



**KOGI IRON
LIMITED**

ABN 28 001 894 033

Company Presentation

February 2014

Iggy Tan

Managing Director





Company
Video





- Vision to be an African Iron Ore producer
- Significant iron ore resource
- Project scale upside
- Advantages in doing business in Nigeria
- Vision to be an ASX 300 company
- Strong Board with credentials to develop project



**Kogi Iron
Limited (KFE)**





Chairman Dr Ian Burston OA Legend in Iron Ore

Has held the following positions

- MD Hamersley Iron
- MD Portman Mining
- NED Fortescue Metals Group
- Chairman Aztec
- Exec Chairman Cape Lambert
- Chairman African Iron Limited

*Dr Burston has put his own money
and time into this project*

**Lead by
Industry
Veteran**



Corporate Snapshot

ASX Code	KFE
Shares on Issue	320.2m
Share Price ¹	A\$0.10
Market Capitalisation	A\$32.0m
Options on Issue	None
Cash ²	A\$1.2m

Major Shareholders³

TGP Australia Limited ⁴	26.8%
Dr Ian Burston	2.1%
Jacjos Investments Pty Ltd	1.8%
J&D Roberts Nominees Pty Ltd	1.5%
1627 Investments Pty Ltd	1.4%

Projects (Nigeria, West Africa)

Ownership

Agbaja Iron Ore Project (178km ²)	100%
Additional 200km ² underexplored land package	100%

ASX Share Price Performance





- Former British colony, population 163m
- Gained independence in 1960
- President elected by popular vote
- Oil and oil products 95% of exports and 80% of budget revenue
- Oil production approx. 2.46 million barrels per day
- GDP real growth rate 7.2% (2011)
- GDP per capita of approximately \$2,600 pa

Republic of Nigeria



- Citigroup¹ Beyond BRICs – 11 Global Growth Generators (3G)
- Highest GDP growth 2010-2050
- Two African countries including Nigeria

Global Growth Generators (3G) countries 2010-2050

Country	2010 GDP/Capita ^[2]	% of US GDP/Capita ^[3]	% Av. Growth	3G Index
 Bangladesh	\$1,735	4	6.3	0.39
 China	\$7,430	16	5.0	0.81
 Egypt	\$5,878	13	5.0	0.37
 India	\$3,298	7	6.4	0.71
 Indonesia	\$4,363	10	5.6	0.70
 Iraq	\$3,538	8	6.1	0.58
 Mongolia	\$3,764	8	6.3	0.63
 Nigeria	\$2,335	5	6.9	0.25
 Philippines	\$3,664	8	5.5	0.60
 Sri Lanka	\$4,988	11	5.1	0.33
 Vietnam	\$3,108	7	6.4	0.86



Nigeria forecast to be in top 10 world economies by 2050!

List of the top 10 largest economies by nominal GDP from 2010 to 2050 (in current USD)^[7]

2010 Rank	Country	GDP	2030 Rank	Country	GDP	2050 Rank	Country	GDP
1	United States	14,612	1	China	57,138	1	China	205,321
2	China	5,860	2	United States	35,739	2	India	180,490
3	Japan	5,465	3	India	24,824	3	United States	83,805
4	Germany	3,292	4	Japan	9,213	4	Indonesia	45,901
5	France	2,602	5	Brazil	8,780	5	Nigeria	42,437
6	United Kingdom	2,259	6	Russia	7,380	6	Brazil	33,199
7	Italy	2,044	7	Indonesia	7,299	7	Russia	19,697
8	Brazil	1,989	8	Germany	6,466	8	Japan	16,394
9	India	1,596	9	United Kingdom	5,819	9	Philippines	14,738
10	Canada	1,572	10	France	5,236	10	United Kingdom	13,846

3G Counties in green boxes



1. Citigroup Feb 2011 Williem Buiter (Chief Economist) [http://en.wikipedia.org/wiki/3G-\(countries\)](http://en.wikipedia.org/wiki/3G-(countries))





- Standard Bank UK – MINT - Mexico, Indonesia, Nigeria & Turkey (MINT)
- Nigeria - Strongest fiscal balance, lowest public debt, population, market-oriented reforms
- Foreign direct investment (FDI) at \$8.9 billion (16% of Africa's total FDI)

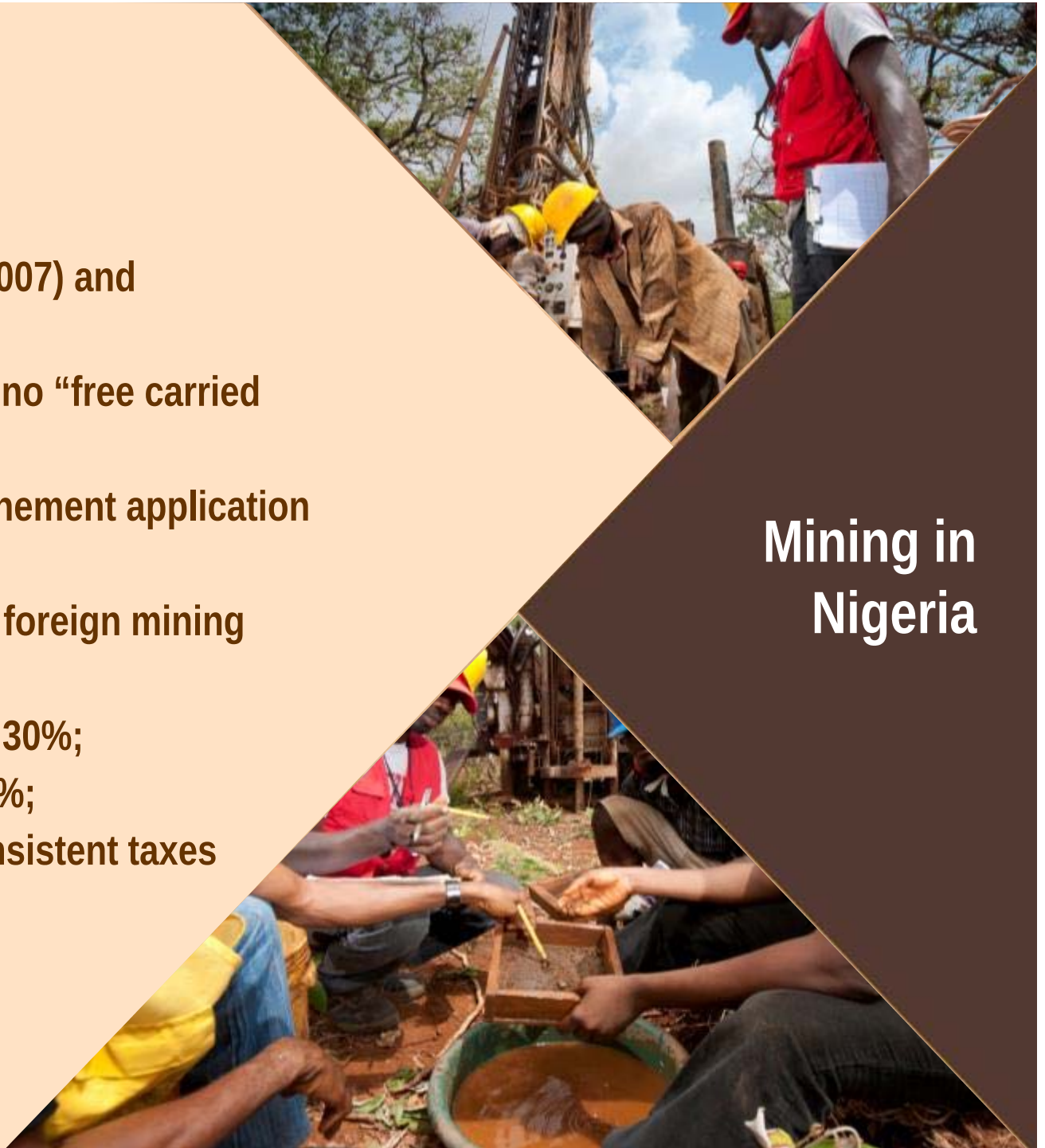
1. <http://businessdayonline.com/2013/04/nigeria-fastest-growing-economy-among-mints-say-analysts/>

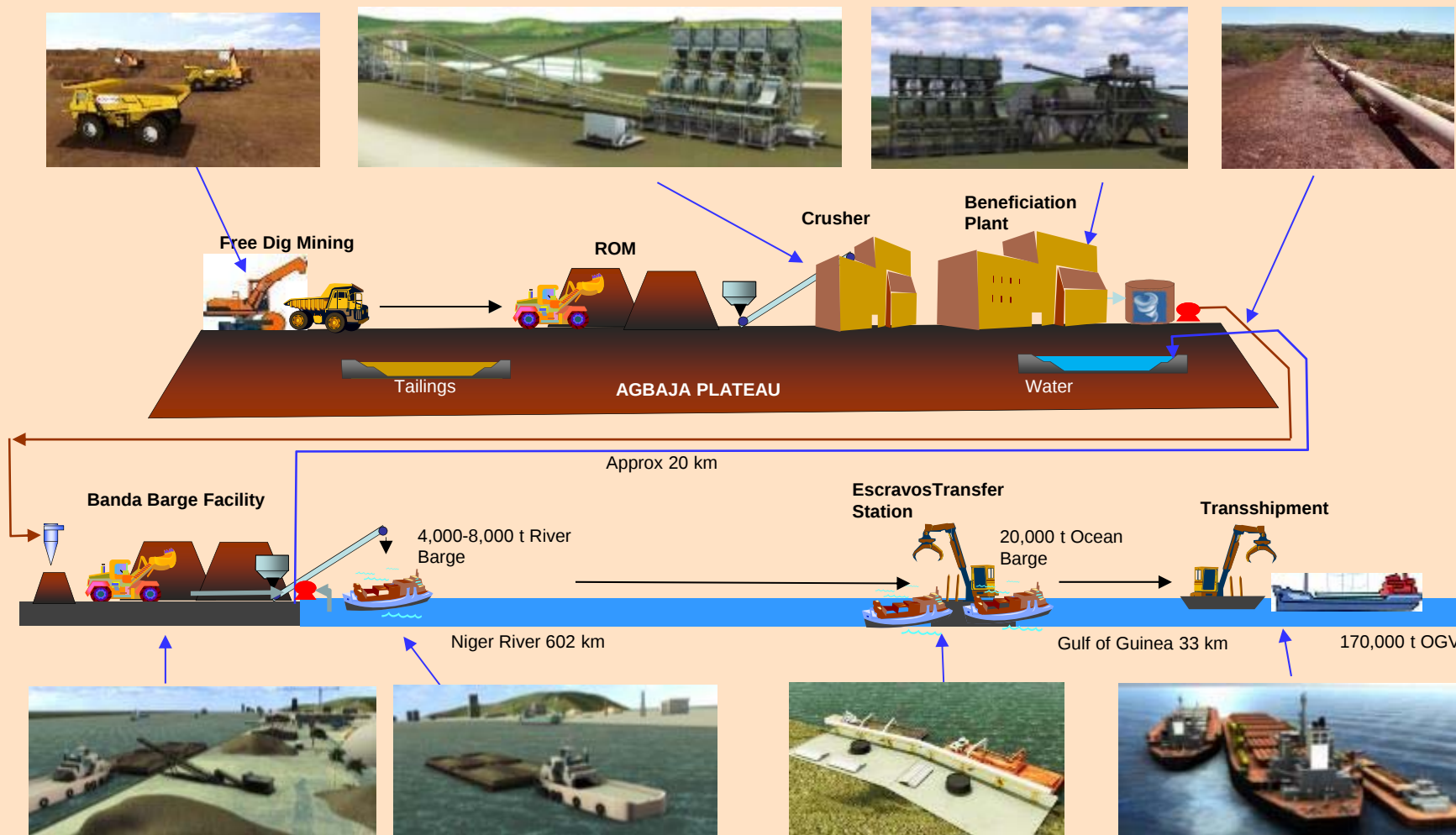




- Contemporary Mining Act (2007) and Regulations
- Government is a regulator – no “free carried participation”
- Relative ease of Cadastre tenement application and approvals
- Favourable fiscal regime for foreign mining companies:
 - Corporate tax rate – 30%;
 - Royalty, iron ore – 3%;
 - Transparent and consistent taxes

Mining in Nigeria

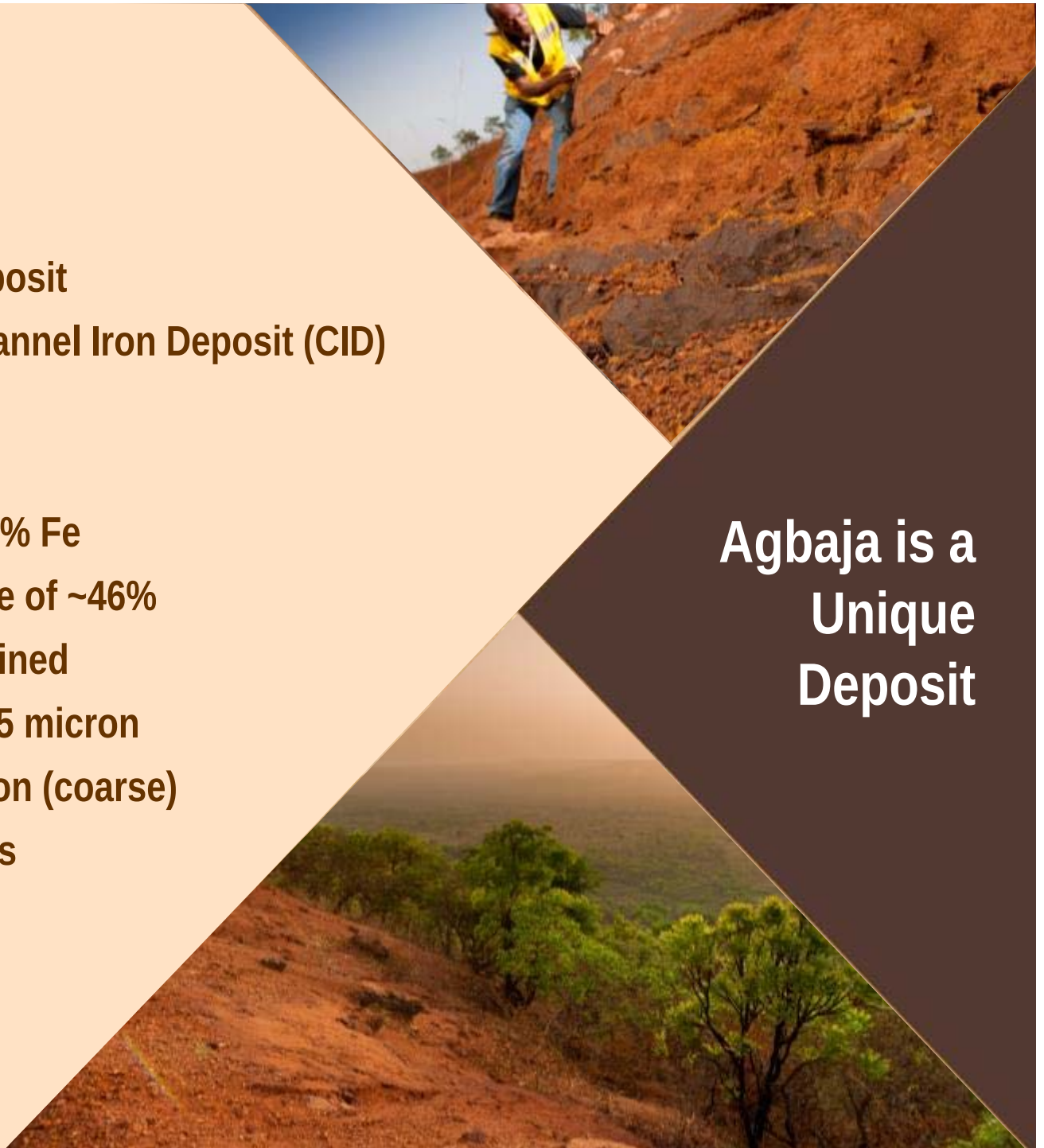






- Highly unique magnetite deposit
- Sedimentary magnetite - Channel Iron Deposit (CID)
- High grades, softer ore
- Less liberation size
- Most Magnetite (BIFs) 25-40% Fe
- Agbaja plant feed head grade of ~46%
- Less tonnes needed to be mined
- Most Magnetite liberates < 45 micron
- Agbaja liberates at 250 micron (coarse)
- Less grinding energy & costs

**Agbaja is a
Unique
Deposit**

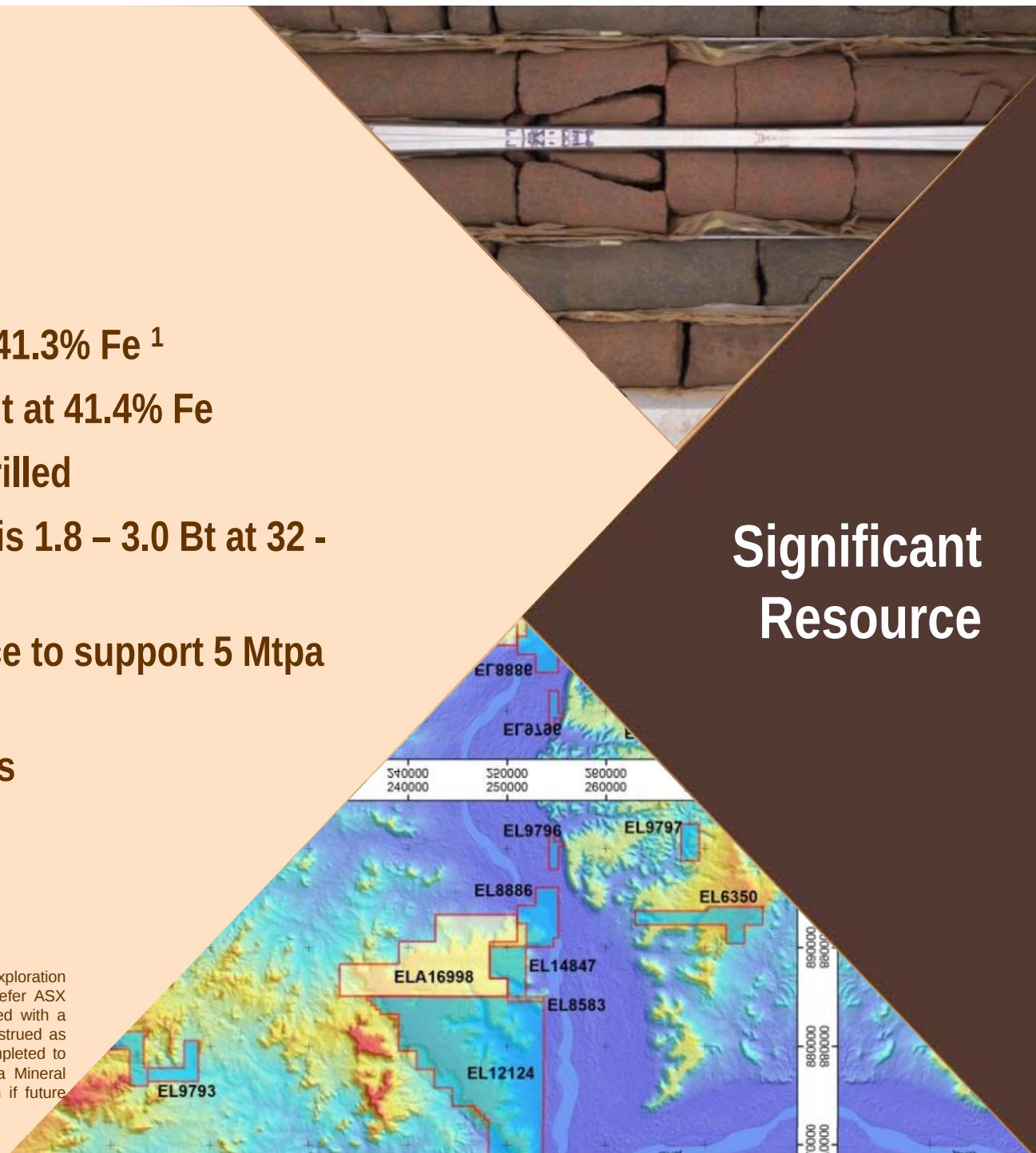


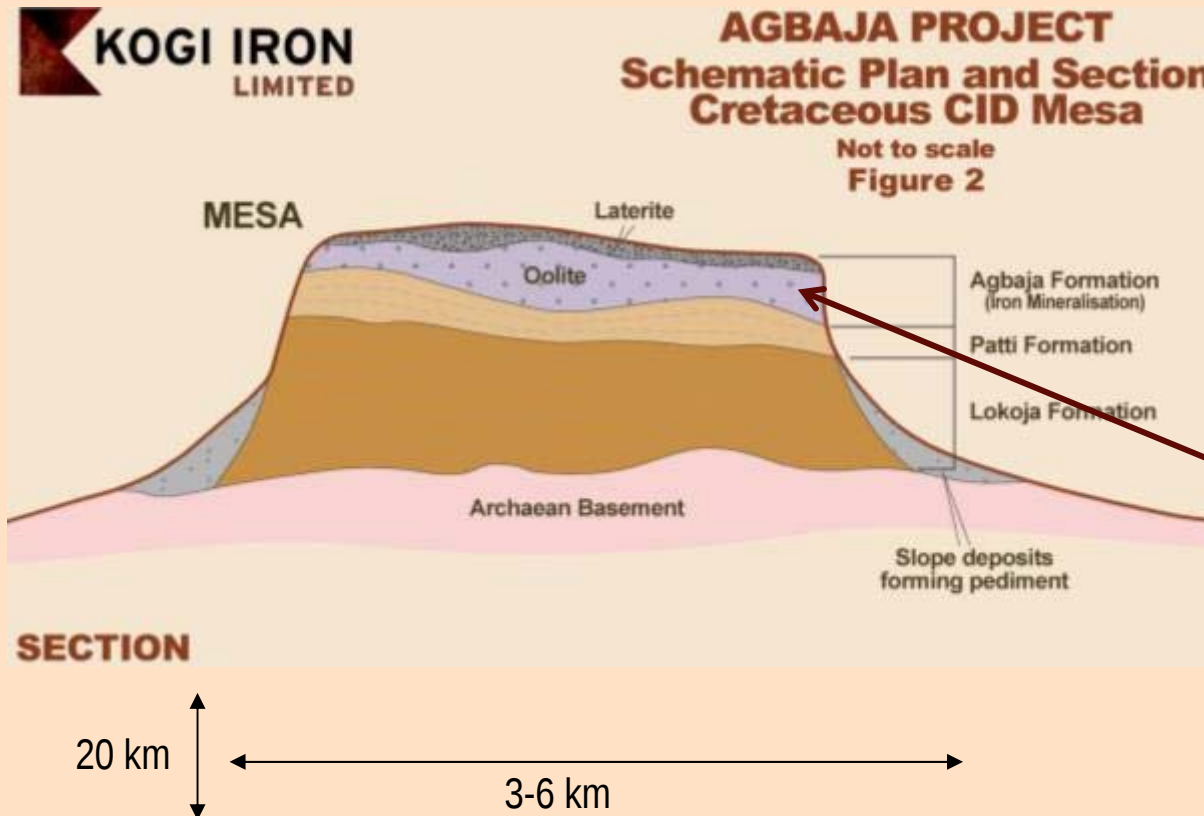
- Project area of 178km²
- Total Resource of 586 Mt at 41.3% Fe ¹
- Indicated Resource of 466 Mt at 41.4% Fe
- Only 20% of the project is drilled
- Current Exploration Target² is 1.8 – 3.0 Bt at 32 - 48% Fe
- Sufficient Indicated Resource to support 5 Mtpa operation for > 35 years
- PFS Mine design for 21 years

**Significant
Resource**

¹ At 20% Fe cut-off, after completion of approximately 14,000m of RC drilling

² The Exploration Target mentioned in this presentation is an estimate of the exploration potential for the type of mineral deposit and geological setting (for details refer ASX Announcement dated 16 September 2013). The Exploration Target is quoted with a range of tonnages and grades, and should not be misunderstood or misconstrued as estimates of Mineral Resources. There has been insufficient exploration completed to date to more confidently determine the quality and grade, or to estimate a Mineral Resource in accordance with the JORC Code 2012. Further, it is uncertain if future exploration will result in the determination of a Mineral Resource.





- Low strip ratio
- Soft and friable ore
- Moderate grinding





Study Area	Company
Resource	Coffey Mining
Mine Planning	Coffey Mining
Metallurgy & Process	Tenova Australia
Bioleaching	Senders Consulting
Pipeline	Patterson & Cooke
Barging	Prestedge Retief Dresner Wijnberg
Operations	Wilson & Associates
Market	AME Group
Financial Modelling	NPV Pty Ltd
Environment & Social	Greenwater Environmental Services Ltd



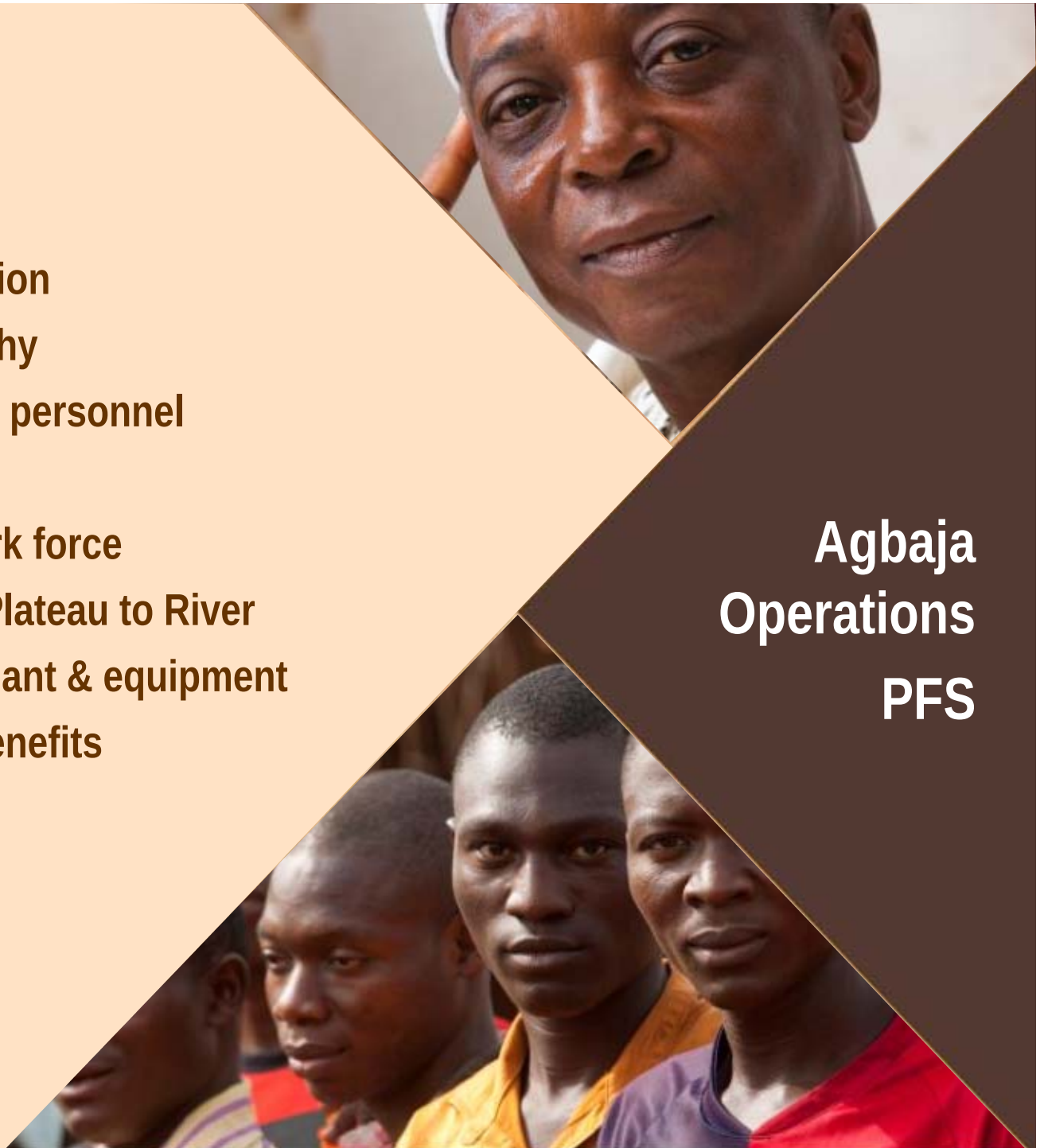
Preliminary Feasibility Study





- 24 Hour, year round operation
- “Employ at Gate” philosophy
- Employment of around 540 personnel
- Strong local content
- 800 -1000 construction work force
- Road to be constructed – Plateau to River
- River transport system – plant & equipment
- Tremendous community benefits

**Agbaja
Operations
PFS**





- Mine plan design for first 21 Years
- Stage 1 and Stage 2 mine areas
- Life-of-mine average strip ratio of low 0.55 to 1
- Avg annual plant feed of 11 Mtpa
- Avg feed grade of 46%
- Low mining costs of US\$8.12/t of concentrate produced
- Due to high feed grade, low strip ratio, no drill and blast, short haul distances, African labour rates, & competitive pricing
- Distinct advantage of Agbaja

Mining Operations





- Three stage simple crushing
- Moderate intensity grinding
- Coarse liberation size of 250 micron
- Low intensity magnetic separation
- Bioleaching pond circuit
- Simple beneficiation process
- Natural gas power plant
- Overall yield of 45%
- Operating costs of US\$13.96 /t concentrate
- Final product 56% Fe

Processing Operations



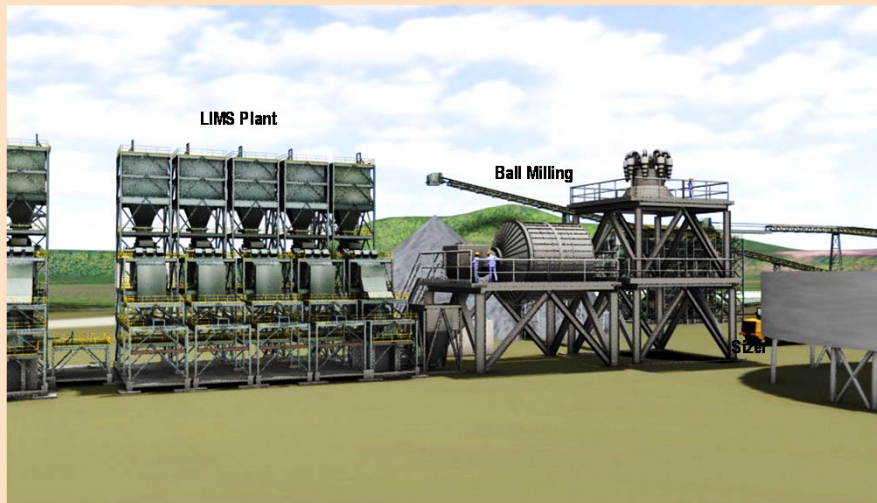




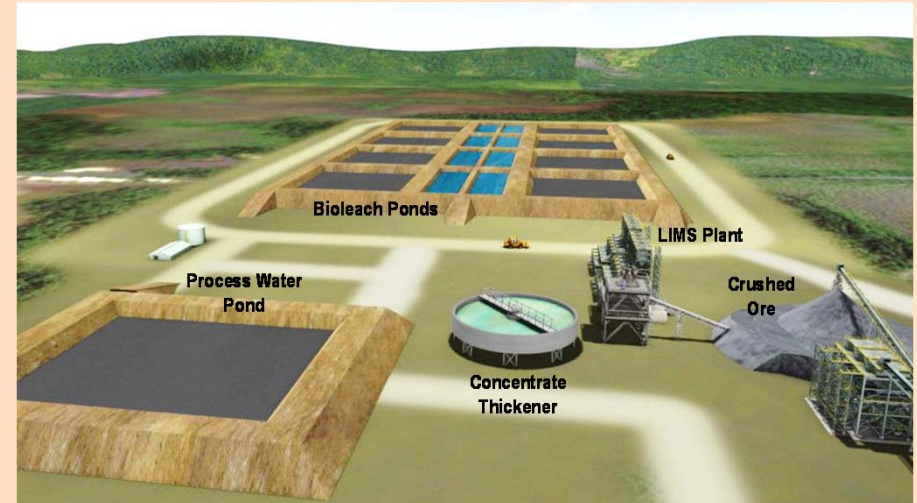
ROM Pad & Primary Crusher



Screening and Crushing Plant



Ball Milling and LIMS Plant



Bioleach Circuit





- Concentrate filtered < 10% moisture
- Barging lowest cost form of bulk commodity transport
- Shallow river barges 21 m x 286 m long
- Transport 602 km to Escravos Transfer Station
- 20,000 t Ocean Barges
- Transshipment Facility in Gulf of Guinea
- Loading of cape size ships
- Total barging costs of US\$18.77/dmt
- Rate of 2.96 c/t/km.



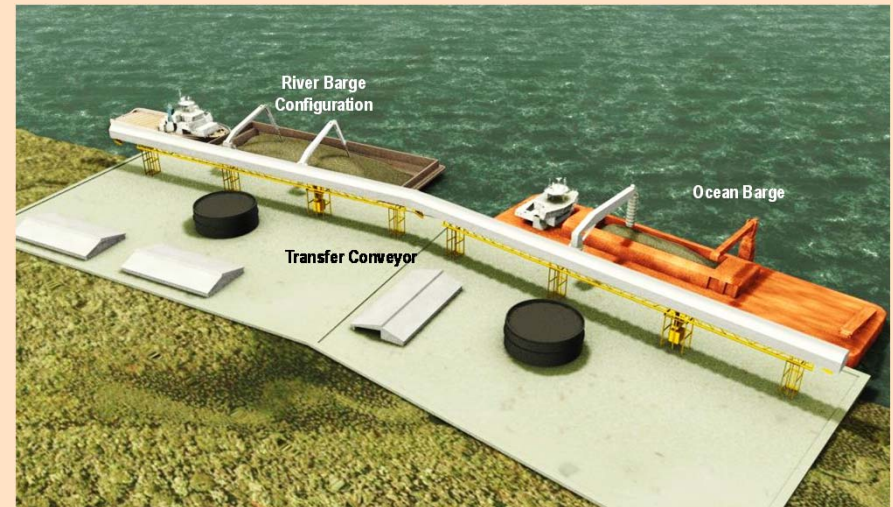
Barging Transport



Barging Transport



Banda Barge Facility



Escravos Transfer Station



Barge configuration with push boat



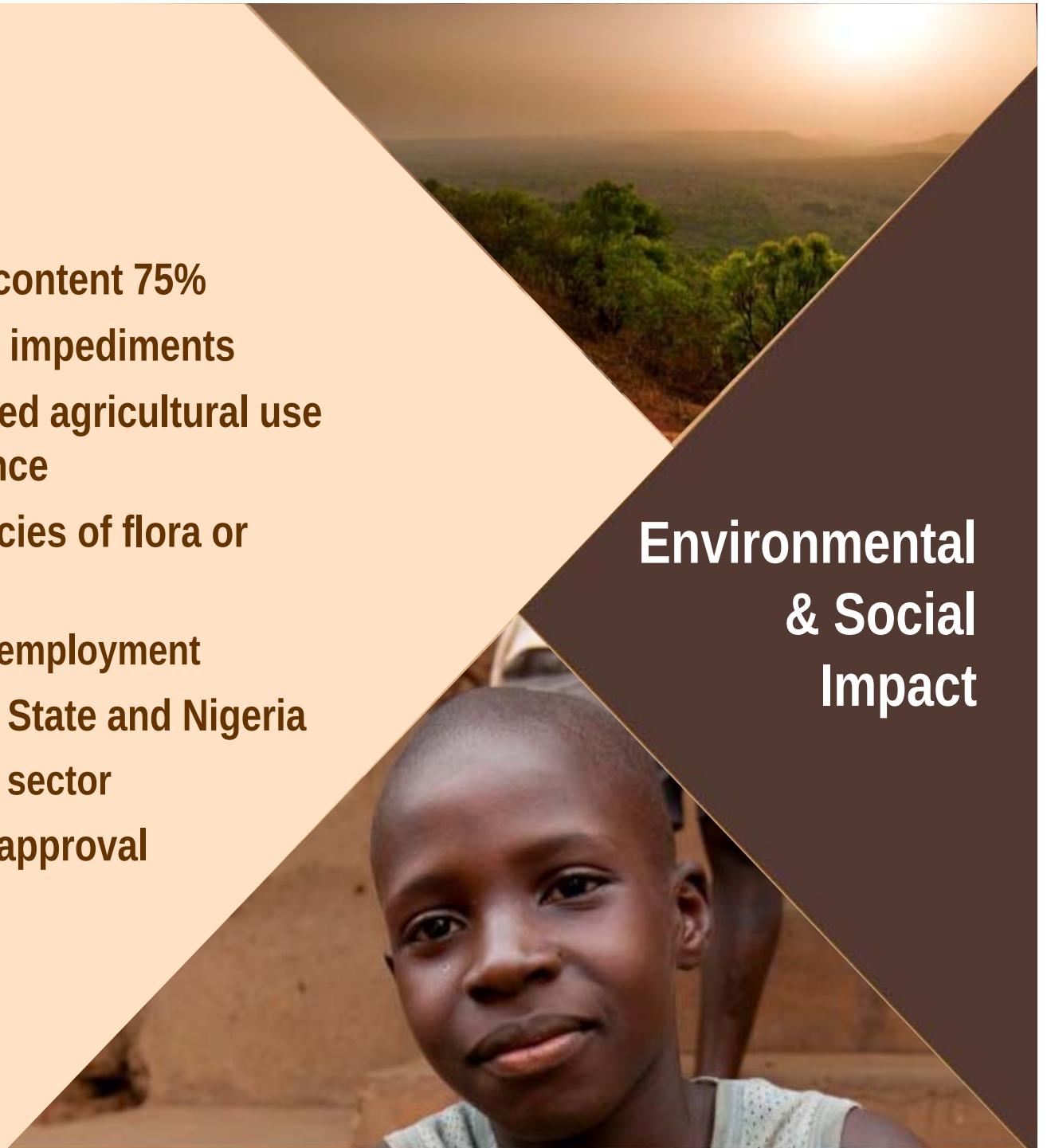
Gulf of Guinea Transhipment Facility





- Current local employment content 75%
- No environmental or social impediments
- Low value scrub land, limited agricultural use or environmental significance
- No rare or endangered species of flora or fauna
- Large social benefits - local employment
- Significant benefit for Kogi State and Nigeria
- Growth in support industrial sector
- EIA submitted and waiting approval

Environmental & Social Impact





- Capex by Tenova Mining Minerals Group
- Tenova, independent, extensive experience

Item	US\$ M
Mine Development	11.9
Processing Plant	132.7
Pipeline, Banda & Escravos	120.2
Utilities and Infrastructure	108.2
Insurance , First Fills, Spares	32.5
EPCM	46.5
Contingency	45.1
Total Capital Costs	497.1
Capital Cost Intensity /t	US\$ 99.4 /t

The background of the slide features a large industrial facility, likely a water treatment or mining processing plant. It includes large blue cylindrical tanks, metal walkways, and structural steel. The image is partially obscured by a dark diagonal overlay on the right side.

**Capital Costs
Estimates**



- Opex by Tenova, PRDW, mining contractor quotes, + Kogi full operating budget

Item	US\$ /t
Mining	8.12
Processing incl. pipeline	13.96
Barging (FOB)	18.77
General and Administration	2.13
Total Operating Costs (FOB)	42.98

Operating Costs Estimates





- **Saleable product**
- **Low silica ideal for sinter feed**
- **Ideal blend with high silica, low phosphorous product**
- **Kogi expects some price discount for Al and P**

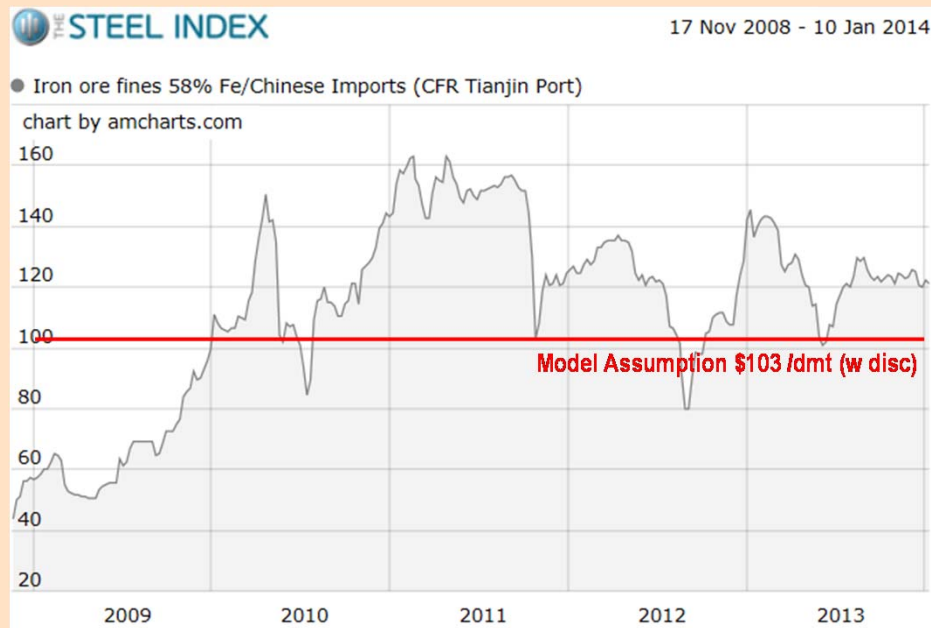
Component	%
Fe	56.0
SiO2	3.8
Al2O3	6.6
P	0.25
S	0.03
LOI (1000)	7.28
Sizing P80	193 μ m

**Kogi Agbaja
Fines Product**

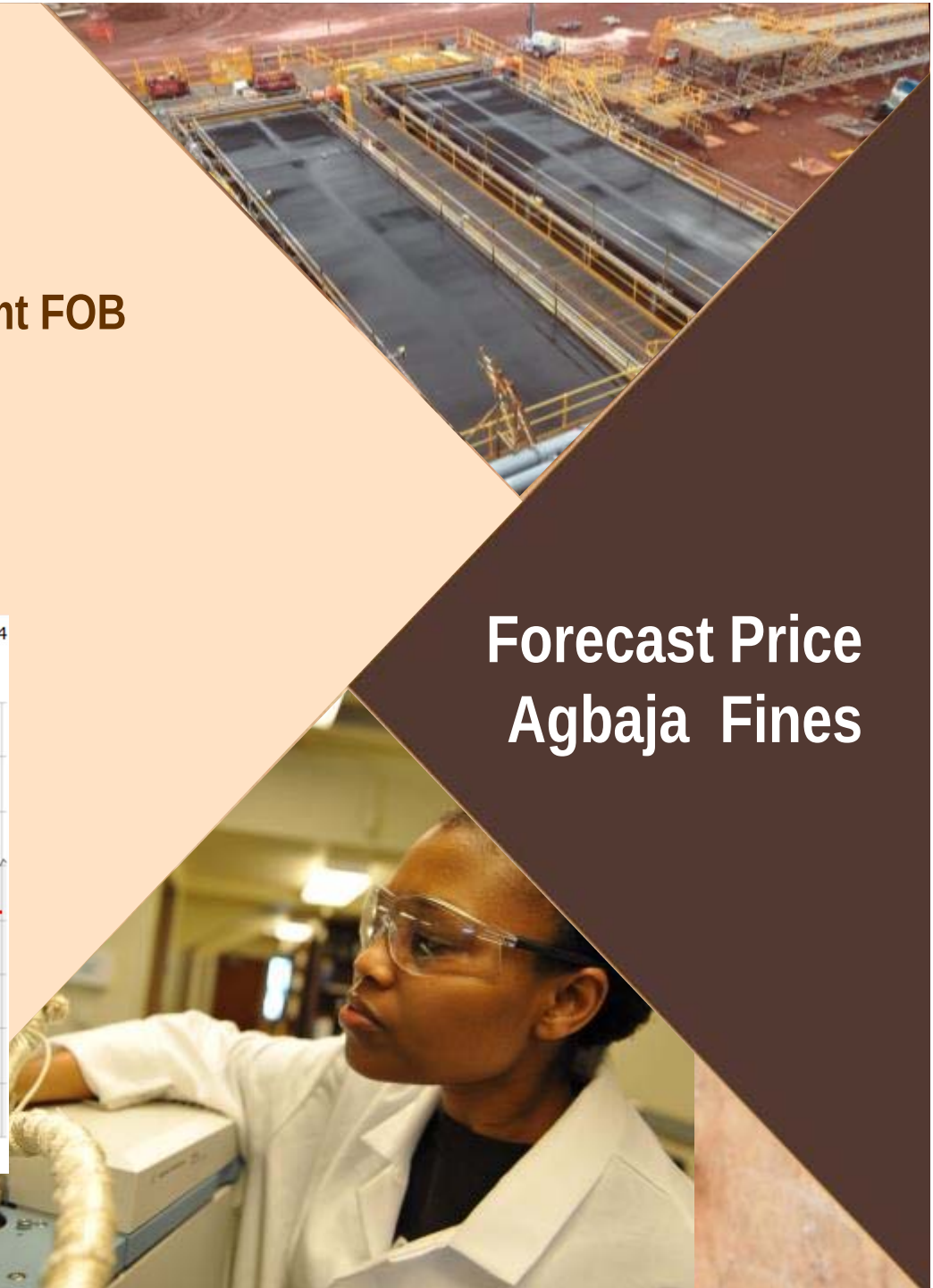




- Long term forecast price of US\$ 73 / dmt FOB
- Using 58% CFR Tianjin historical
- Discount of US\$7 /dmt for Al + P
- Discount of US\$5 /dmt for lower Fe



Forecast Price
Agbaja Fines



- Positive and robust project
- Attractive returns with 4 year pay back
- Gross margin of US\$ 30/ dmt

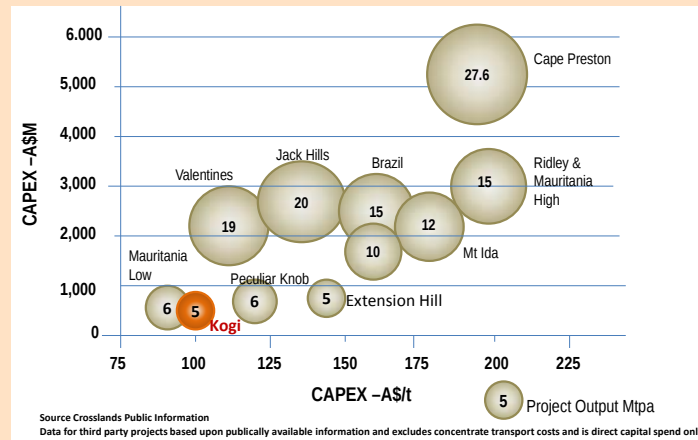
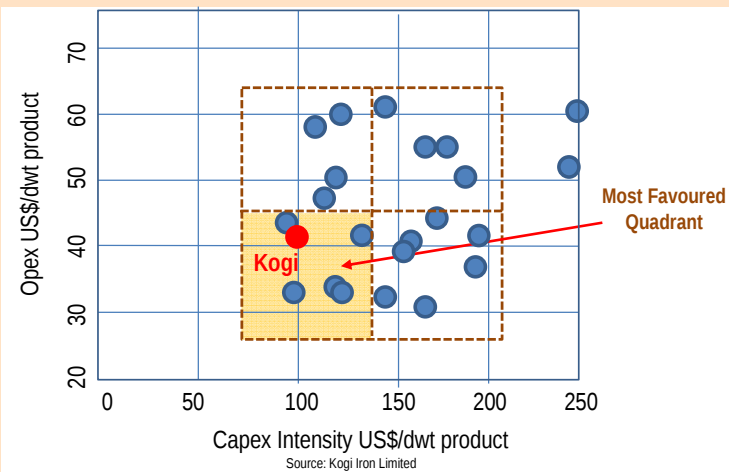
Component	Disc	%
Net Present Value	10%	US\$574 M
	12%	US\$420 M
	14%	US\$302 M
Internal Rate of Return		23.7%
Pay back		4 Years
EBITDA (Ave pa)		US\$136 M pa
Gross Margin (per tonne)		US\$30/t

The background of the slide is a collage of business-related images. It includes a close-up of a hand using a calculator, a computer monitor displaying a bar chart, and a close-up of a computer keyboard. The text 'Financial Analysis' is overlaid on the right side of the slide in a large, white, sans-serif font.

**Financial
Analysis**



- Opex of \$42.98 /t – bottom half of global magnetite projects
- Capex Intensity of \$99.40/t – bottom quartile of global magnetite projects
- In most favoured quadrant



Project Benchmarking



- Investec Bank
- Opportunity to break the current iron ore supply oligopoly
- China is over-dependent on iron ore imports from Australia and Brazil
- “Low hanging fruit” in West Africa in terms of large scale, low cost, long life deposits
- Many undeveloped West African projects are proximal to port/rail infrastructure
- Lower capital intensity and operating costs opportunities

**West Africa
Next Global Iron
Ore Hub**





- Vision to be a African Iron Ore Producer
- Significant Iron Ore resource & scale
- Highly attractive project with strong returns
- Strong Government and Community support
- Entering a very exciting phase
- Building strong momentum

*Kogi Iron has the scale, the strategy
and the team to deliver*

**Value
Proposition**



Forward-looking Statements

This presentation contains forward-looking statements which are identified by words such as 'anticipates', 'forecasts', 'may', 'will', 'could', 'believes', 'estimates', 'targets', 'expects', 'plan' or 'intends' and other similar words that involve risks and uncertainties. Indications of, and guidelines or outlook on, future earnings, distributions or financial position or performance and targets, estimates and assumptions in respect of production, prices, operating costs, results, capital expenditures, reserves and resources are also forward looking statements. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions and estimates regarding future events and actions that, while considered reasonable as at the date of this announcement and are expected to take place, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of our Company, the Directors and management. We cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur and readers are cautioned not to place undue reliance on these forward-looking statements. These forward looking statements are subject to various risk factors that could cause actual events or results to differ materially from the events or results estimated, expressed or anticipated in these statements.

Competent Persons' Statement

The information in this PFS presentation that relate to Mineral Resources for the Agbaja Project is based on information compiled by David Slater, Principal Resource Geologist of Coffey Mining who is a Chartered Professional Member of The Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists and by Dr Warwick Crowe, of International Geoscience who is a Member of the Australian Institute of Geoscientists. Both David Slater and Dr Warwick Crowe have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. David Slater and Dr Warwick Crowe each consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.



Discover
a World Class
iron ore
opportunity
in Nigeria

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Shareholders are encouraged to visit the Company website (www.kogiiron.com) and sign up to email alerts to receive the latest information released to the ASX.

