

Unlocking continental growth

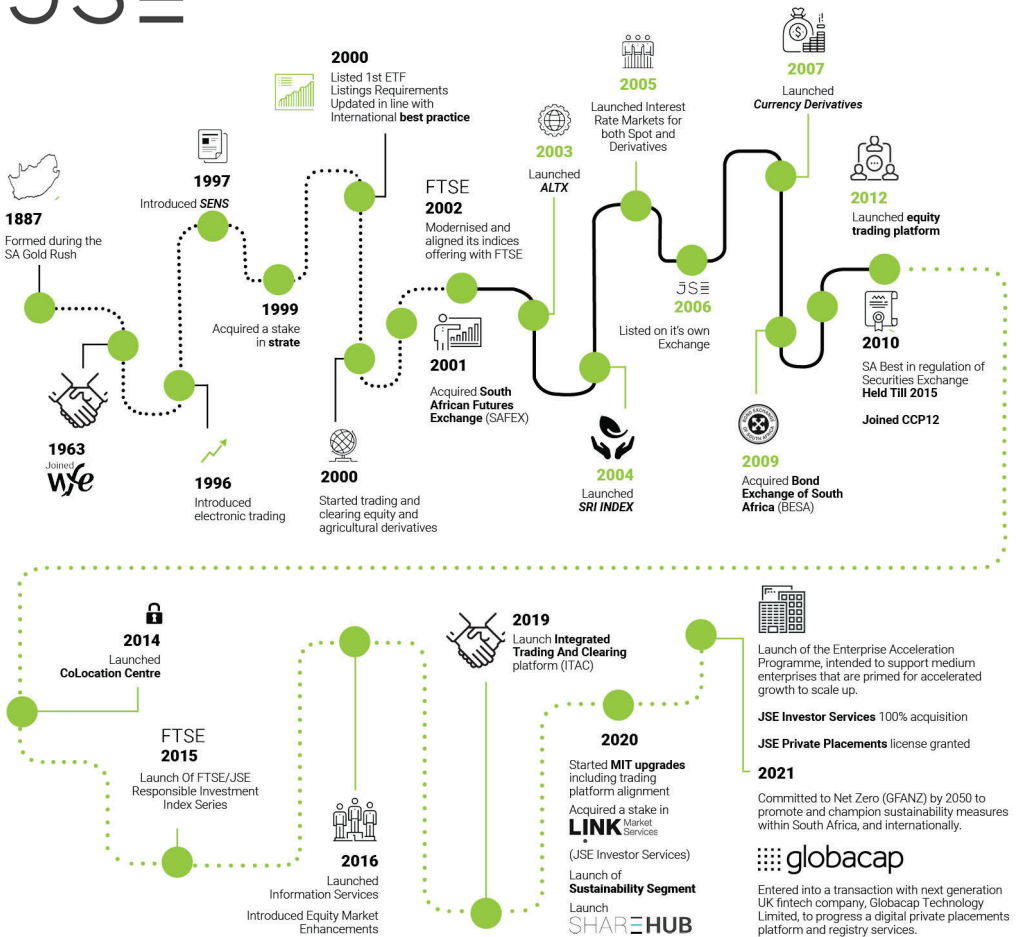
Access deep and liquid markets



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JSE

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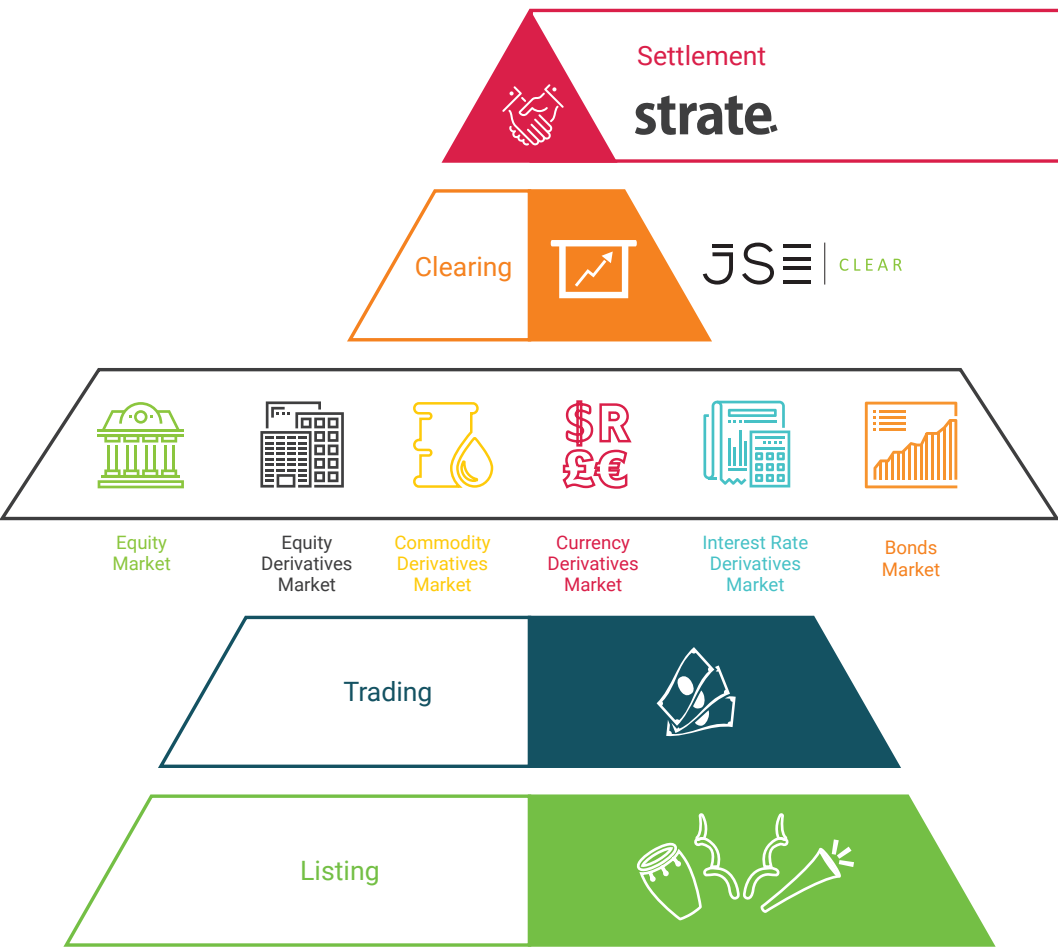


The Johannesburg Stock Exchange (JSE) has a well established history operating as a market place for trading financial products. It is a pioneering, globally connected exchange group that enables inclusive economic growth through trusted, world-class, socially responsible products, and services for the investor of the future. It offers secure and efficient primary and secondary capital markets across a diverse range of securities, spanning equities, derivatives, and debt markets. It prides itself as being the market of choice for local and international investors looking to gain exposure to leading capital markets on the African continent. The JSE is currently ranked in the Top 20 largest stock exchanges in the world by market capitalisation, and is the largest stock exchange in Africa, having been in operation for over 130 years.

As a leading global exchange, the JSE co-creates, unlocks value and makes real connections happen.

Our market structure

Vertical and horizontal integration enables trading of multiple asset classes, data and ownership of the value chain from listing to settlement.



Market overview



Equity market record days

17 Aug 2021: \$10.4 billion value traded

04 Oct 2021: 1.8 billion volume traded

17 Aug 2021: 920 335 deals traded

Central book versus reported

Equity Trades On Screen vs Off Screen	Volume	Value
Central Order Book Trades	90,67%	91,13%
Off Book Trades/Reported Trades	9,33%	8,87%

Our markets

Equity



Average Daily Value

\$1,516M

Equity Derivatives



Average Daily Value

\$1,489M

Currency Derivatives



Average Daily Value

\$180M

Interest Rate Derivatives



Average Daily Value

\$312M

Commodity Derivatives



Average Daily Value

\$286M

Bonds



Standard Trades Nominal
Average Daily Value Traded

\$2,525M

Equity and Equity Derivatives

Trading activity



EQUITY MARKET	2019 DAILY AVERAGE	2020 DAILY AVERAGE	2021 DAILY AVERAGE	2022 YTD DAILY AVERAGE
Value (US\$m)	1 333	1 484	1 516	1 673
Volume (m)	331	467	488	347
Deals	307 449	368 930	326 352	340 899



EQUITY DERIVATIVE MARKET	2019 DAILY AVERAGE	2020 DAILY AVERAGE	2021 DAILY AVERAGE	2022 YTD DAILY AVERAGE
Value (US\$m)	1 599	1 486	1 489	1 696
Volume	331 595	409 668	425 290	501 815
Deals	14 364	16 288	14 827	15 048

Highlights

- Iceberg enhancements
- Pegged hidden order enhancement
- Colocation expansion (18 new racks in 2021)
- Monthly futures close out at EOD
- Total Return Future on Single Names
- Block trade delayed publication

Future growth

- International Underlyings contract standardisation and WMR Fixing Rate
- Options on international derivatives (IDX options)
- Barrier Options on international underlying

Performance highlights - Top JSE Indices

FTSE/JSE All Share Top 40 Index

The Top 40 Index represents the forty largest companies which are constituents of the All Share Index (J203), ranked by full market capitalisation. The number of constituents can exceed 40, as some companies issue multiple equity instruments.



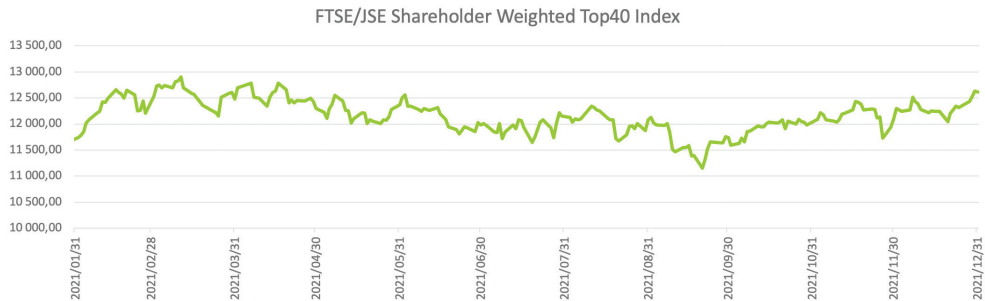
FTSE/JSE Shareholder Weighted Top 40 Index

The constituents of the FTSE/JSE Shareholder Weighted Top 40 Index are independently ranked and selected by their SWIX net market capitalisation. The SWIX free float represents the proportion of a constituent's share capital that is held in dematerialised form and registered on the South African share register, maintained by Strate.



FTSE/JSE Capped Swix Top 40 Index

This is the capped version of the FTSE/JSE Shareholder Weighted Top 40 index. The FTSE/JSE Capped Swix Top 40 applies a 10% capping factor upon review of the index.



ETFs and Dual Listed Stocks

ETF highlights

- 87 listed ETFs
- 8 new listings in 2021
- Top 10 ETFs made up 63% of the segment's trading activity
- ETF Market Cap as at Dec 2021 - R73.964 billion



Top 10 ETFs	ZAR Daily Value Traded
New Gold Issuer Ltd	12,751,013,790
New Gold Platinum ETF	5,541,407,644
Satrix MSCI World Feeder	4,720,278,086
1investGold ETF	4,716,873,836
Satrix 40 Portfolio	4,452,528,719
1investPlatinum ETF	3,895,411,100
Sygnia Itrix MSCI World	3,318,761,439
Satrix SA Bond Portfolio	2,667,660,463
NewGold Palladium ETF	2,561,084,420
Sygnia Itrix 4Ind Rev Gb	2,046,595,624

Dual listed stock highlights

- There are 27 dual listed stocks in the Top 40, which make up 80% of the index weight.
- Top 10 dual listed stocks make up 44% of the total value traded in equities.



Top 10 Dual Listed Instruments	Primary Listing	Secondary listings	ZAR Daily Value Traded
Naspers Ltd	JSE	A2X, NASX	3,979,139,201
Prosus N.V.	XAMS	JSE, A2X	1,771,213,279
Anglo American plc	LSE	BOSX, JSE, SCHSE	843,571,011
Firststrand Ltd	JSE	NSX	713,415,735
BHP Group Plc	LSE	JSE	608,896,668
Sasol Ltd	JSE	A2X, NYSE	508,635,275
Anglogold Ashanti Ltd	JSE	AUSX, EBRX, ERPX, GSX, NYSE	505,503,783
Compagnie Fin Richemont	SCHSE	JSE	501,877,144
Anglo American Plat Ltd	JSE	LSE	473,374,296
Standard Bank Group Ltd	JSE	A2X	468,085,703

Currency Derivatives

Trading activity



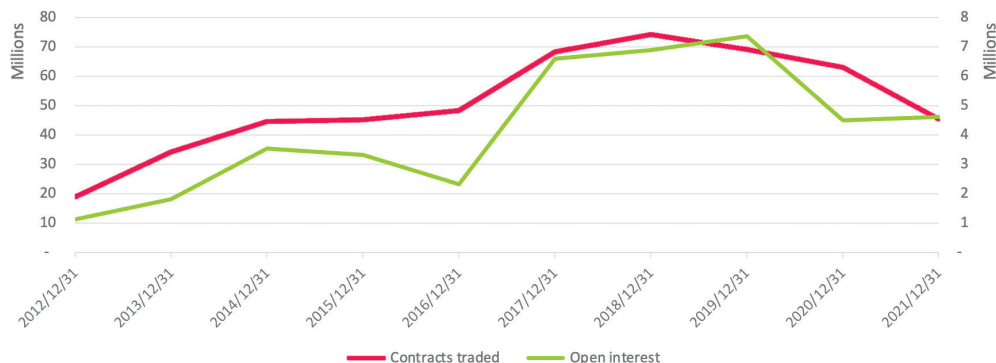
CURRENCY DERIVATIVES MARKET	2019 DAILY AVERAGE	2020 DAILY AVERAGE	2021 DAILY AVERAGE	2022 YTD DAILY AVERAGE
Value (\$m)	268	228	180	153
Volume	277 456	207 716	181 698	152 326
Deals	180	209	177	191

Future growth

- Request for quotes (RFQ)
- Exchange for physical (EFP's)
- African Currencies product suite
- Non-cash collateral

Performance highlights

Currency derivatives



Interest Rate Derivatives

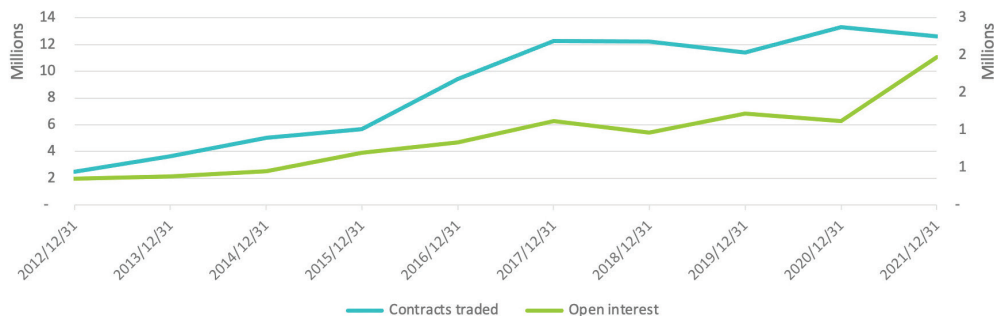
Trading activity



INTEREST RATE DERIVATIVES MARKET	2019 DAILY AVERAGE	2020 DAILY AVERAGE	2021 DAILY AVERAGE	2022 YTD DAILY AVERAGE
Value (\$m)	301	325	312	307
Volume	45 879	52 854	50 531	49 238
Deals	58	66	52	54

Performance highlights

Interest rate derivatives



Bonds

Trading activity



DEBT MARKET	2019 DAILY AVERAGE	2020 DAILY AVERAGE	2021 DAILY AVERAGE	2022 YTD DAILY AVERAGE
Standard Trades (Nominal \$m)	2 572	2 806	2 525	2 725
Repo Trades (Nominal \$m)	6 692	5 510	6 404	7 055
ETP Volumes (Nominal \$m)	115	113	104	426

Future growth

- Centralising of reference data for cash bonds
- Social impact bonds



Commodity Derivatives

Trading activity



COMMODITY DERIVATIVES MARKET	2019 DAILY AVERAGE	2020 DAILY AVERAGE	2021 DAILY AVERAGE	2022 YTD DAILY AVERAGE
Value (US\$m)	210	235	286	306
Volume	14 099	13 871	14 239	13 883
Deals	1 862	1 986	1 909	2 026

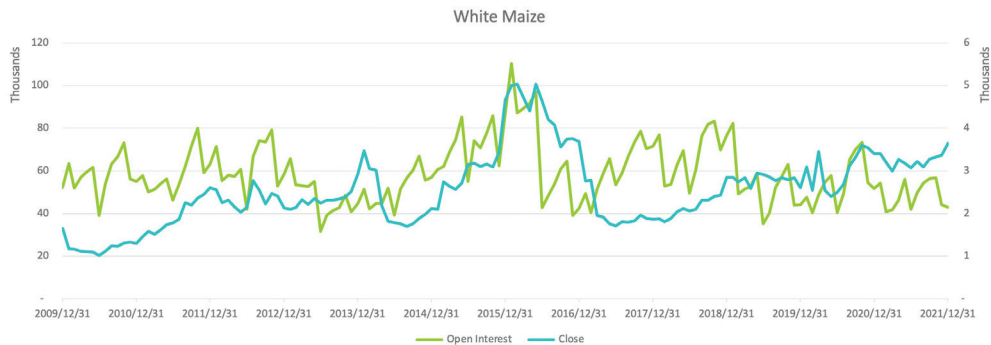
Future growth

- Launch of Deliverable Diesel
- Launch of Soybean Meal and Sunflower Oilcake

Performance highlights

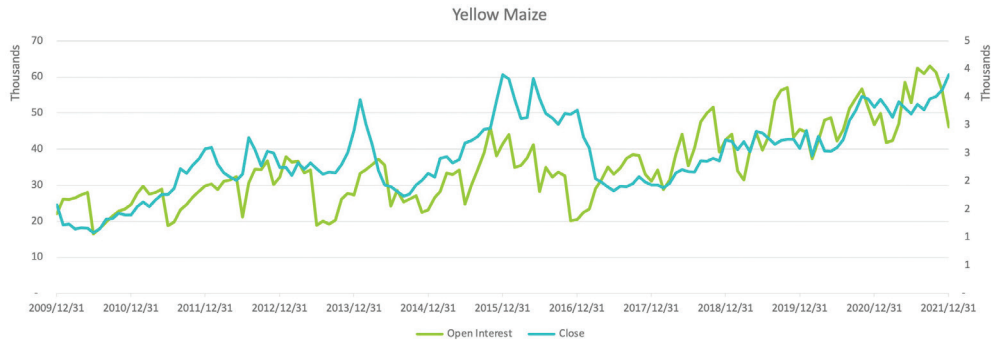
White Maize

White Maize from any origin, of the grade “WM1” as defined in the South African Grading regulations.



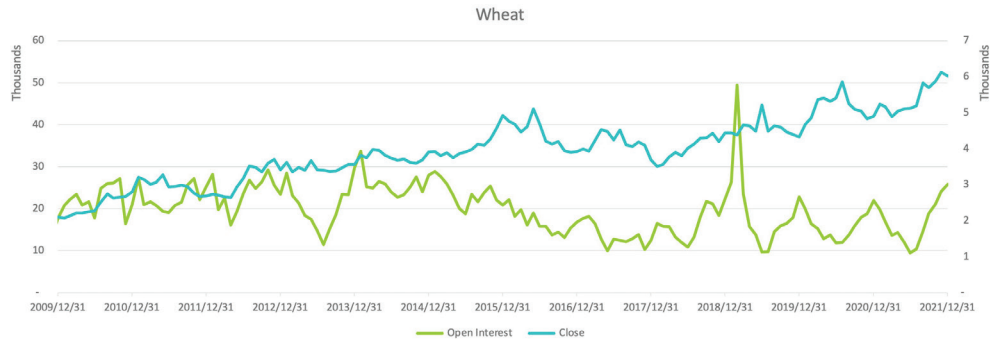
Yellow Maize

Yellow Maize from any origin, of the grade “WM1” as defined in the South African Grading regulations.



Wheat

Standard White Wheat Type A or B wheat of sound, fair and merchantable quality which is fit for human consumption.



JSE Colocation

The JSE Colocation facility provides the lowest latency connection to JSE markets, allowing customers to host their infrastructure in the same vicinity as the infrastructure that drives the markets at the JSE. This will enable low latency high speed trading and market data access.

Benefits

- Fastest trading and market data access to all JSE markets
- Average round-trip Colocation network latency is sub 20 microseconds
- Reduced bandwidth requirements for connectivity to JSE
- Reduced dependence on Telco providers
- Resilient infrastructure throughout the environment
- Remote hands available

Connectivity

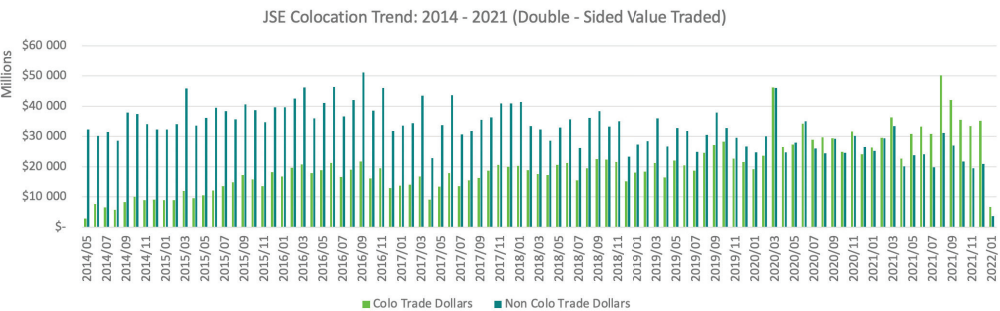
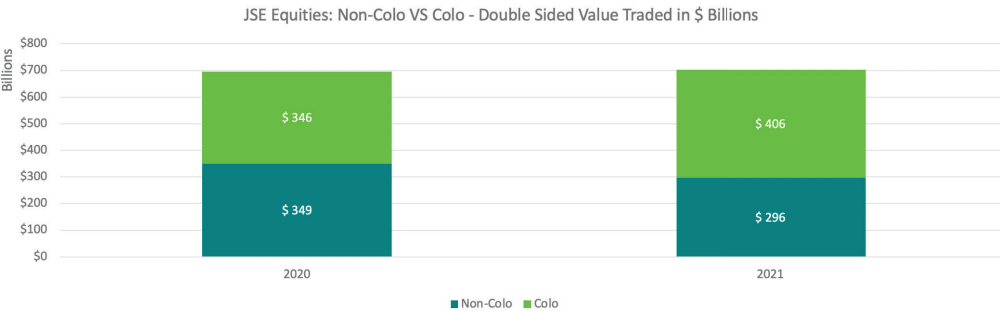
- All cables between the Hosting Units and the Colocation network switch are of equal length irrespective of the Hosting Unit position within the Colocation facility
- 10 Gigabits per second fibre trading connectivity from the Colocation facility
- The Meet-Me-Room is facilitated as required via Cross Connects
- Time Synchronisation will be offered via Precision Time Protocol (PTP)

Scalability, Security and Stability

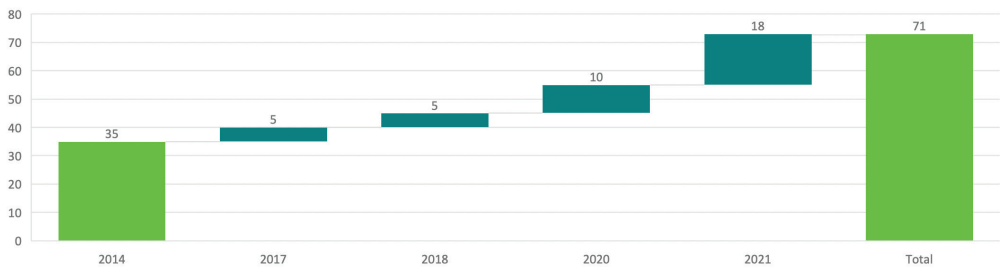
- Sub-letting is allowed, SIP (Shared Infrastructure Provider).
- A further new 18 Racks were completed in 2021 bringing the total to a 71 Rack environment.
- 24/7 year round Colocation facility environment monitoring
- Biometric scanners, closed circuit cameras, onsite security, coded access, alarm systems, and more are installed for our client's protection
- Multiple backup generators and contingencies in place to ensure that there is never an interruption in service
- 100% uptime of the facility

18 New Racks Rolled out

Colocation Trends



Colocation Rack Expansion



- The JSE Colocation service offering has grown substantially from inception in 2014. We have built a further 18 Racks in 2021, giving a grand total of 71.
- Expansion plans to accommodate for customized racks in a larger data centre.
- Our current Occupancy Rate is 65%.

Connectivity and market access

JSE International Access Point (IAP)

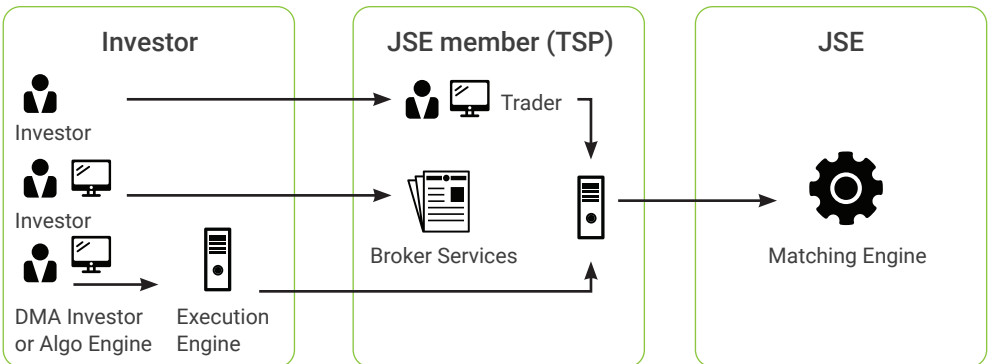
Data customers who want direct access to the JSE, but do not want to incur the cost and effort of a direct connection to the JSE data centre in Johannesburg, can benefit from the JSE's remote International Access Point (IAP) service.

The IAP is located at the Telehouse Centre in London and provides access to JSE real-time market data and/or testing services. Accredited telecom providers provide connectivity to the IAP, and through their networks, provide access reach to all major international financial centres.

Some telecom providers also offer a separate order routing service for an expanded set of access services to complement the IAP.

Direct Market Access (DMA)

Our DMA process allows investors to submit an electronic order to a Trading Service Provider (TSP). This order is then received by the TSP and routed by means of the TSP's operated order entry application (OEA) to the JSE's Trading and Information Solution. As a DMA client you are afforded the ability to participate in the auction periods and continuous trading periods with relative ease and speed.



JSE Equity Market Enhanced Order Suite

Our Complex Order Suite enables your trading strategies by providing a safe haven to execute large in size orders in a non-visible yet regulated environment. Using these Equity Market enhancements will give you a competitive edge and improve efficiency of filling your large orders and while minimising impact.



Central Order Book Cross Trade enhancement (XT)

Execute your pre-negotiated trades on the central order book with the XT trade type without interception by any other orders. Now enhanced, with an option to match at the prevailing mid-point should your price not be within the Best Bid and Offer (BBO) at the time of entry.



Block Trade (BT)

Block Trades, will now be simpler, smaller and have a more easily determinable minimum BT trade size. Through a rolling average daily volume assigned to “tiers” corresponding to a range of traded value, we have eliminated the need to calculate the BT trade size. In addition to this change, Off Order Book Principal Trades (“OP”) meeting the prescribed minimum size criteria applicable for BTs, will be booked as BT trades going forward (i.e. where a member trades as agent on behalf of or as principal with a client or with another member). The OP trade type will be retained, but only for circumstances where the transaction is with a foreign professional market participant and where no minimum value will apply.



Iceberg Orders

This functionality will enable you to submit orders and only display a small portion of the total order, which will allow you to have your order residing on the central order book without disclosing your full order size.



Pegged Hidden Orders

You can execute large orders hidden and link them to either the best bid, offer or mid-price of the order book to improve execution at prices relative to the best executable spread of the instrument.

Information Services

We offer a comprehensive suite of market data products which will enable you to make sound choices whilst making your investment decisions. These products range from live, intra-day, end-of-day and historical data, and include the following:

- Equities
- Indices
- Equity Derivatives
- Commodity Derivatives
- Currency Derivatives
- Interest Rate Derivatives
- Bonds
- Market Announcements (SENS)

Through our joint venture with FTSE Russell, we offer a range of index products across a wide variety of methodologies and investment criteria. The FTSE/JSE index series includes the following indices:

- FTSE/JSE All Share Index
- FTSE/JSE Top 40 Index
- FTSE/JSE Responsible Investment Indices
- FTSE/JSE Factor Indices
- FTSE/JSE Shariah Indices
- FTSE/JSE RAFI Indices
- FTSE/JSE Fixed Income Indices
- FTSE/JSE Multi-Asset Indices*

Our global expertise enables us to provide customised indices to cater for your unique investment strategies.

- Live data provision via our International Access Point

Value-Add Market Data Services

1. Market Data Connect

Our clients can now interact with us digitally and during the course of 2022 we will be fully digitising the market data contracting and ordering process via a self-service customer portal known as JSE Market Data Connect.

2. Historical Tick Data

The JSE makes historical tick data available for three of its markets, namely Equity, Equity Derivatives and Currency Derivatives, in an easily accessible cloud solution offering that is hosted by CME Group, the world's leading and most diverse derivatives marketplace, on their CME DataMine platform. We provide a limited extract of historical data available on a complimentary basis if you would like to back-test a trading strategy.

JSE Sustainability

We are a world leader in creating an enabling environment for better sustainability and disclosure to grow in our market. To this end we strive to maintain high standards of governance, offer innovative products which allow for investors and issuers to act in their sustainability needs, and ensure we contribute to active engagement and advocacy on sustainability in our ecosystem.

Products

- **Indices:** Premised on the FTSE4Good model, our Environmental, Social and Governance (ESG) ratings underlie our sustainability indices. The JSE's adoption of the FTSE ESG Ratings methodology brings a greater value proposition for both investors and issuers in that qualifying JSE companies can form part of a global universe of over 7,200 securities assessed by FTSE. We offer the following 2 ESG indices:



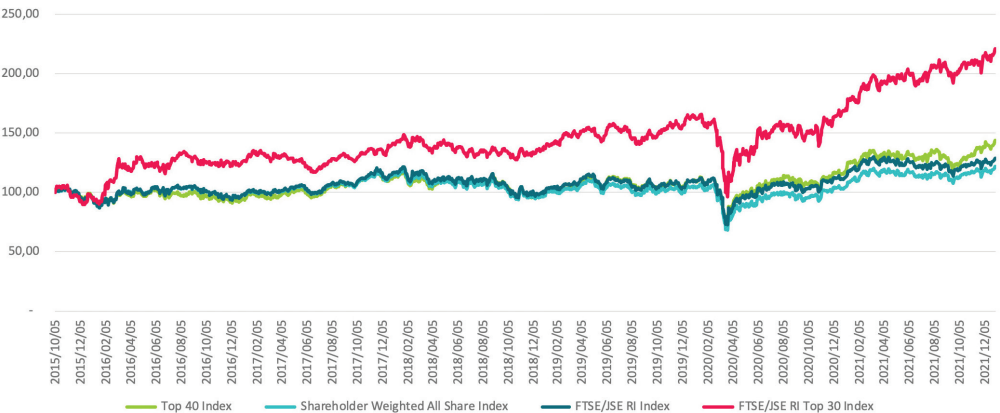
The FTSE/JSE Responsible Investment Index - a benchmark index calculated at the end of the day and weighted according to market capitalisation.



The FTSE/JSE Responsible Investment Top 30 Index - an investable index which is equally weighted, giving each of these top performers equal exposure to investment into the index, and comprises the 30 companies with the highest ESG ratings as at each semi-annual review of the index series.

FTSE/JSE Responsible Investment Top 30 Index (Tradable)

The equally weighted tradable index whose value is calculated on a real-time basis.





Sustainability Segment (Bonds): Makes it easier to list and trade green bonds, social bonds, and sustainability bonds to raise funds for sustainable projects.



Green Bonds: Investors can use green bonds to satisfy critical natural environment and natural system mandates to address climate risks as a part of their portfolio construction.



Social Bonds: Investors benefit from easy access to globally recognised socially responsible investment options which focuses on upholding the rights, well-being and interests of people and communities.



Sustainability Bonds: Investors benefit from easy access to globally recognised environmentally and socially responsible investment options which are specifically designed to raise money for environmentally - and socially responsible initiatives.



Transitions Segment (Bonds): Facilitates raising of debt for companies that are transitioning to a low carbon economy and allowing investors to partake in this journey.



Sustainability-Linked Bonds: Investors can benefit from ease of access to Sustainability-Linked Bonds that meet agreed goals related to sustainability and transition.



ESG Index futures: Index future based on the tradable and equally weighted Top 30 index, calculated on a real time basis.



ESG data on listed companies: ESG data can help investors understand the ESG practices of companies and use this to supplement investment decision making. The JSE offers ESG data on over 300 ESG indicators.

Sustainability and Climate Change Disclosure Guidance



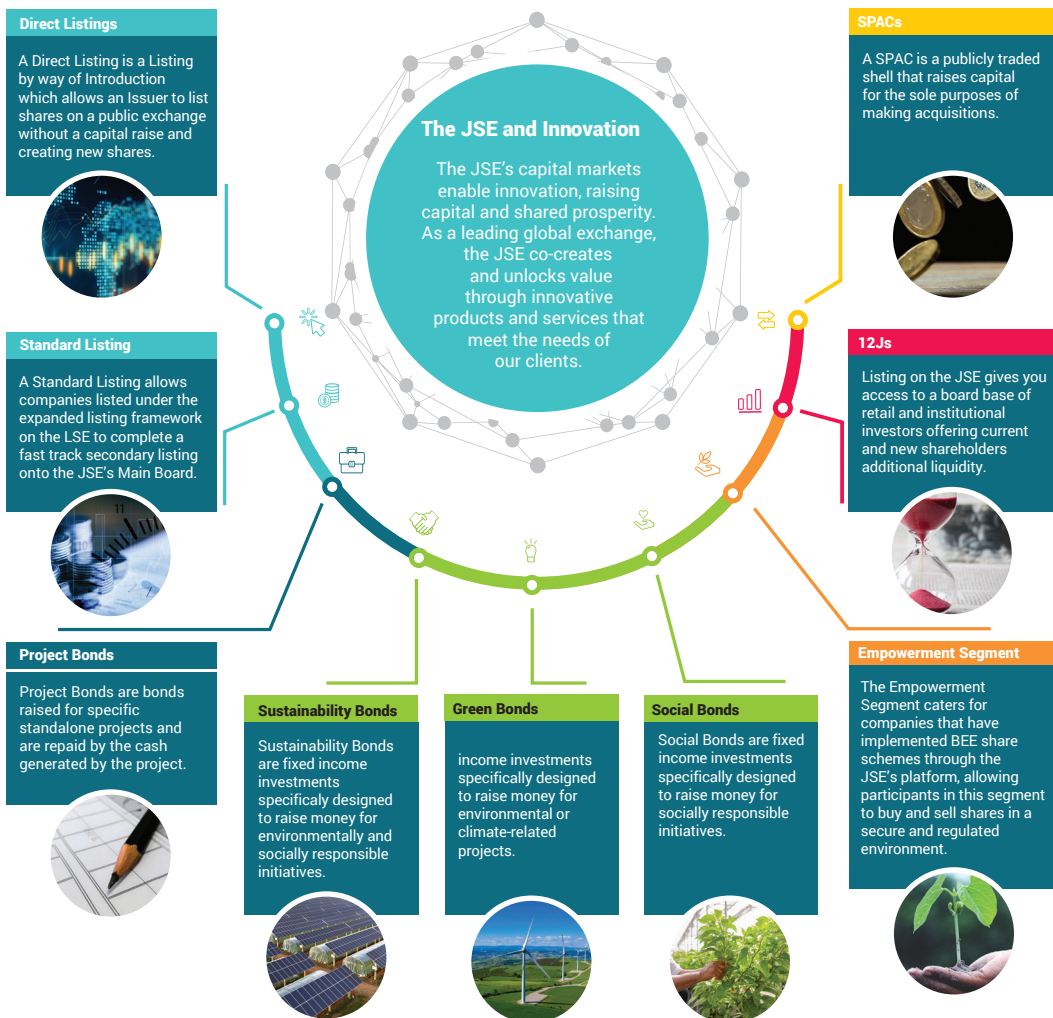
Sustainability Disclosure Guidance: The JSE has issued a guidance that includes a broad ESG disclosure guidance for the market (predominantly issuers) accompanied by a more granular set of guidance on climate change. The guidance is not intended to replace any of the global disclosure initiatives but rather seeks to help companies navigate the landscape of reporting standards, and to provide explicitly for the South African context.



Climate Change Disclosure Guidance: The guidance aims to integrate climate-related information for the first time, while also providing additional resources that can help deepen the journey into climate-related disclosure for those that are more advanced.

Innovative listing instruments for a prosperous future

List with the JSE through our suite of cutting-edge listing products.



Turning blueprints into reality

JSE Private Placements (JPP)

JSE Private Placements (JPP) gives issuers and investors a dynamic marketplace for streamlined capital raising enabled by digital access to investment opportunities.

JPP is a digitally efficient marketplace that connects unlisted businesses with institutional investors as well as facilitates this engagement through a secure and digitally efficient platform. It allows investors to connect to an array of available deals where they can review, compare and submit offers.

JSE Private Placements is powered by fintech leader, Globacap Technology, a regulated private placement and capital management platform that digitally administers over £1 billion of private shares and debt instruments for 60 companies and over 8 000 shareholders in 35 countries. Globacap's unique distributed ledger technology allows digital registrar services to be reflected in real time.



JSE Private Placements

Introducing a new platform that nurtures your business prosperity

The JSE has developed a new digitally efficient marketplace that connects your business with investors that can turn your blueprint into a reality.

JSE Private Placements streamlines the capital raising process by providing investment opportunities using next generation fintech.

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JSE PRIVATE PLACEMENTS

www.jseprivateplacements.co.za
Authorised PSP - PSP No. 51709

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Powered by **globacap**

Your share registry and financial services provider of choice

JSE Investor Services (JIS) is a specialist end-to-end keeper and manager of shareholder registry and communication with more than 2.5 million shareholder records under management. With over 30 years of experience, the JSE Investor Services team is committed to meeting the needs and providing added value to JSE listed companies. With a diversified service offering, JIS delivers shareholder register maintenance, corporate actions, shareholder analytics, managing employee and Black Economic Empowerment (BEE) share schemes, as well as training and education in trust, financial management and BEE schemes functions.

Products and services that unlock added value, significant cost reductions and closer connections with shareholders include:

1. ShareHub, a centralised shareholder communication and filing platform for shareholders.
2. Trust, Financial Management and BEE Schemes training in association with William Radcliffe, a Black-owned specialist firm that enables JSE listed companies through administrative outsourcing.
3. JSE Investor Services Executive Share Schemes provided through the acquisition of the Investec Share Plan Services Proprietary Limited (ISPS).
4. Shareholder analytics and engagement, a tool provided in partnership with global Investor Relations (IR) firm, Orient Capital, through which JSE Investor Services generates equity ownership analytics to listed companies in multiple markets.



Sharehub
Centralised shareholder communications hub.

For additional information contact:

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