Analytics experience



Countries in two decades



## A one-stop service offering

PBT Group offers a one-stop service in all aspects of the modern data platform. In alignment with the client's preferred technology stack, PBT Group will identify and assign the appropriate expertise to achieve the intended objective/s. The Group's consultant base consists of highly competent Project Managers, Business and/or Data Analysts, Data Modellers, Data Architects, Data Engineers, Data Visualisation Engineers etc. Whilst it can provide the necessary specialist capability and capacity, PBT Group prefers to engage in a mutually beneficial long-term partnership in supporting the client's overall data strategy.

### The Modern Data Platform: Conceptual

1. SOURCES

5. ADVANCED ANALYTICS 9. MDM

13. DATA INGESTION

2. DATA LAKE

6. DATA SCIENCE

8. VISUALISATION

10. ENRICHMENT

14. DATA GOVERNANCE

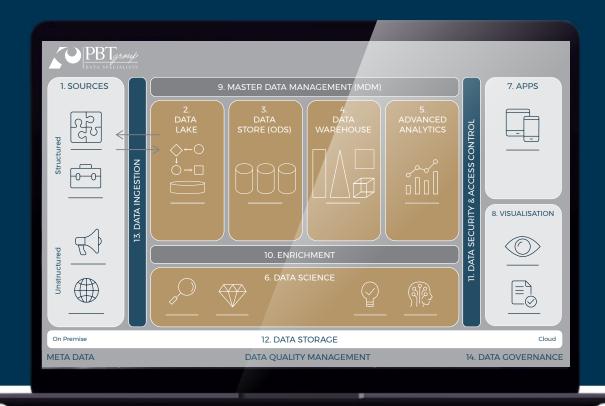
3. DATA STORES (ODS) 4. DATA WAREHOUSE

7. APPS

11. SECURITY & ACCESS

15. DATA INTEGRATION

12. DATA STORAGE 16. OTHER





## **Enabling the value of Data Science**

Thanks to the availability of Artificial Intelligence (AI) and Machine Learning (ML), more companies are focusing their efforts on appointing Data Scientists to extract business value from the data at their disposal. This has subsequently made the role of Data Engineers even more critical as this skill is essential to prepare this data for appropriate use. As organisations are rightly drawn to the benefits that AI and ML can deliver, and while this is essential to transforming data into actionable insights, it is the role of the Data Engineers to get it to that stage.

Therefore, Data Engineering is critical in enabling Data Science. If the Data Scientists are not able to obtain quality data at the right time and in the appropriate format, then it is impossible to perform their roles effectively. Hence, while Data Science unlocks the business value of data, much of the effort to enable this, lies in the engineering component. Data Engineering remains one of PBT Group's core competencies.





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Customisable
Managed Data
Services with remote
capability

## Flexible service and cost model for the new normal

PBT Group's consultants are certainly au fait with the benefits that remote working arrangements can offer to clients. Over the last decade, the company has delivered a wide range of services from Data Analysis, Data Architecture, Adaptive Data Modelling, Data Engineering, testing, implementation, and overall project management to clients in Africa and the Middle East.

PBT Group has also expanded its remote working experience to its European operations and, with strategic partnerships signed in 2019 with companies in the Netherlands, Ireland, the United Kingdom and Germany, PBT Group is well-positioned to support data-related projects across Western Europe, remotely.

As organisations seek opportunities for cost efficiencies, a remote/hybrid, flexible service model can be successfully obtained via managed services or solutions. The value proposition of a managed services arrangement resides in increased productivity, a reduced management overhead, the flexibility of capacity on demand, as well as the potential to include knowledge transfer and client enablement. When looking to partner with Data Specialists who can provide the right data solutions and expertise through a managed services model that considers remote capability, then look no further!

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A GLOBAL FOOTPRINT







## **Group Services**

PBT Group provides services and solutions across most aspects relating to data; and from end-to-end. Whilst the Group's core expertise historically originated from Data Architecture, Data Modelling and Data Engineering, this naturally expanded to include areas such as Advisory & Strategic, as well as Analytics & Visualisation. PBT Group has also started venturing into the high-end data value streams like Artificial Intelligence (AI) and intends to grow its expertise within this area.

In addition to this – and complementing the data services offered - PBT Group also has an Application Development competency mainly involved with Mobile Application Development within the financial sector.





#### **Advisory & Strategic**

- Data Strategy
- Modernisation
- Readiness Programme
- Blueprint Architecture
- Business Analysis
- Project Management



#### **Data Engineering**

- Data Lake
- Data Streaming
- ETL / ELT
- Data Warehouse
- Data Wrangling
- Cloud Infrastructure



#### **Analytics & Visualisation**

- Business Intelligence
- Self-Service Analytics
- Visualisation
- Storytelling
- Data Science
- Smart Analytics



#### **Artificial Intelligence**

- Scheduling
- Optimisation
- Natural Processing Language
- Robotics
- Machine Learning



#### **Managed Solutions**

- Outsourcing
- Support
- Maintenance
- Managed Services
- Technical Expertise



#### **Application Development**

- Backend
- Frontend
- .NET Hub
- Java Hub
- Mobile
- IOT





## **Advisory & Strategic**

PBT Group's principal Data & Analytics consultants have 10 or more years of experience in the data world. This collective experience is complemented by strong Data Governance & Management frameworks that are specifically aimed at dealing with the enterprise complexity of the modern data environment.

PBT Group can perform a readiness assessment of the client's data journey and consult on modernisation initiatives, assist in the development and implementation of a data strategy, and advise on any associated cloud-based approaches and supporting technologies required.

## **Data Engineering**

PBT Group has extensive experience across multiple industries and technologies, implementing successful data pipelines and solutions that span across Data Lakes, Operational Data Stores, Data Warehouses, Advanced Analytics, Data Science, Big Data, Data Visualisation, Cloud and DataOps. The Group's Data Engineers are well equipped to utilise modern data processing techniques such as data streaming, data wrangling, data vaults etc.

Furthermore, PBT Group can provide Cloud-based services and consulting for most of the major cloud vendors, e.g.



Azure



cloudera

Google Cloud Platform

Microsoft Azure

Amazon Web Services

Cloudera



Consultants keep

abreast with changing

technologies and industry best practices via ongoing





## **Artificial Intelligence**

In the business world, Artificial Intelligence (AI) is an emerging reality. Its adoption is tightly linked to business maturity. AI is commonly defined as the area of computer science that emphasises the creation of intelligent machines that work and react like humans.

As an extension of its Data Engineering and Advanced Analytics competencies, PBT Group has expanded its service offering into areas of Data Science and Al.

## **Application Development**

The PBT Group Application Development competency assists organisations to deliver custom applications that focus on system integration, software, web, database, collaboration, business process management and mobile app development.

The PBT Group team has been fundamental in the creation/enhancement of a mobile banking app used by millions of banking clients.



Data Science



Artificial Intelligence



Application Development



## **Client Engagement Models**

PBT Group's service offering is based on the following engagement models:



Engaging a team/part-team in collaboration with the client to **deliver a** solution via a formalised project.



Providing relevant expertise, e.g. Data Engineers, Business and/or Data Analysts, Data Visualisation Engineers, Data Architects, Project Managers on an 'as needed' basis as professional services.



Providing a pre-defined service, e.g. BAU, functional, technology specific, support, as a *managed service*.

PBT Group is not just a "provider of resources" – the brand prefers to be an active, and valuable contributor in the client's data strategy, execution and realisation thereof – in a practical, cost-efficient manner.

## **Consulting Services**

PBT Group provides data specialist professional services to clients who require additional capacity and/or expert capability with their existing data platform environments. The Group's consultant base consists of a variety of the mentioned roles, technology skills, and in-depth industry experience.

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PBT Group has completed many successful end-to-end data platform, Business Intelligence (BI) and Advanced Analytics projects. Where required, the brand has also provided the on-going maintenance and support after the project. These projects have varied in size and complexity. PBT Group has successfully completed some of the largest data projects on the African continent. The Group's specialists and project managers have significant experience in the design, construction, implementation, and maintenance of Data and Analytics solutions.

And, the Group's track record of successful delivery is built on more than 20-years of experience and a well-defined approach that considers the strategic objective, whilst enabling iterative value-add.

PBT Group's practical project experiences are represented in many of its Use Cases, some of which have been published on the Group's website, www.pbtgroup.co.za, or can be provided on request.

# PBT promotes a few principles of Data & Analytics initiatives, namely

- Confirm business ownership appropriate project structure
- Understand business goals and tangible objectives requirement specification, defined scope
- Think Big, Start Small conceptual architecture
- Confirm client's readiness readiness assessment, quality checks
- Phased, iterative delivery cycles early and continuous business value add
- Well-managed and open communication appropriate project management
- Enable / contract knowledge & IP transfer

PBT will always *align with the client's preferred technology stack* and methodology





## **Managed Services and Solutions**

PBT Group's Managed Services and Solutions offering originated from a large-scale project across 20 countries, with the need to support the associated operations with 1st (day-to-day 'running' of the solution), 2nd- and 3rd line support, as well as maintenance (small enhancements) activities to keep the solution relevant. The support model provided the required flexibility of onsite vs. remote support, or a hybrid thereof, as well as more informal vs. formalised, Service Level Agreement (SLA) based support — depending on the operation's size and budgetary constraints.

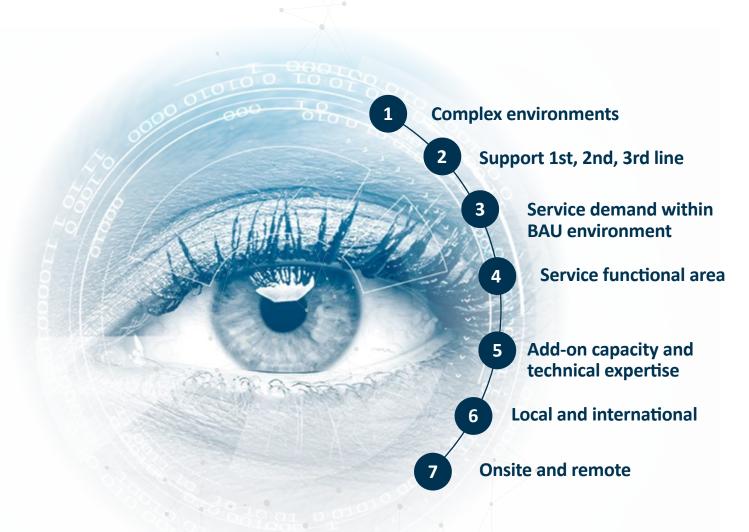
PBT Group has subsequently successfully expanded these services to non-support related, functional areas for various local and international clients. The diagram provides a summary of the managed services utilisation/application and associated value proposition PBT Group offers. A managed services and solutions engagement is an attractive consideration as it provides flexibility, on demand capacity and expertise, as well as cost efficiencies associated with a remote working model and limited management overhead.

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## **Managed Services and Solutions**



#### **Value Proposition**

- Increased productivity
- Predictable cost structure
- High level of technical expertise
- Focus on core business, whilst empowering and enabling end users
- Utilise PBT's experience and expertise
- No direct resource management & overhead
- Knowledge transfer and enablement



## **Value Added Services**

PBT Group has established long term, strategic partnerships with many of its clients. Such an engagement positions the Group to provide value added services including:











The PBT Graduate
Programme, facilitated
by the PBT Academy.

Training through the PBT Academy, e.g.
BI Business Analysis,
Data Modelling, Data
Engineering.

A specialised Skills

Development

Programme customised

for the client's

requirements and

environment.

"Burst capacity" enabling short term capacity on demand.

Knowledge sharing via the Group's extensive consultant base and expertise related to industries, technologies and best-practices, locally and abroad.

## THE PBT GROUP JOURNEY



Founded as Prescient Business Technologies, a specialised information management company.

PBT Group (Australia) established in Melbourne. PBT Group listed on the JSE, through a reverse listing via the Wooltru cash shell.

1998

2008

2010

2006

Rapid developments in the company structure, together with the need to align operations with the Group's vision of its future potential and acquisitions, lead to Prescient Business Technologies renaming to PBT Group.

Strategic Medical Systems, a provider of specialist healthcare management solutions and services, established in 1998 as part of the PBT Group of companies, renamed to PBT Insurance Technologies (PBTit), to better reflect the wider application of its services and align itself with the PBT brand.

2009



JS≣

PBT Group is a 51% black-owned, level 1 B-BBEE company, based on the ICT Sector Codes.

PBT Group Limited is listed on the Johannesburg Stock Exchange under the Software and Computer Services Sector.



# THE PBT GROUP JOURNEY



PBT Group acquires three specialist technology-focused companies: BI-Blue Consulting, a recognised leader in SAP Business Analytics and Enterprise Information Management, CyberPro Consulting, a leading Microsoft software services company, as well as Technique Business Intelligence Software, an IBM business partner and technical solutions authority.

Prescient listed on the JSE through a reverse listing via PBT Group, continuing to operate through its two main subsidiaries, Prescient Holdings (financial services) and PBT Group (information management services).

Following the downscaling and subsequent exit of the Africa and Middle East operations, PBT Group shifts its international focus to the United Kingdom and Europe, including Ireland. Through this, PBT Group Europe, with its head office in Amsterdam, Netherlands, was established.

2012 T 2018 T 2020

Prescient disposes of its financial services arm, renamed to PBT Group and continues its listing on the main board of the JSE as a focused listed IT entity.

PBT Group (UK) established as an extension of the Company's services internationally.

PBT GROUP CLIENTS

PBT Group's clients are mainly medium to large, national and international organisations and reside within a variety of industries, e.g. financial, insurance, telecommunications, retail etc. PBT Group has long-standing relationships with most clients and has become a key contributor to some clients' data strategy and data implementation initiatives.



## **Group Clients**

#### An extract of some of PBT Group's clients, locally and abroad.













#### **Financial**

Capitec
Coronation
DirectAxis
FNB
Investec
Nedbank
Nimble Group
Old Mutual
RCS
RMB
Sanlam
SARB
Silica

Standard Bank

Wesbank

WFS

#### **Insurance**

Bryte
Centriq
Discovery
Hollard
Liberty
MMI Holdings
Santam

#### Telecommunications

MTN Telkom Vodacom

#### Retail

Cape Union Mart
Clicks
Pepkor
Pernod Ricard
Pick 'n Pay
Pioneer Foods
Shoprite
TFG
Woolworths

#### Other

Aculocity
AfroCentric Health
Business
Connexion
Bytes
Cornastone
DENIS
Distell
Europcar
Medscheme
Paystack
Pepkor IT
SASOL
SITA

#### International

6 Degrees

AkzoNobel **Amplify Health** Brakes Cargill **Data Growers** Givaudan Greencore IBG **ING Bank** Johnson & Johnson Kerv Mauritius **Commercial Bank** Primark Stryker Walraven Well

## TECHNOLOGY AGNOSTIC EXPERTISE

PBT Group's technology agnostic approach ideally positions us to provide data services and solutions irrespective of, but in alignment with, the client's preferred technology stack(s), and to assist clients with the technology integration of their data platforms. The Group's consultants

are Data Specialists who apply bestpractice principles irrespective of the technology. PBT Group works in close collaboration with various technology/ product partners to ensure that all consultants are well-trained and certified in numerous technologies.

The below provides a view of some of the technologies that have been used in the many successful projects and data initiatives PBT Group consultants have been fundamental in implementing.

#### **Data Engineering (Management)**

























































#### **Application Development**

















# Largest Data & Analytics programme - the ultimate delivery achievement

Quality data remains a critical asset to every business across the globe. In 2009, PBT Group built its first integrated data warehouse solution for a well-known South African mobile company. This initiative evolved into a journey of uncharted territory through 20 countries across Africa and the Middle East.

The objective was to implement a standardised Business Intelligence solution across all operations. For 8-years, PBT Group ventured into unique environments, with great diversity in language and culture, even war-torn countries. The entire life cycle of this meta data driven solution, based on an adaptive data model, was mainly performed in a remote manner.



More than 160 million subscribers



24/7 Centralised remote support

This comprehensive Data and Analytics platform eventually processed enormous data volumes of more than 160 million subscribers daily, with PBT Group providing 24/7 centralised, remote support. As organisations today are reeling to adjust to the new normal, the Group's consultants have become accustomed to being present, while not visible – a model the Group has successfully tried and tested over a number of years.

PBT GROUP CLIENTS

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## Customisable remote services in support of cost optimisations

The client is a £1.5 billion revenue organisation and leading manufacturer of convenience foods and supplies a wide range of chilled, frozen and ambient foods to customers in the United Kingdom.

PBT Group provided Data Engineering, Data Modelling, Analysis and Agile Management skills for a project carried out in 2019, to consolidate data, resulting from the company's growth through acquisitions. The data was sourced from various siloed ERP, manufacturing, supplier and product management systems to build a consolidated corporate data mart. The total team working on the project ranged from 18-30 people during the various phases of the project. This project was a successful use case in the efficiency and cost effectiveness of remote work, where the offsite PBT Group staff worked with the client's onsite business and subject matter experts at their various manufacturing and IT locations in the UK. PBT Group's consultants worked collaboratively with the client from the United Kingdom, Ireland, Netherlands, Spain and South Africa.

The use of video conferencing, ability to connect to remote servers in UK data centres and Azure cloud, complemented by quality skills, minimal time difference, as well as effective English communication, proved the feasibility of remote working. This initiative provided a solid foundation for the client to be prepared for the new ways of working required during and after the recent global pandemic crisis.



This project was a successful use case in the efficiency and cost effectiveness of remote work.







## A tale of many clouds

PBT Group's ability to adapt to different technologies and enable significant business benefit can be demonstrated through the successful Use Cases below.

#### **Azure Data Warehouse Modernisation**

A proposal and design were presented to the client to start adopting a cloud-based architecture of a full modern data analytics platform on Azure. Cloud provisioning allowed the project to start virtually immediately. The client's most urgent needs could be met in two short agile phases and value was derived in a matter of weeks. The long-term architecture and design principles also laid the foundation while growing the analytics platform into maturity.

#### **GCP Metadata driven ETL**

The client's Lost Sales Calculation took between 30 minutes to 3 hours per department, for 45 departments. This calculation now runs in less than 10 minutes for the entire organisation. Analysts can maintain the ETL by simply editing SQL that they are familiar with, while the solution can be parameterised in a flexible way to perform ad hoc runs. This implies that planners can add new prices and redo their planning run at the push of a button.

#### **AWS DataIKU Workflow Optimisation**

In order to do stock optimisation simulation, this client's data needed to be transformed and validated in a series of complex steps. Using the DatalKU API, these repetitive steps could be automatically generated, which reduced the validation and selection development time by an order of magnitude, while also automatically taking care of naming standards and best practices across all validation processes.



Azure provisioned - Data Factory, Data Warehouse, MSSQL services, SSIS, Python, Blobstore.



**TECHNOLOGY** 

Google Cloud Data Store (to store the ETL task definitions and dependencies), Google Cloud Bigquery (to do the Big Data processing), Google App Engine, Google Cloud Functions. Scheduled either via App Engine cron, or Composer (Apache Airflow). Engine developed in Python 3.



**TECHNOLOGY** 

AWS, PostgreSQL, DataIKU, Python.

# WHY PBT?





Data Specialists



Custom-made Solutions and Services



Technology Agnostic



Information Management Expertise



27 Countries



Various Industries



Our People

# WHY PBT?



#### The Group's key differentiators can be summarised as follows:



PBT Group has been a Data Specialist organisation for more than 20-years.



PBT Group provides custom made services and solutions to best meet its clients' business needs.



Data Engineering is a key enabler to Data Science and remains one of the Group's core competencies.



Being technology agnostic, PBT Group is best positioned to optimise clients' data platforms without allowing product or technology to limit their options.



PBT Group has more than 5,300,000 hours of data and information management experience.



The Group has implemented projects and provided services in 27 countries.



The PBT Group data expertise spans across many industries.



The Group's most important assets are its more than 640 experienced consultants.



PBT Group provides flexible service and cost models for the new normal of work.







## **PBT Group South Africa**





## **PBT Group Australia**

Based in Melbourne, the Claims-Tech team enables clients to optimise their claims management capability and take advantage of automated claims assessing and real-time straight through processing. Its clients are then able to deliver consistent, accurate benefit determination, in turn providing their customers with a fast, accessible and reliable claims processing service they deserve.

The Claims-Tech team have unparalleled knowledge, experience and specialist expertise in the Australian Private Health Insurance industry at an operational and business systems level. The team also hold deep practical experience with developing and implementing core claiming systems and integrating them into the broader enterprise. The team's understanding of Australian health industry data is leveraged into its complementary Data Migration, Business Intelligence and Analytics capabilities and offerings.



PBT Group Australia is a wholly owned subsidiary of PBT Group Limited.

## **PBT Group Europe**

PBT Group Europe, with its head office in Amsterdam, Netherlands, was established in 2018. PBT Group has been working with clients in European markets for a number of years — and with the rapid expected growth in the EU Data Economy, PBT Group recognised the immense opportunity this offers and the decision was taken to formally establish presence in the EU with a local footprint.

With strategic partnerships signed in 2019 with companies in the Netherlands, Ireland, the United Kingdom and Germany, PBT Europe is well-positioned to support data-related projects across Western Europe, onsite and remotely.

## **PBT Group UK**

Since 2016 PBT Group has, in association with a UK based partner, provided services (Projects, Managed Services, 24x7 Support) to clients in the UK. Whilst PBT Group UK (a subsidiary of PBT Group) was established in 2020, more recent local presence provides expert, in person capability, complemented by offshore capacity.

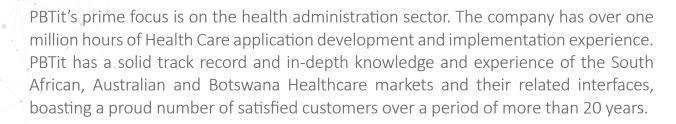
No language barrier, similar time zones, and a well-established model enables PBT Group UK to deliver quality, commercially attractive data specialist services. The end-to-end Data & Analytics service offering, on premise or in the cloud, is furthermore supported through partnerships with technology — and cloud service providers, as well as many certified consultants within the Group.



PBT Group Europe is a wholly owned subsidiary of PBT Group Limited.



PBT Group UK is a wholly owned subsidiary of PBT Group Limited.



Being part of PBT Group enables PBTit to draw on various expert skills within the Group, which further strengthens and enhances its solution offering within the Healthcare sector.



Solid track record



In-depth knowledge and market experience



Years of satisfied customers

#### **PBTit provides:**

- A stable and reliable software platform managing millions of medical aid lives at a very competitive price.
- Solid medical aid administration experience.
- A proven and stable technology platform.
- Uniquely customised products as per client requirements based on standard modules.
- Constant rejuvenation of products.
- Customised version of the client's software.

TECHNOLOGY
AGNOSTIC EXPERTISE

REAL SUCCESS STORIES WHY PBT? THE PBT GROUP FAMILY

A GLOBAL FOOTPRINT

# A GLOBAL FOOTPRINT





#### **Cape Town**

PBT House 2 Mews Close Waterford Mews Century City 7441 T: +27 (0)21 551 0937



#### Stellenbosch

Octo Place
Building A, Office A3
5 Electron Road
Techno Park
Stellenbosch
7600
T: +27 (0)87 803 1220



#### Johannesburg

The Studio
2nd Floor, Building 13
Woodlands Office Park
Woodlands Drive
Woodmead
2191
T: +27 (0)11 656 3530



#### **Amsterdam**

Fred Roeskestraat 115 1076 EE Amsterdam Netherlands T: +31 61 146 2551 E: info@pbtgroup.nl www.pbtgroup.nl



#### Melbourne

Suite 402 838 Collins Street, VIC 3000 Melbourne Australia T: +61 (0)3 9678 0500 www.pbtaustralia.com



#### London

5 Taplins Court
Taplins Farm Lane
Hartley Wintley
United Kingdom
RG27 8XU
T: +44 7443 166578



#### **Plattekloof**

Tygerberg Office Park Zeezicht Building Ground Floor 163 Uys Krige Drive Plattekloof 7500 T: +27 (0)21 930 0010

