

Opportunities in ceramic tiles, gypsum boards, sanitaryware and elevators

Manufacturing Africa

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Localisation opportunities in Ethiopia's construction sector

Context and objectives



Manufacturing Africa aims to **boost foreign direct investment** in **key manufacturing sectors** by **removing investment barriers, enhancing business linkages, and encouraging investor engagement.**



In Ethiopia, continued growth in **residential, commercial and infrastructure development** is driving demand for a **wide range of construction materials and building systems.** Expanding domestic **manufacturing capacity** presents an **opportunity to reduce import dependence, strengthen supply resilience, create skilled employment** and support **industrial development.**



An **assessment** was undertaken to **identify and evaluate high-potential manufacturing value chains** serving the **construction sector.** The analysis examined **market demand, supply-demand dynamics, local production capabilities** and overall **investment attractiveness** across selected product categories.



This document presents findings for four **value chains** identified as offering particularly **attractive opportunities** for local manufacturing expansion and investment: **ceramic tiles, gypsum boards, sanitaryware ceramics and elevators.**

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1 Context



Ethiopia's robust economic growth (~7% GDP in 2024) and **construction sector expansion** (~21% of GDP, ~8% annually) **make it an attractive market**. **Demographic trends** such as a ~2% annual population increase and **rising urbanization** (~5% annually) drive this growth. Ethiopia's market appeal stems from its **growth potential, long-term competitiveness, and governmental backing**

2 Market trends and outlook



Demand for ceramic tiles in Ethiopia is expected to **grow significantly**, driven by underlying housing and construction needs. As construction activity accelerates, the gap between demand and local production could expand substantially, increasing from approximately **USD 58 million today to as much as USD 295 million under high-growth scenarios**, creating a potentially attractive investment opportunity.

3 Feasibility in Ethiopia and Key risks/mitigations



Ethiopia is positioned to **scale domestic ceramic tile production**, supported by **relatively low input and labour costs, and access to local natural gas and coal**. **Key risks** include market cyclicity, financial constraints, energy and infrastructure vulnerabilities, and regulatory challenges. These can be **mitigated through long-term partnerships, product diversification, robust financial planning, and local partnerships**. **Ongoing economic reforms** (e.g., industrial park development, currency liberalization, and trade reforms) further support the manufacturing environment.

4 Example project: Economics



An illustrative investment in a medium-scale¹ factory demonstrates potential to unlock an **NPV of 34.2M USD** and an **IRR of 22%, while capturing ~14% of local demand**, compared to total local production covering only ~50% of the projected demand

5 Location and entry options


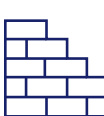




A site close to Addis Ababa is favourable due to **minimized security risks** and **proximity to input materials**. Moreover, **greenfield** stands out as the most attractive entry option compared to brownfield/JV

1. 10Mn sq meters/annual capacity is taken as an example


1 Ethiopia's investment landscape is strengthened by the localization of input materials

Economic and construction growth, supported by demographic shifts makes Ethiopia an attractive market ...with strong fundamentals for investment


 <p>Robust economic growth</p>	<p>~7% GDP growth in 2024</p>	<p>4Bn+ FDI investments in 2024</p>	<p>~6% FDI growth in 2025</p>
 <p>Large construction sector</p>	<p>~21% Share of GDP in 2024</p>		<p>~8% Baseline growth between 2026-2029</p>
 <p>Favourable demographics</p>	<p>~2%+ Population growth; median age of 19 in 2025</p>	<p>~2Mn Urban population growth in 2024</p>	



Market opportunity
Predictable demand for ceramic tiles is expected to significantly increase, driven by rapid urbanization



Long-term competitiveness
Structural cost advantage over imports due to reliable access to local raw materials and low-cost labour

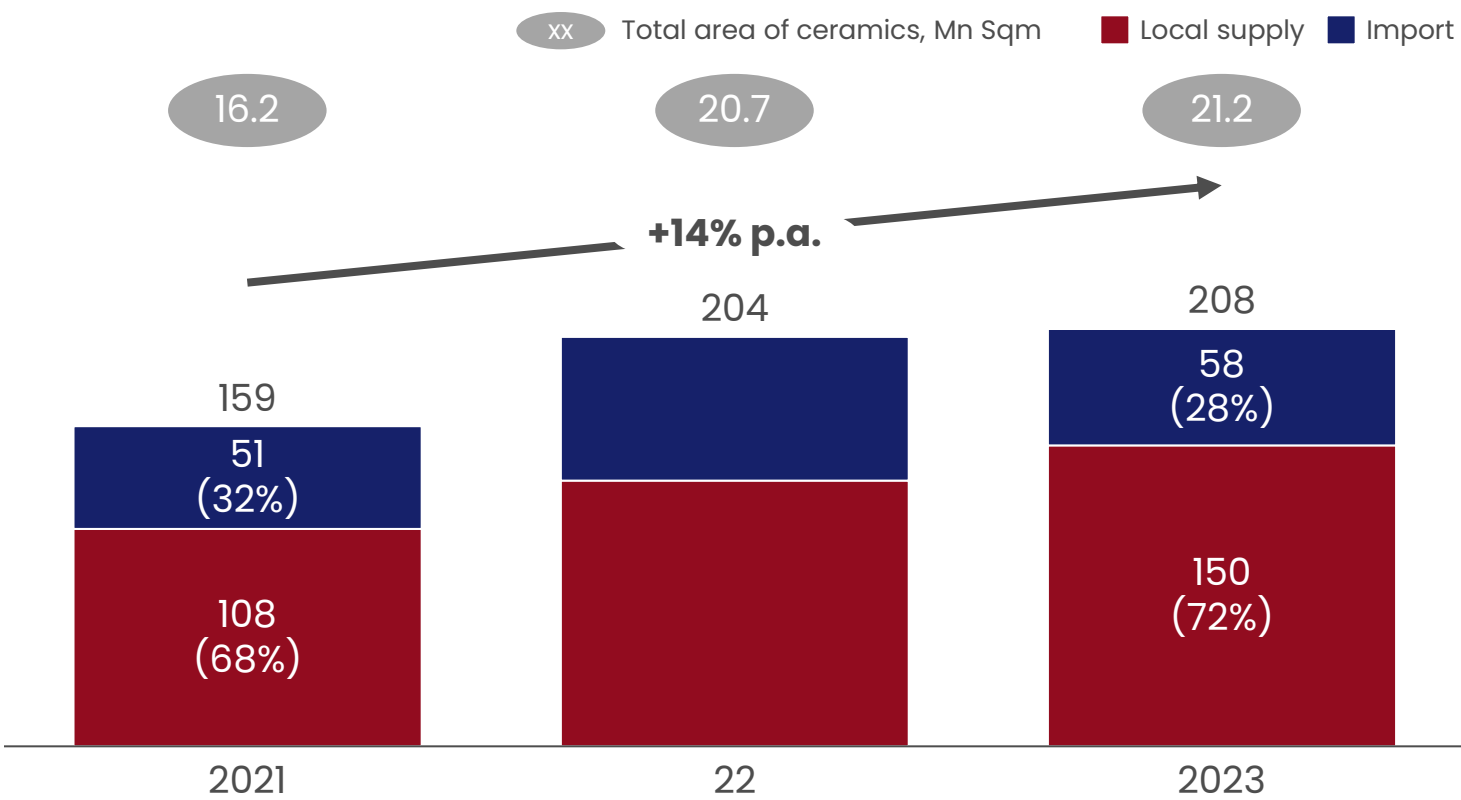


Government support
Strong policy backing for localisation, including import substitution and targeted incentives (e.g., tax holidays, duty exemptions)

2 Demand: Market has historically increased by 14% annually, reaching 208Mn USD in 2023

PRELIMINARY

Historical ceramic tile demand in Ethiopia, Mn USD^{1,2}



1. Based on [client] estimates of local production and trade data for imports
 2. Import data is collected in USD from Trade Map; The local supply is calculated using average prices of 1500 ETB per sq. meter and Forex conversion rates of ~153 ETB/USD. This has been kept constant for all the years, and while conversion rates are much lower historically, the price would also change accordingly



Key insights

Ceramic tile demand in Ethiopia grew ~14% annually, increasing from ~16Mn sqm in 2021 to >21Mn sqm in 2023, driven by rising construction activity

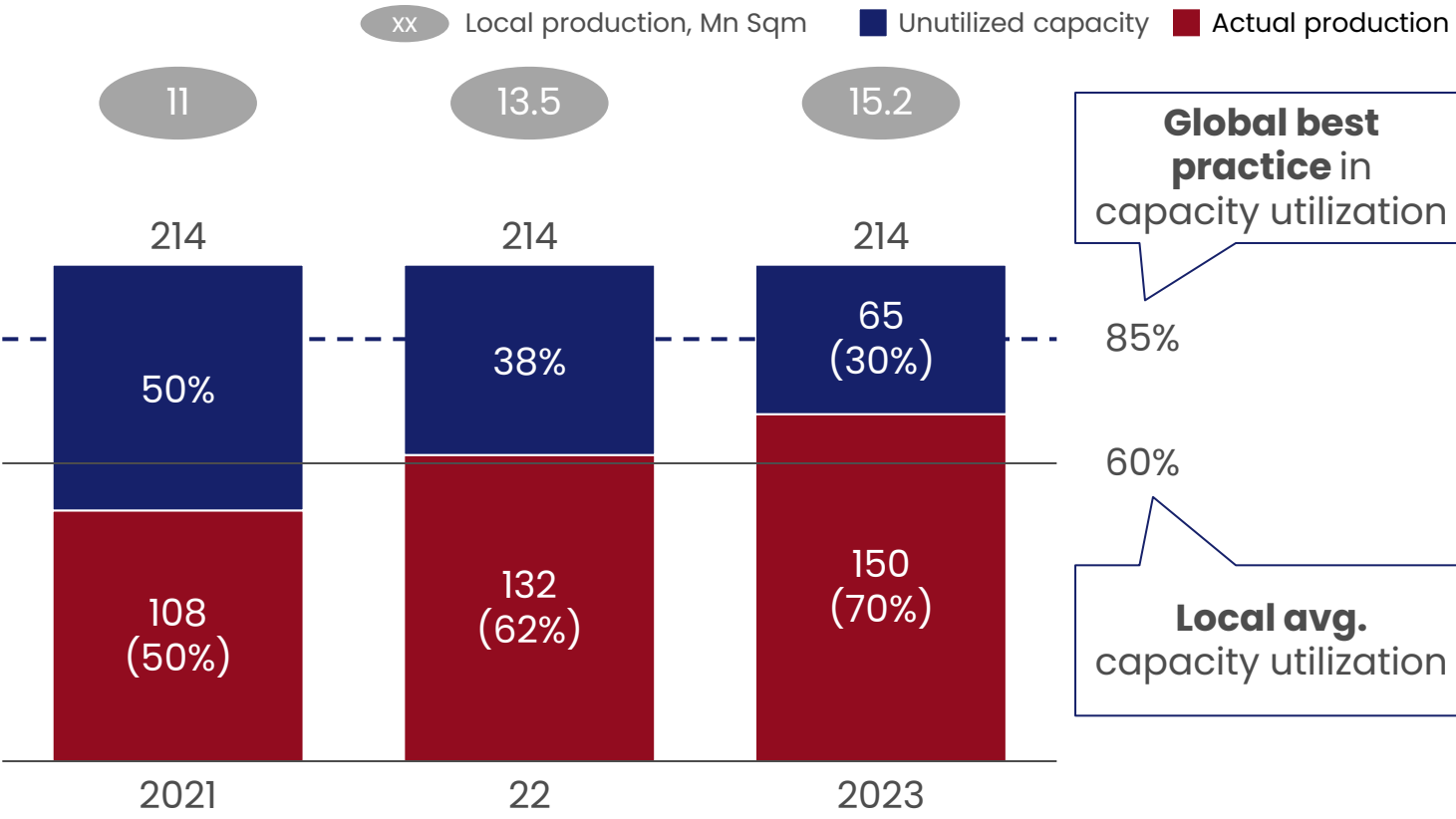
Imports have increased slightly in recent years, yet at a lower rate than local supply, which grew due to higher utilization of installed capacity

Imports still account for ~28% of supply (~USD 58Mn) in 2023, indicating continued reliance on external sources

2 Supply: Local capacity utilization has improved, reaching 70% in 2023, but still remains below global best practice of 80%

PRELIMINARY

Installed capacity and actual supply of ceramics in 2023, Mn USD



1. Total installed capacity value is obtained from total ceramics production area multiplied by a unit price of 1500 ETB per square meter. This figure is then converted to USD at an exchange rate of 153 ETB/USD



Key insights

There are four primary capacity underutilization drivers

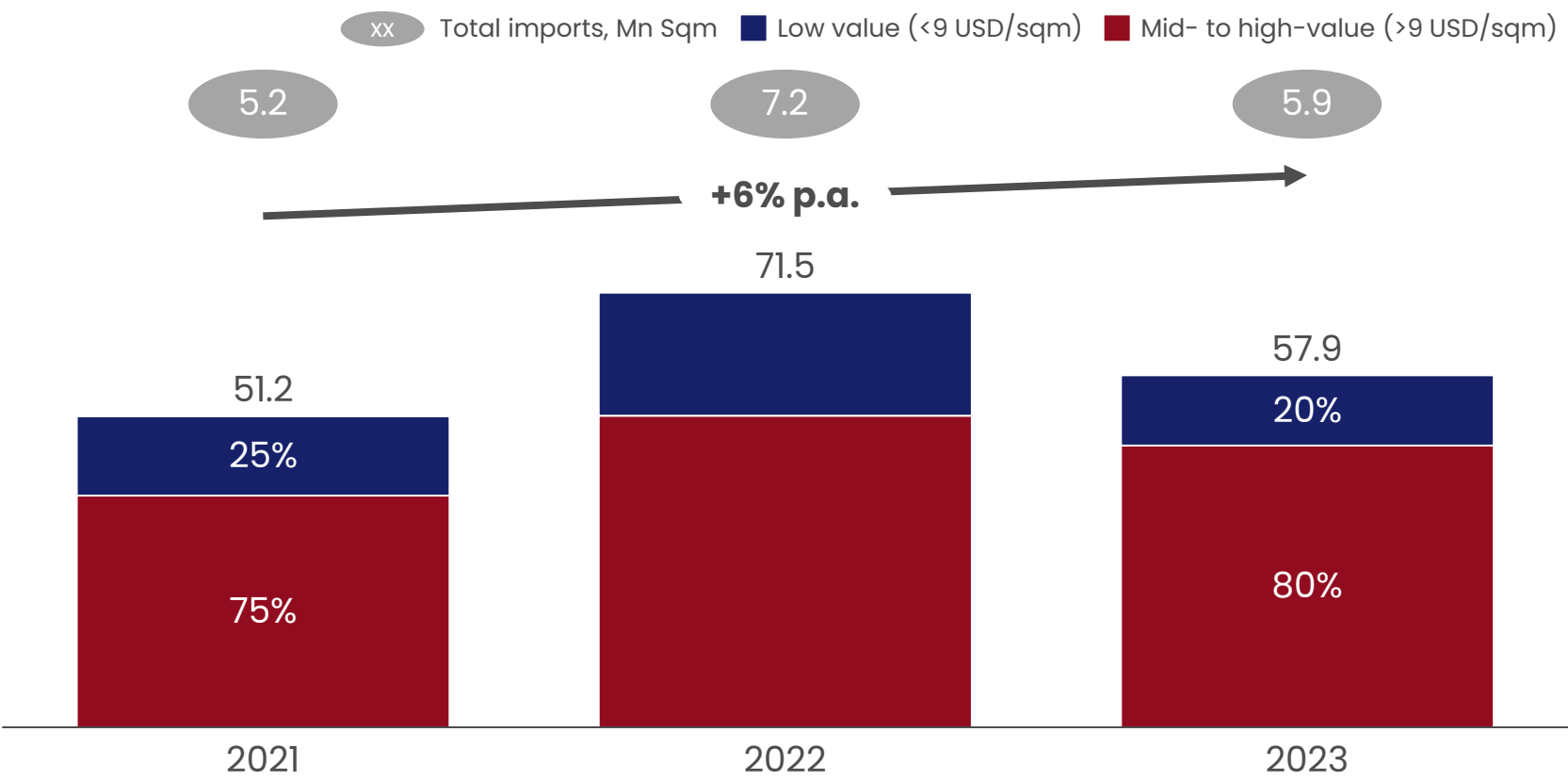
- **Unreliable/insufficient power** affects kiln uptime, so plants cannot run continuously
- **FX shortages delay imports of critical input items** (e.g., glazes/frits, pigments, packaging, etc.), causing stoppages
- **Working capital and financing constraints** limit inventory buffers for raw materials/spares, increasing downtime
- **Operational and logistics frictions** (e.g., process-control maturity, security disruptions) reduce effective run time

Local capacity utilization has improved, reaching 70% in 2023, due to the improvement of some of the above factors

2 Supply: Import levels have stayed consistent, with 80% of imports being mid- to high-value tiles

PRELIMINARY

Ceramic tile imports¹, Mn USD



1. These import values include cost, freight, and insurance up to the Djibouti port, and do not include customs, duties, and other land transport costs to Addis Ababa
 2. Based on the Ethiopian Ministry of Industry's Import Substitution Strategy - 2023



Key insights

- Imports primarily consist of medium to high-end products, which remained largely stable between 50 and 70Mn USD
- Total import costs are higher due to land transport expenses and customs/duties
- This could potentially change, due to the government's focus on local substitution of imported products², highlighting a need for rapid expansion of domestic manufacturing capacity

3 Ethiopia has various key advantages for scaled-up domestic production for ceramic tiles

PRELIMINARY

Dimensions

Key considerations for Ethiopia

Input materials



- **Strong raw-material reserves**, incl. **>20Mn tons of kaolin**, **500k tons of feldspar**, and **21.6Mn tons of clay** to support ceramic tile production

Labour



- **Competitive labour costs**, a workforce exceeding **56 million**, and a **median age of 19** provide a strong structural advantage for manufacturing and other labour-intensive industries
- At the same time, **workforce quality** is improving, with **youth literacy reaching ~85%** (2022) and a rapid expansion in **educational capacity** – universities surpassing 50 by 2025 and TVET institutions exceeding 1,600
- **30% of university graduates majoring in engineering**

Thermal energy¹













- Several **investments are underway to diversify thermal energy sources**, decreasing dependence on imported high-calorific coal
- Initiatives include local production of **natural gas, coal** (e.g., coal washing stations), **and the development of high-calorific fuel from biomass**

1. Coal and natural gas are the typical sources of heat in ceramics (with some producers using electric kilns). For natural gas, both LNG and PNG are widely used in ceramics production, as they both provide the high temperatures and clean-burning environment essential for firing kilns. However, PNG is ideal for factories in industrial clusters with established pipeline infrastructure.

③ There are, however, five key investment risks that require targeted planning and mitigation

PRELIMINARY

Risk category	Description	Impact	Mitigation strategies
Market dynamics 	<ul style="list-style-type: none"> The construction market is typically cyclical, which will be dependent on the economic situation Strong low-cost imports could also impact local production, especially from China and India 		<ul style="list-style-type: none"> Secure long-term contracts with top developers for commercial buildings, hospitals, etc to deliver consistent volumes of ceramics Source inputs locally, optimize cost base (focus on operating expenditure) to deliver competitive prices
Demand outlook 	<ul style="list-style-type: none"> A significant share of future demand is linked to large-scale housing and construction activity, the timing and pace of which may vary 		<ul style="list-style-type: none"> Design the plant for flexibility to produce diverse tile types, catering to the broader market to create sustainable market
Financial challenges 	<ul style="list-style-type: none"> High capex intensity and FX exposure during plant import, commissioning¹, and yield ramp-up challenges High interest rates and constrained long-term financing 		<ul style="list-style-type: none"> Bring an experienced OEM commissioning team and keep them on-site through stabilized yield KPIs Negotiate favourable credit terms on both the suppliers' and customers' sides
Energy & infrastructure platform 	<ul style="list-style-type: none"> Grid instability due to poor quality, voltage fluctuations & maintenance issues Fuel supply variability due to import dependency, rising tariffs, and heavy reliance on the Djibouti logistics corridor 		<ul style="list-style-type: none"> Set up long-term fuel/energy contracts Site near stable industrial corridors/Industrial parks with reliable energy and supply chains
Security & regulatory environment 	<ul style="list-style-type: none"> Security volatility due to conflict in some regions Slow licensing and land approval processes leading to delays in market entry 		<ul style="list-style-type: none"> Locate the plant near the capital to minimize security risks and ensure safe operations Form partnerships with the local private sector partner (incl. other ceramics manufacturers) for guidance on licensing and approvals

1. Commissioning: transitioning the plant from construction to stable commercial production

3 The Government of Ethiopia is also implementing ongoing economic reforms to unlock the manufacturing sector

Economic reforms

■ Already executed ■ Ongoing implementation

 <p>Foreign exchange floatation</p>	<p>Banks and licensed offices are allowed to trade forex freely after the ETB was floated in mid-2024</p> <p>Exporters are allowed to keep 100% of their foreign-currency earnings, and foreign investors can repatriate 100% of capital</p>
 <p>Import/export reforms and initiatives</p>	<p>ECMS¹ automation replaced manual imports/exports, reducing import release time from 44 to 12 days</p> <p>Duty-free, quota-free access to the EU markets through EBA (Everything but Arms)</p>
 <p>Industrial parks development</p>	<p>~13 sector-specific industrial parks have been developed across different regions in the country, led by Industrial Parks Development Corporation (IPDC)</p> <p>Development of ceramic park; Debre Birhan Industrial Park includes ceramics as one of its priority sectors</p>
 <p>'Ethiopia Tamrit' initiative</p>	<p>The government has initiated a national program to strengthen the manufacturing sector by addressing key bottlenecks, encouraging import substitution, and boosting competitiveness through targeted initiatives, including improvements in infrastructure and access to financing</p>

1. ECMS – Electronic Customs Management System

4 Example project: Ceramics can unlock a potential NPV of USD 34.2M and achieve an IRR of 22%, driven by significant demand

PRELIMINARY

Detailed next

Business case outputs		Base case scenario
A Capacity	Total capacity ¹ , units	10
	Investment	CAPEX, total \$M
B Revenue	Annual revenue, avg. \$M/yr.	71.3
B OPEX	Input raw materials, avg. \$M/year	12.7
	Processing cost, avg. \$M/yr.	40.2
Project economics	NPV (up to 2038, 10% discount rate), \$M	34.2
	IRR (fixed prices), %	22
	Operating margin, %	26
	Payback, yrs.	3.2

Highlights

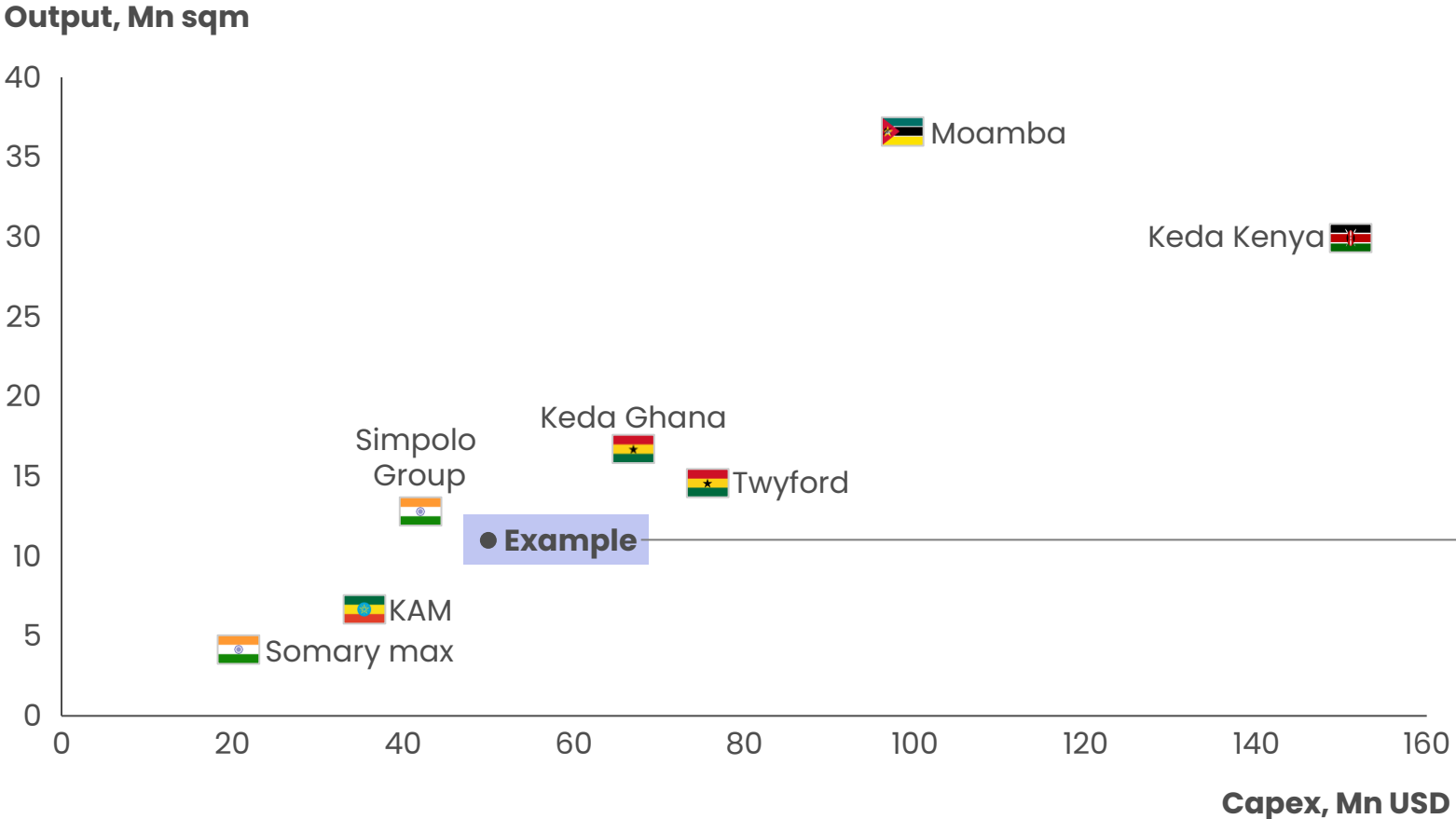
- **Ceramics business case was modelled using regional benchmarks as well as local input prices**, with the base case assumptions having an NPV of USD 34.7Mn and an IRR of 22%, primarily targeting local markets
- **Assumed production capacity is approximately 10.4 million square meters per annum** (200k tons p.a.), in line with medium-scale facilities in comparable regional markets (e.g., Ghana)
- **Development is expected to take approximately 18 months**, although timelines in Ethiopia may extend due to external factors such as import delays and approval processes
- **The opportunity relies on low-cost, locally available raw materials, which account for 26% of OPEX** (clay, limestone, silica, kaolin, and feldspar)
- **The remaining 74% of OPEX relates to processing costs**, primarily driven by the energy-intensive kilning process, where temperatures reach up to 1,300°C to enable material transformation

1. Maximum capacity that can be reached at 90% utilization rate

4 A. In Ethiopia, cultivating multiple medium-scale manufacturers is more feasible due to the balanced level of risks and development pace

ILLUSTRATIVE

Investment needed per production capacity, Mn USD



Proposed option for Ethiopia

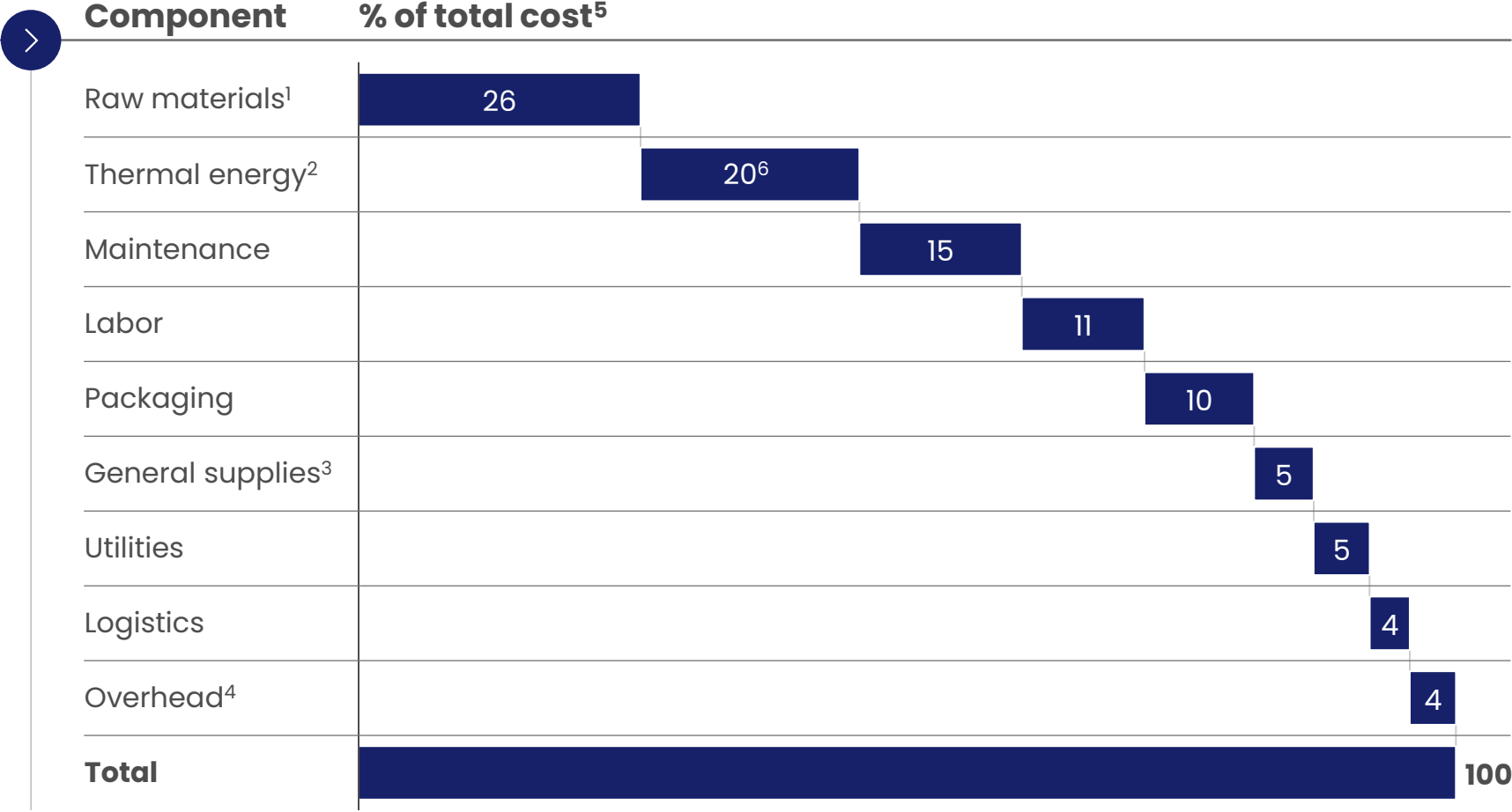
Example project profile

- Example investment in a **medium-scale plant with capex ~50Mn USD; output 10-12Mn sq meter** provides a realistic scale for the Ethiopian market
- Medium-scale plants, which have optimal cost/unit balance, of about 40-80Mn USD for 10-20m sqm/year, offering greater line density and utilization potential than large-scale producers
- Expansion strategies are increasingly modular, with phased add-ons over time

4 C. Operating cost is highly driven by raw materials and thermal energy costs, which contribute nearly half of the costs

Key assumptions

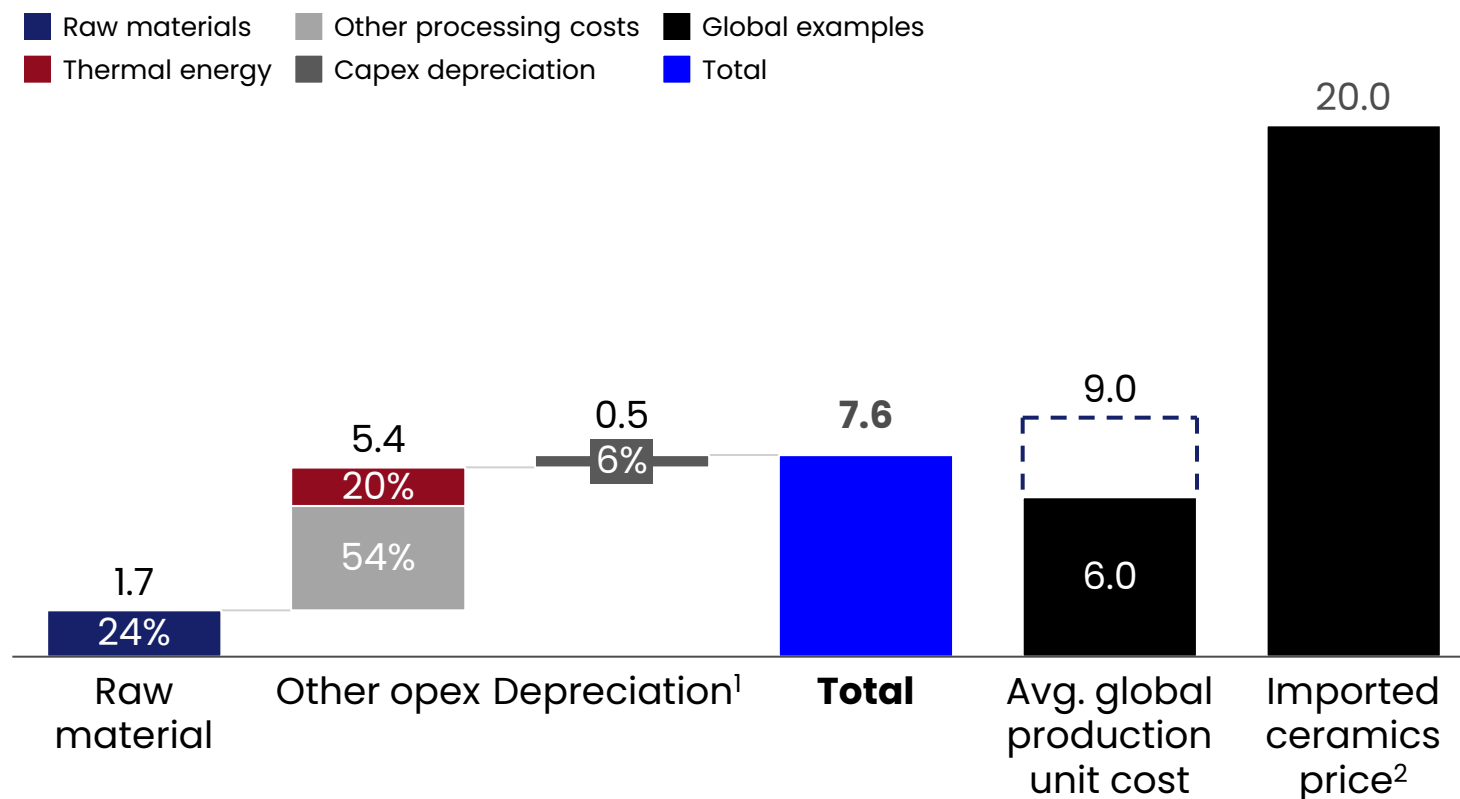
- **The plant is strategically located near key quarries**, ensuring low & predictable costs for clay, silica, limestone, and other inputs
- **A coal-based thermal system runs with a secured fuel supply**, with handling/storage and emissions/maintenance costs embedded in OPEX
- **The facility employs a skilled local workforce**, requiring limited additional training, while most upskilling is administered on the job
- **Operating model reflects local utilities' reliability constraints**, as power outages and backup requirements can increase downtime, restart losses, and materially raise unit production costs



1. Raw materials include inputs for manufacturing, such as clay, feldspar, silicon, etc. It also has some small shares of imported inputs, like glaze
 2. Heat is needed for firing ceramics, which is currently mostly coal-based in Ethiopia. Thermal energy could dramatically decrease in Ethiopia due to the recently started natural gas production
 3. Includes general consumables such as office admin materials and other factory inputs
 4. Overhead includes costs such as professional & legal expenses, promotional expenses, miscellaneous expenses, and Insurance
 5. Benchmark calculated from the local producer with a capacity of 2.5 Mn square meters (20Mn USD in value)

4 C. Local unit costs are expected to match the average global production costs, and are competitive relative to imported ceramics prices

Ceramics production unit cost estimation, USD/sq. meter



1. Depreciation is applied for 10 years for this analysis, but could be lower if used longer-term depreciation
 2. Average purchase price of imported ceramics: mostly high-quality tiles, ranging between 2900-3250ETB/sqm, converted using 153USD/ETB FX rate



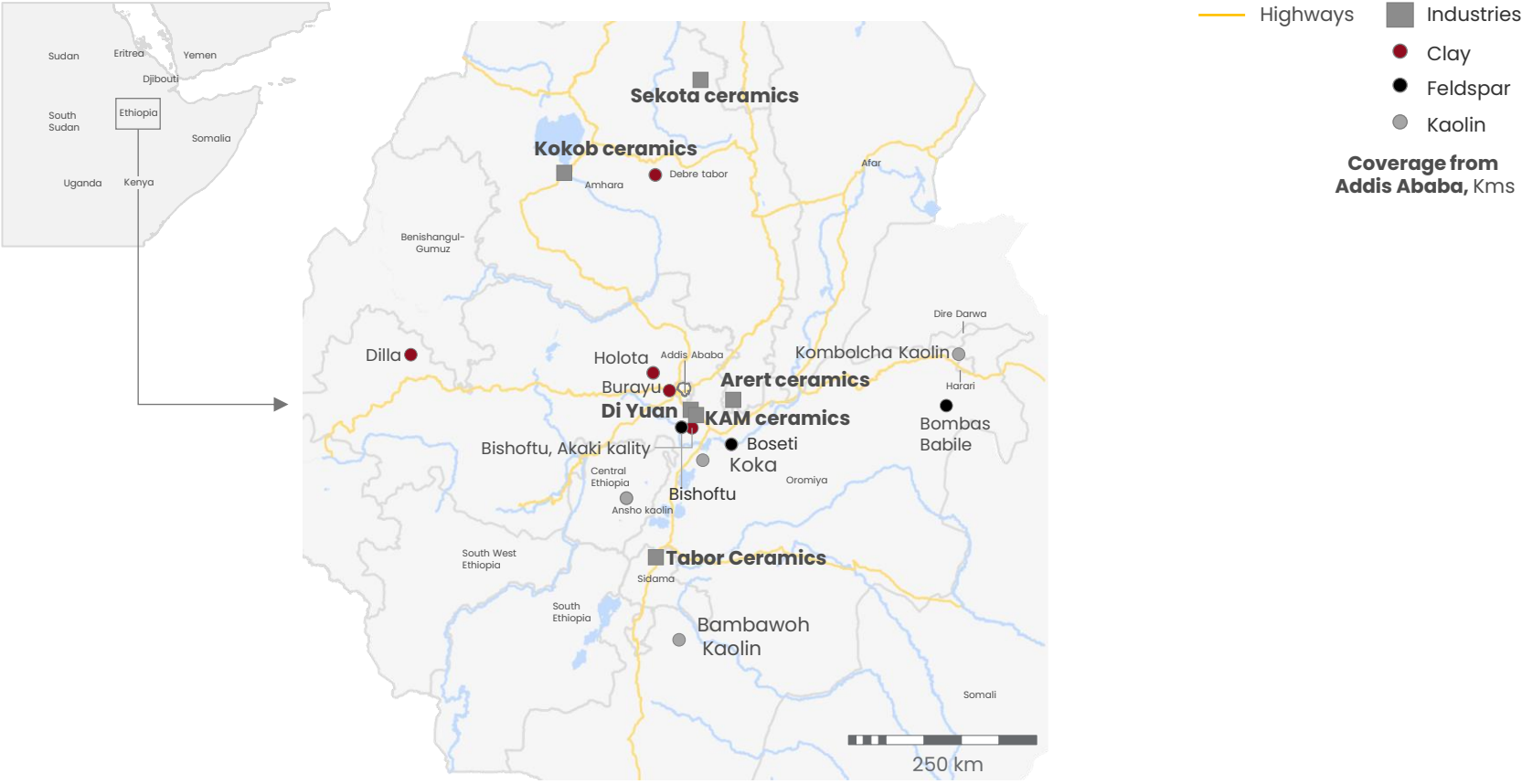
Key insights

- **Other operational expenditure beyond raw materials drives the majority of costs**, accounting for ~71% of the total unit costs
- **Compared to other global players, local unit costs are comparable**, being within the range of 6-9 USD/sq meters
- **The local production cost of 7.6 USD/sq meter provides a significant price advantage over imported ceramics** at approximately 20 USD/sq meter, enabling local producers to sustain strong price competitiveness and margins

5 The proximity of input materials and the concentration of markets in Addis Ababa present an attractive opportunity for ceramic investments

NON-EXHAUSTIVE

Location of resources and major ceramics industries in the Ethiopia



Key insights

- Currently, **50% of the country's ceramics producers are concentrated** around Addis Ababa, creating a dense cluster of manufacturing activity
- A **significant share of future housing** is likely to emerge **around Addis** and its suburbs
- **Locating new ceramic plants near Addis ensures proximity to the primary market and key resources**, optimizing supply chain resilience
- **Additionally, the capital offers a more stable security environment compared to outlying regions**, minimizing risks of disruption

5 Therefore, greenfield investment is likely to be the more practical entry route

Market entry options

PRELIMINARY

 Recommended option for Ethiopia


Option



Description



Key consideration



How to enter

1 Greenfield investment	<ul style="list-style-type: none"> • Build a full plant from scratch (e.g., land, utilities, lines, logistics) 	<ul style="list-style-type: none"> • Enables leapfrogging with the latest technology, like energy-efficient kilns, and high-quality productions • Provides maximum control over layout, and can easily co-locate near quarries/ports/markets 	<ul style="list-style-type: none"> • Engage with the Ethiopian Investment Commission (EIC) for detailed regulatory approvals • Secure quarry rights and establish reliable distribution channels
2 JVs and brownfield expansion	<ul style="list-style-type: none"> • Partner with an existing local player to combine market access, operational know-how, and funding • Joint venture can expand the capacity of the existing players by adding new production lines, upgrading kilns, etc 	<ul style="list-style-type: none"> • De-risks market entry; improves execution challenges utilizing existing player • Can ease sourcing, permitting, and distribution (has lower risk than greenfield with existing permits, workforce, and distribution) • Faster revenue ramp, but capped optimization potential 	<ul style="list-style-type: none"> • Engage with local ceramic manufacturers with existing manufacturing capacity • Target additional conglomerates for strategic partnerships, such as DH Geda Group, Midroc Investment Group, Sunshine Investment • Utilize current permits and rights to fast-track investment impact

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1 Context



Ethiopia's robust economic growth (~7% GDP in 2024) and **construction sector expansion** (~21% of GDP, ~8% annually) **make it an attractive market. Demographic trends** such as a ~2% annual population increase and **rising urbanization** (~5% annually) drive this growth. Ethiopia's market appeal stems from its **growth potential, long-term competitiveness, and governmental backing**

2 Market trends and outlook



Demand for gypsum boards in Ethiopia could grow significantly if lightweight wall systems see **broader adoption in residential and commercial construction**. Under a high-adoption scenario, the market could expand from **USD 28 million in 2023 to approximately USD 217 million by 2031**. In this scenario, the local supply gap could increase from **USD 2.4 million to USD 192 million**, highlighting a potentially attractive investment opportunity.

3 Feasibility in Ethiopia



Ethiopia offers a competitive advantage for scaling domestic gypsum board production through **low material input costs, affordable labour and electricity costs**

Five primary investment risks could strain investment returns: market cyclicalities, demand reliance on full HCB-substitution, FX constraints, energy and infrastructure vulnerabilities, and regulatory/security challenges. These can be **mitigated by cultivating long-term partnerships, product diversification, and engaging local industry advisors/experts**

The potential **localization of natural gas and coal beneficiation** alongside ongoing **economic reforms** could further unlock gypsum board manufacturing (e.g., development of industrial parks)

4 Example project: Economics



An illustrative investment in a **small-scale factory** demonstrates **potential to unlock an NPV of 8.8Mn USD and achieve an IRR of 19%, capturing ~16% of local demand**

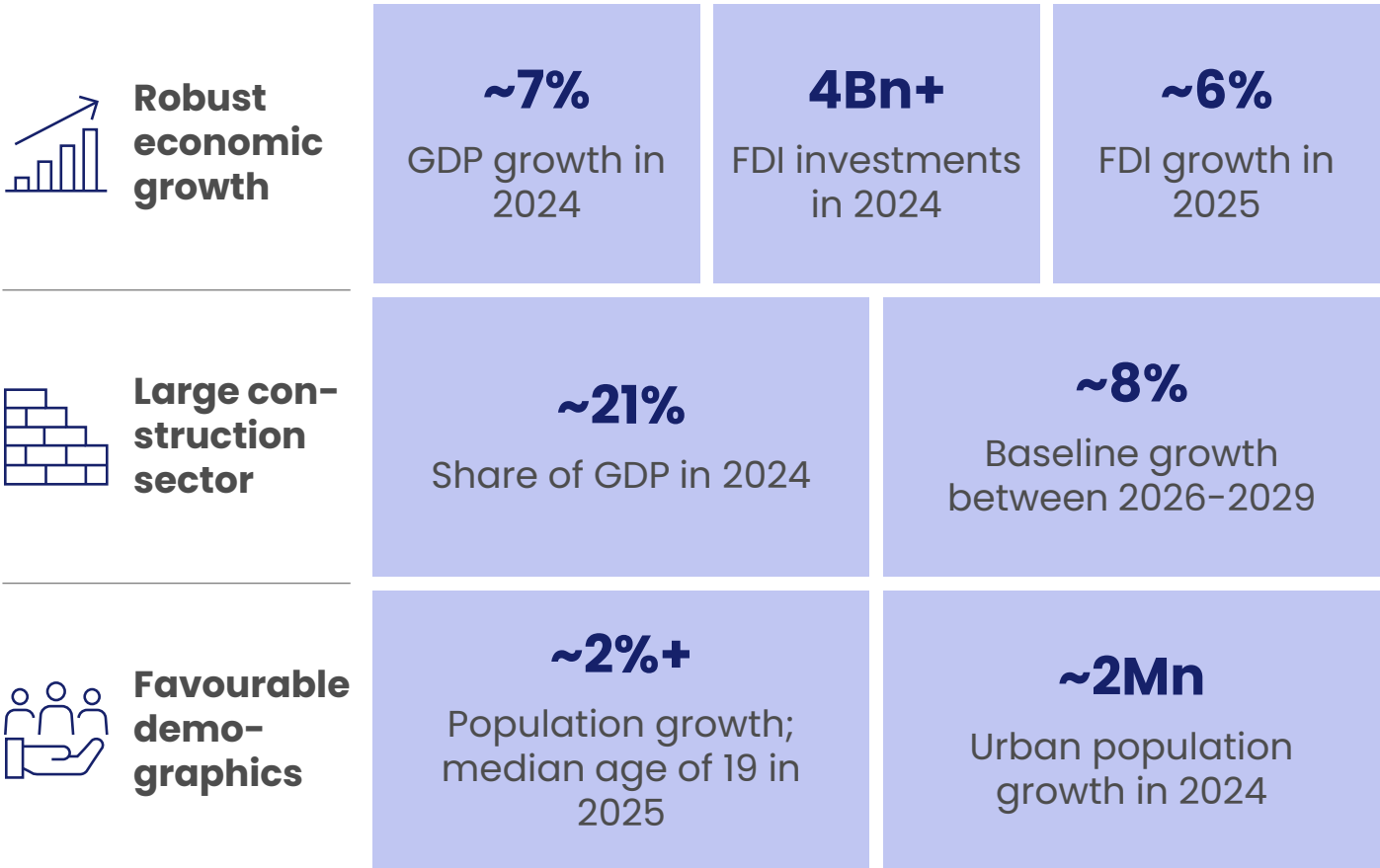
5 Location and entry options




Establishing a gypsum board plant close to Addis Ababa would be favourable due to proximity of input materials and high demand concentrated within the city. Moreover, **greenfield** stands out as the most compelling entry option for new gypsum board investments

1 Ethiopia's investment landscape is strengthened by the localization of input materials


Economic and construction growth, supported by demographic shifts makes Ethiopia an attractive market ...with strong fundamentals for investment




Market opportunity
Demand for gypsum boards could grow significantly as lightweight wall systems gain broader adoption over hollow-concrete blocks in residential and commercial construction projects



Long-term competitiveness
Structural cost advantage over imports due to reliable access to local raw materials and low-cost labour

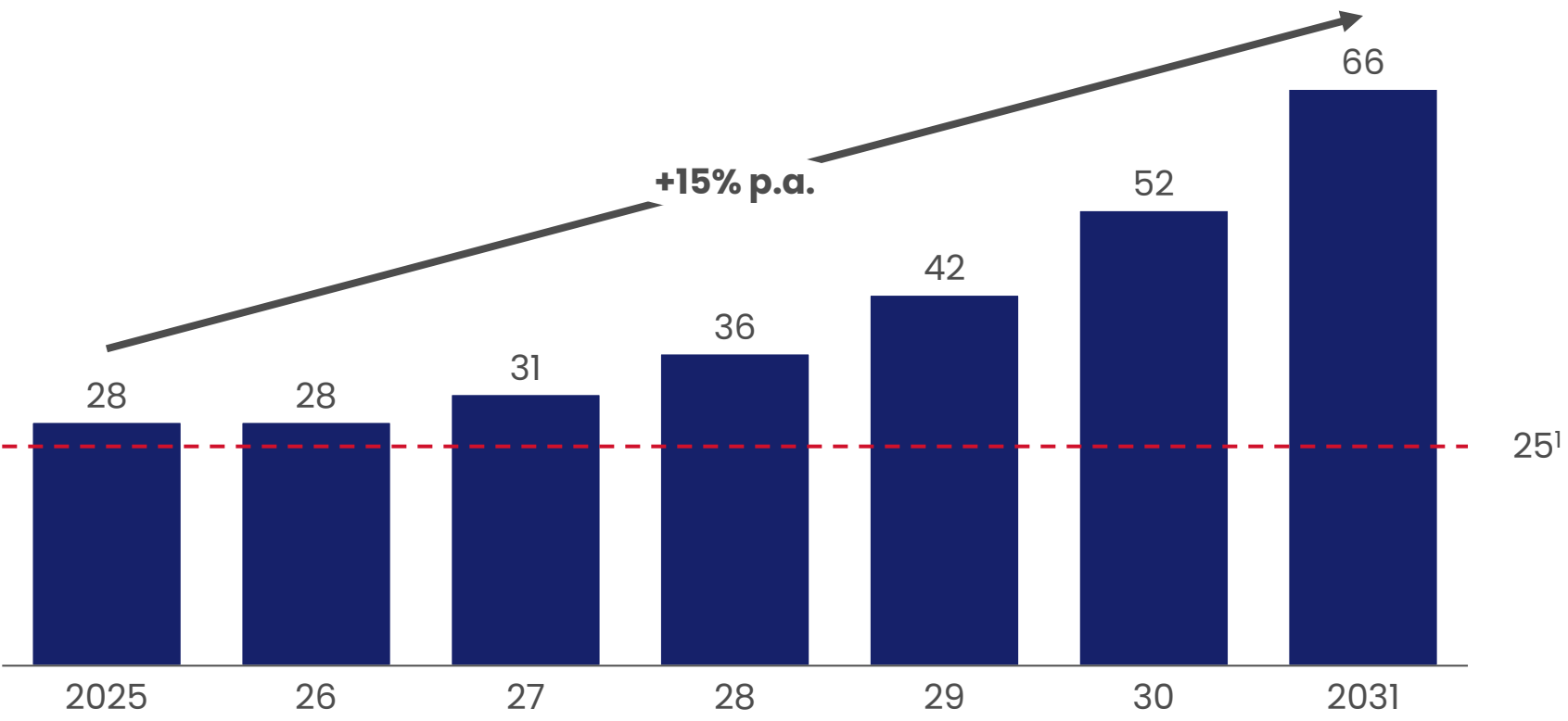


Government support
Strong policy backing for localisation, including import substitution and targeted incentives (e.g., tax holidays, duty

② Gypsum board demand to increase by 15% per year, significantly increasing local supply gap

--- Local supply ■ Baseline demand

Historical and projected gypsum board demand in Ethiopia, Mn USD



Key insights



Ethiopia’s gypsum board market could grow by 15% annually, supported by increasing adoption in construction, including government-led substitution of HCB for interior walls




Demand is expected to exceed current local supply significantly, creating strong headroom for domestic capacity expansion

1. Local supply estimated from local companies incl. GH Industries, with a capacity of 4.2Mn sqm, 80% capacity utilization, and selling at 780 ETB/sqm. Other production is smaller scale and assumed to be 50% of GH’s output given limited data from desktop research

2 Gypsum board outperforms HCB due to cost advantages, strong demand, and high localization potential

Substitution factor

Consideration for investment

 Cost competitiveness	<ul style="list-style-type: none">• Cost advantage unlocks adoption with 18-50% wall cost savings, enabling competitive pricing while preserving margins as scale is achieved• Revenue upside for developers due to higher sellable area per unit (~0.6-1.6% gain vs. HCB), directly improving developer revenues• Lower logistics and handling costs due to superior area-to-weight ratio, reducing transport intensity and project execution costs
 Strong expected demand	<ul style="list-style-type: none">• Robust demand pipeline supported by increasing adoption of gypsum over HCB, driven by faster build times, improved worker safety, and reduced finishing requirements• Additional demand visibility from large-scale construction programmes, providing predictable, long-term offtake visibility
 Localization potential	<ul style="list-style-type: none">• Compelling local manufacturing opportunity leveraging abundant gypsum reserves and downstream value addition potential• Strong ESG positioning (~88% lower emissions vs. HCB), increasingly relevant for impact-oriented capital

3 Ethiopia has strong structural advantages to scale up domestic production of gypsum boards

PRELIMINARY

Dimensions

Key considerations for Ethiopia

 **Input materials**

- **Gypsum reserves** totalling ~**57Mn tonnes** play a crucial role in sustaining local gypsum board production
- **Present and growing paper industry** supports future localization of gypsum board paper liners

 **Labour**













- **Competitive labour costs**, a workforce exceeding **56 million**, and a **median age of 19** provide a strong structural advantage for manufacturing and other labour-intensive industries
- **Improving workforce quality**, with youth literacy reaching ~85% (2022) and a rapid expansion in educational capacity – universities surpassing 50 by 2025 and TVET institutions exceeding 1,600

 **Competitive electric power**

- **Access to affordable, domestically generated renewable power** lowers operating costs and FX exposure
- Several **investments are underway to diversify thermal energy sources**, decreasing dependence on expensive fuels for calcination

③ Six key investment risks can be managed through targeted planning and mitigation

PRELIMINARY

Risk category	Description	Impact	Mitigation strategies
Market dynamics 	<ul style="list-style-type: none"> The construction market is typically cyclical, which will be dependent on the economic situation HCB dominates the current market, with some low-quality gypsum blocks in the market 		<ul style="list-style-type: none"> Secure long-term contracts with top developers to deliver consistent volumes of gypsum boards Drive adoption through early anchor projects to demonstrate the benefits of gypsum board and reduce reliance on HCB over time
Demand outlook 	<ul style="list-style-type: none"> Early market uptake will depend on the pace of adoption across large-scale residential and commercial construction projects Limited familiarity and mixed perceptions of gypsum boards may slow early adoption 		<ul style="list-style-type: none"> Secure early agreements/anchor projects across leading residential, commercial and institutional developments to validate demand and demonstrate product performance in live projects Push market awareness campaigns to build confidence in product performance, backed by participation in certification programmes Roll out technical vocational training to strengthen workforce capabilities
Imported input dependency 	<ul style="list-style-type: none"> Dependence on imported paper liners and additives risks FX, freight, and supply disruptions, though additives¹ (e.g., accelerators, foaming agents, water repellents) have a small share in total input costs 		<ul style="list-style-type: none"> Establish local supplier partnerships with paper companies to accelerate the localization of paper liners Assess the feasibility of producing additives locally over time to reduce import dependence further
Financial challenges 	<ul style="list-style-type: none"> High capex intensity and FX exposure during plant import, commissioning², and yield ramp-up challenges High interest rates and constrained long-term financing 		<ul style="list-style-type: none"> Bring an experienced manufacturing team and keep them on-site through stabilized yield KPIs Negotiate favourable credit terms on both the suppliers' and developers' sides
Energy & infrastructure platform 	<ul style="list-style-type: none"> Grid instability due to poor quality, voltage fluctuations & maintenance issues Fuel supply variability due to high and volatile costs of diesel 		<ul style="list-style-type: none"> Site near stable industrial corridors/Industrial parks with reliable energy and supply chains Set up long-term fuel/energy contracts
Security & regulatory environment 	<ul style="list-style-type: none"> Logistics disruptions in some regions due to conflict Slow licensing and land approval processes leading to delays in market entry 		<ul style="list-style-type: none"> Locate the plant near the capital to minimize security risks and ensure safe operations Engage early with the Ethiopian Investment Commission to secure the investment permit and sequence downstream approvals

1. Typical chemicals used in production of relevant additives include potassium sulphates for accelerators, silicone emulsions for water repellents, sulfonates for foaming agents, glass fibres etc.
 2. Commissioning: transitioning plant from construction to stable commercial production

3 The Government of Ethiopia is also implementing ongoing economic reforms to unlock the manufacturing sector

PRELIMINARY

Economic reforms

■ Already executed ■ Ongoing implementation

 Foreign exchange floatation	Banks and licensed offices are allowed to trade forex freely after the ETB was floated in mid-2024 Exporters are allowed to keep 100% of their foreign-currency earnings , and foreign investors can repatriate 100% of capital
 Import/export reforms and initiatives	ECMS¹ automation replaced manual imports/exports , reducing import release time from 44 to 12 days Duty-free, quota-free access to the EU markets through EBA (Everything but Arms)
 Industrial parks development	~13 sector-specific industrial parks have been developed across different regions in the country, led by Industrial Parks Development Corporation (IPDC)
 'Ethiopia Tamrit' initiative	The government has initiated a national programme to strengthen the manufacturing sector by addressing key bottlenecks, encouraging import substitution, and boosting competitiveness through targeted initiatives, including improvements in infrastructure and access to financing

1. ECMS - Electronic Customs Management System

4 Example project: Gypsum boards can unlock a potential NPV of 8.8Mn USD and achieve an IRR of 19%, driven by significant demand

PRELIMINARY

Detailed next

Business case outputs		Base case scenario
A Capacity	Total capacity, units	10
	Investment	CAPEX, total \$M
B Revenue	Annual revenue, avg. \$M/yr.	33.4
C OPEX	Input raw materials, avg. \$M/year	15.8
	Processing cost, avg. \$M/yr.	11.7
Project economics	NPV (up to 2038, 10% discount rate), \$M	8.8
	IRR (fixed prices), %	19
	Operating margin, %	18
	Payback, yrs.	4

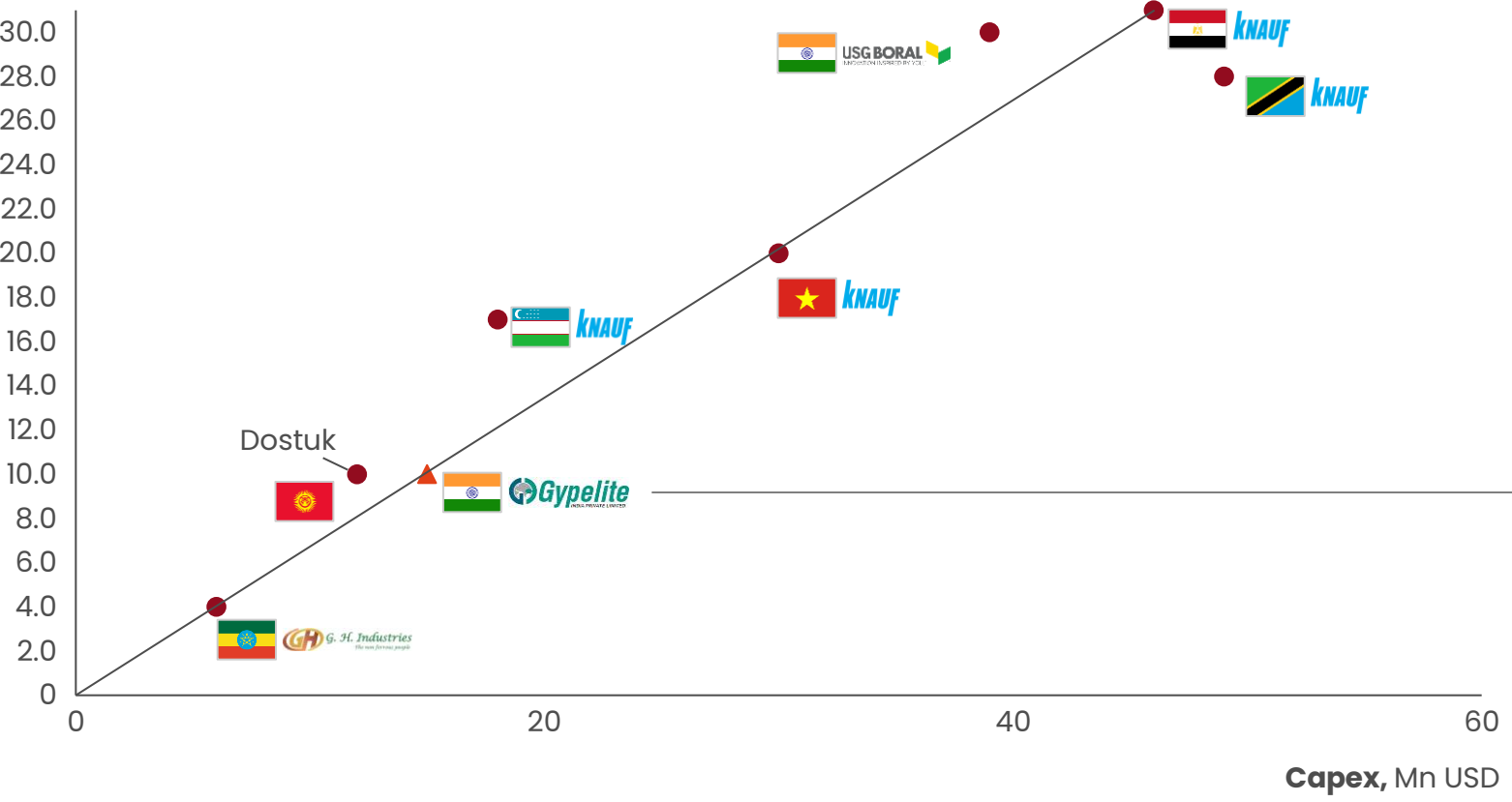
Highlights

- **Gypsum board business case was modelled using global benchmarks as well as local input prices**, yielding a base-case NPV of ~8.8Mn USD and an IRR of ~19%, with a primary focus on serving domestic demand
- **Assumed production capacity is approximately 10 Mn sqm per year**, in line with small-scale facilities in comparable global markets (e.g., India)
- **Development is expected to take approximately 18 months**, although timelines in Ethiopia may be extended by factors such as import delays and permitting processes
- Cost structure benefits from **low-cost, locally available gypsum rock and imported elements (additives, paper liners)**, which account for 60% of OPEX
- **The remaining 40% of OPEX is driven by processing costs, primarily utilities** such as electricity for calcination

4 A. In Ethiopia, small-scale board manufacturers would balance investment risk and output to meet demand

Investment needed per production capacity, Mn USD

Output, Mn sqm



Example project profile

Example investment with **capex of ~15.8Mn USD¹** to support **~10Mn sqm annual capacity**, with modular expansion potential as demand grows

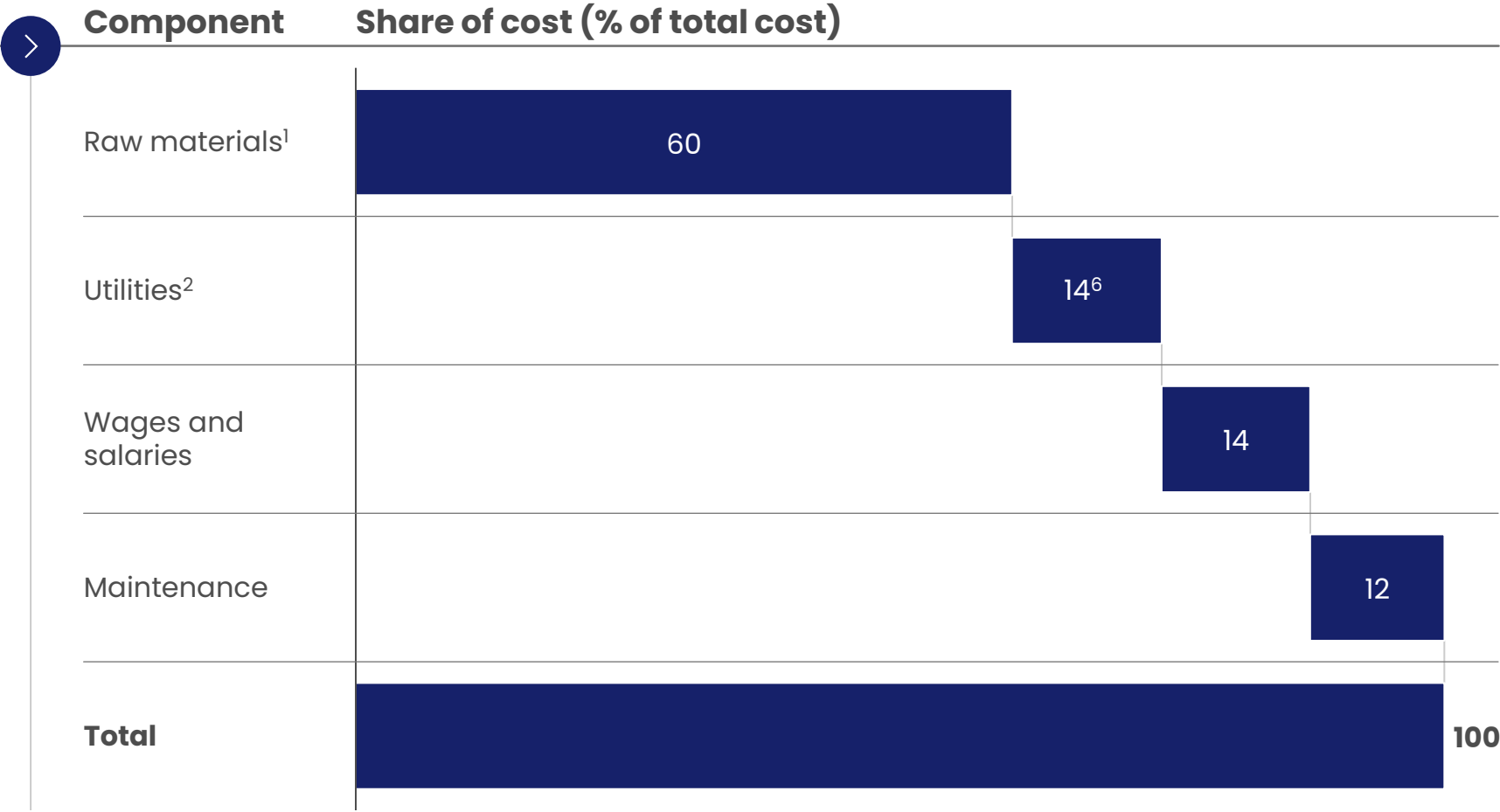
This investment could be positioned as a **small-scale plant targeting HCB substitution** rather than import substitution

1. Plotted capex of 15Mn USD adjusted with a cost premium of 5% reflecting potential supply chain inefficiencies in setting up the plant

4 C. Operating costs are dominated by raw materials, accounting for ~60% of total costs

Key assumptions

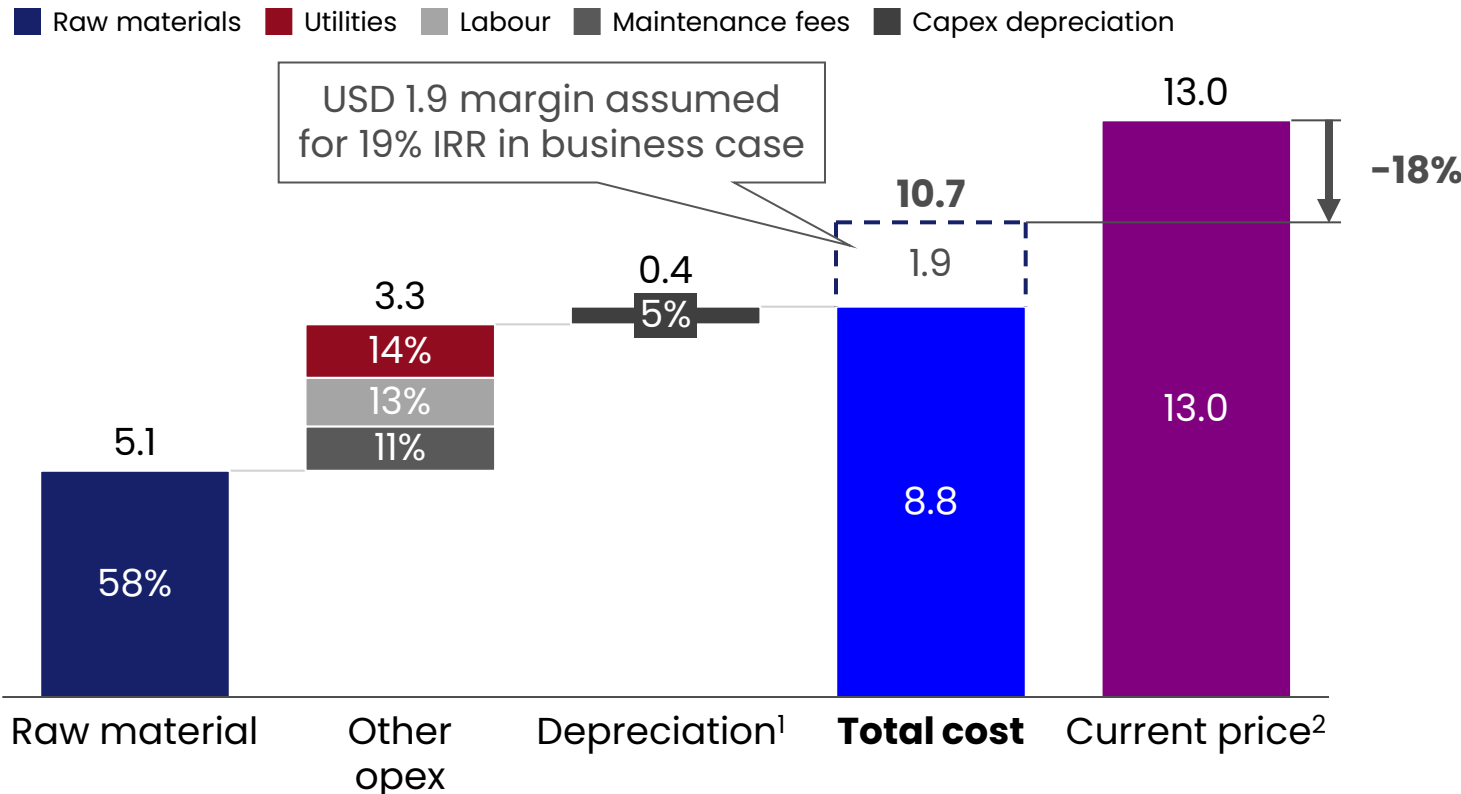
- **The plant is strategically located near key quarries and Addis Ababa**, ensuring low & predictable costs for raw materials and proximity to market
- **An electricity-based thermal system** supports calcination, with handling/storage and maintenance costs embedded in OPEX
- **The facility employs a skilled local workforce**, requiring limited additional training, while most upskilling is administered on the job



1. Raw materials include inputs for manufacturing, such as gypsum rock, silica sand and limestone. It also has some small shares of imported inputs, like additives and paper liners
 2. Including energy costs as electricity and fuel is needed to run machines and the calcination process

4 C. Overall, the new plant could undercut current domestic prices by ~18%, driven by economies of scale

Gypsum board production unit cost estimation, USD/board



1. Depreciation is applied for 10 years for this analysis, but could be lower if used longer-term depreciation
 2. Average purchase price of local gypsum board is 2010 Birr/board with an average area of 2.5 sqm; conversion rate of 155.05 ETB applied



Key insights

Projected price could be ~18% cheaper than current domestic market prices, driven primarily by economies of scale that improve cost efficiency and support stronger margins

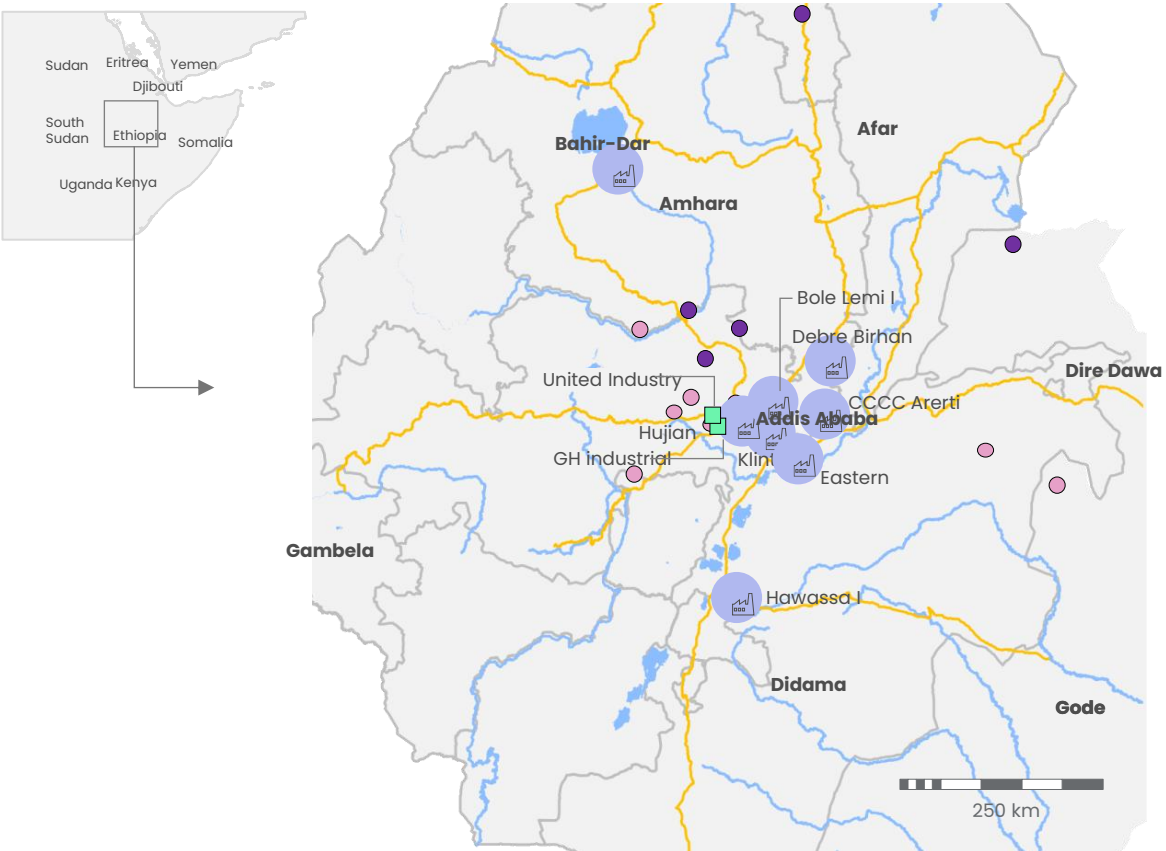
Raw materials drive most of the costs, accounting for ~60% of the total unit costs

Scale-driven efficiencies can further improve economics, including optimization of energy and maintenance costs

5 The proximity of input materials and industrial parks in Addis Ababa present an attractive opportunity for gypsum boards investments

NON-EXHAUSTIVE

Location of resources and major gypsum board manufacturers in Ethiopia



Key insights

- Existing gypsum board manufacturers are located within Addis Ababa, given proximity to raw materials and industrial parks
- A significant share of future housing and construction demand is likely to emerge around Addis Ababa and its suburbs
- Locating gypsum board plants near industrial parks in Addis Ababa enhances access to shared utilities, the main market, and raw material sources
- Additionally, the capital offers a more stable security environment compared to outlying regions, minimizing risks of disruption

5 Therefore, greenfield investments stand out as the most compelling entry option for new gypsum boards investments

Market entry options

PRELIMINARY

 Recommended option for Ethiopia


Option

Greenfield investment



Description

- **Build a full plant from scratch** (e.g., land, utilities, lines, logistics)



Key consideration

- **Maximum quality control** on efficient production lines and product specs (e.g., thickness, paper bonding)
- **Co-location flexibility** around quarries/industrial parks/markets
- **More competitive pricing** can be supported by efficient processes



How to enter

- **Engage with the Ethiopian Investment Commission (EIC)** for detailed regulatory approvals
- **Secure long-term gypsum rock supply**, either through own quarry rights or contracted supply agreements with licensed miner
- **Target additional conglomerates for strategic partnerships**, such as DH Geda Group, Midroc Investment Group, Sunshine Investment

JVs and brownfield expansion

- **Partner with an existing local player** to combine market access and funding
- **This joint venture can expand the capacity of the existing players** by adding new production lines, upgrading calciners, etc

- **Faster process stabilization** through existing know-how in slurry control, paper bonding, setting and drying
- **Debottlenecking opportunities** in calcination and board forming
- **Legacy constraints** with limited throughput, quality and uncompetitive prices

- **Engage with local gypsum board manufacturers** with existing manufacturing capacity
- **Utilize current permits and rights** to fast-track investment impact
- **Target additional conglomerates for strategic partnerships**, such as DH Geda Group, Midroc Investment Group, Sunshine Investment

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Key findings

1 Context



Ethiopia's robust economic growth (~7% GDP in 2024) and **construction sector expansion** (~21% of GDP, ~8% annually) **make it an attractive market**. **Demographic trends** such as a ~2% annual population increase and **rising urbanization** (~5% annually) drive this growth. Ethiopia's market appeal stems from its **growth potential, long-term competitiveness, and governmental backing**

2 Market trends and outlook



Demand for sanitaryware ceramics in Ethiopia is expected to **grow significantly**, supported by rising housing construction, urbanisation, and increasing standards for sanitation facilities. Under a **high-growth scenario**, the market could expand from **USD 18 million in 2023 to approximately USD 77 million by 2031**. In the same scenario, the **supply gap could increase from USD 17 million to USD 75 million**, creating a sizeable potential investment opportunity

3 Feasibility in Ethiopia and Key risks/mitigations



Ethiopia offers a competitive advantage for scaling domestic sanitaryware production through **low material input costs and affordable labour**

Five primary investment risks could strain investment returns: market cyclicality, FX constraints, energy and infrastructure vulnerabilities, and regulatory/security challenges. These can be **mitigated by cultivating long-term partnerships, product diversification, and engaging local industry advisors/experts**

The potential **localization of natural gas/coal beneficiation** and ongoing **economic reforms** could further unlock sanitaryware manufacturing (e.g., development of industrial parks)

4 Example project: Economics



An illustrative investment in a **medium-scale factory** demonstrates **potential to unlock an NPV of 6.3Mn USD and achieve an IRR of 20%, capturing ~40% of local demand**


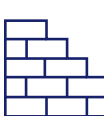

5 Location and entry options




Establishing a sanitaryware plant close to Addis Ababa would be favourable due to proximity of input materials and high demand concentrated within the city. Moreover, **greenfield** stands out as the most compelling entry option for new sanitaryware ceramics investments


1 Ethiopia's investment landscape is strengthened by the localization of input materials

Economic and construction growth, supported by demographic shifts makes Ethiopia an attractive market ...with strong fundamentals for investment


 <p>Robust economic growth</p>	<p>~7% GDP growth in 2024</p>	<p>4Bn+ FDI investments in 2024</p>	<p>~6% FDI growth in 2025</p>
 <p>Large construction sector</p>	<p>~21% Share of GDP in 2024</p>		<p>~8% Baseline growth between 2026-2029</p>
 <p>Favourable demographics</p>	<p>~2%+ Population growth; median age of 19 in 2025</p>	<p>~2Mn Urban population growth in 2024</p>	



Market opportunity
Predictable demand for sanitaryware ceramics is expected to significantly increase, driven by rapid urbanization



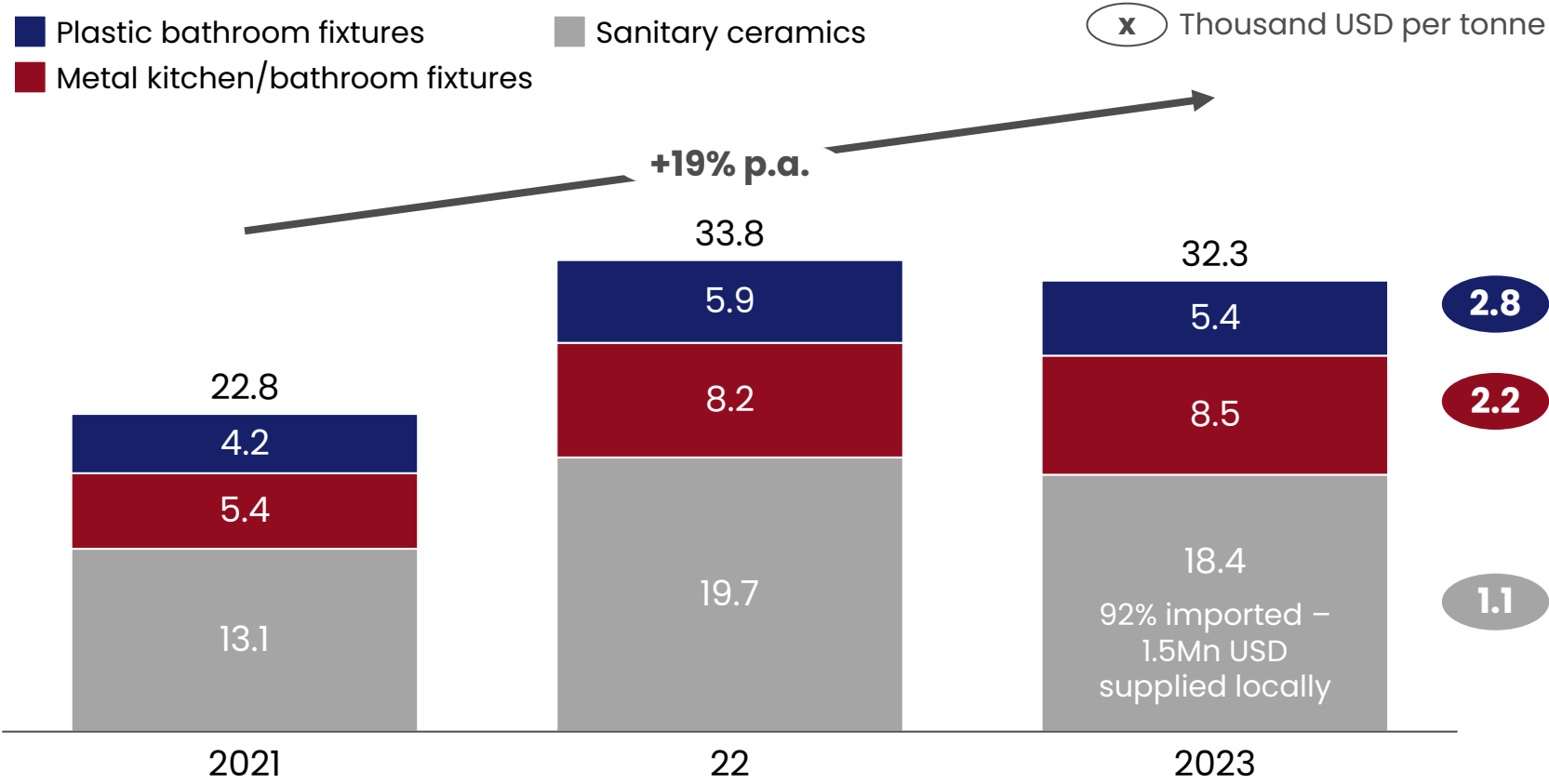
Long-term competitiveness
Structural cost advantage over imports due to reliable access to local raw materials and low-cost labour



Government support
Strong policy backing for localisation, including import substitution and targeted incentives (e.g., tax holidays, duty exemptions)

2 Demand: Ethiopia's sanitaryware market grew at 19% annually between 2021-2023, reflecting strong underlying demand

Historical sanitaryware demand in Ethiopia, Mn USD¹



Key insights

Market growth is strong, reaching a peak of 33.8Mn USD in 2022, with imports accounting for 95%

Ceramics sanitaryware account for about half of total spend, driving the decline in 2023

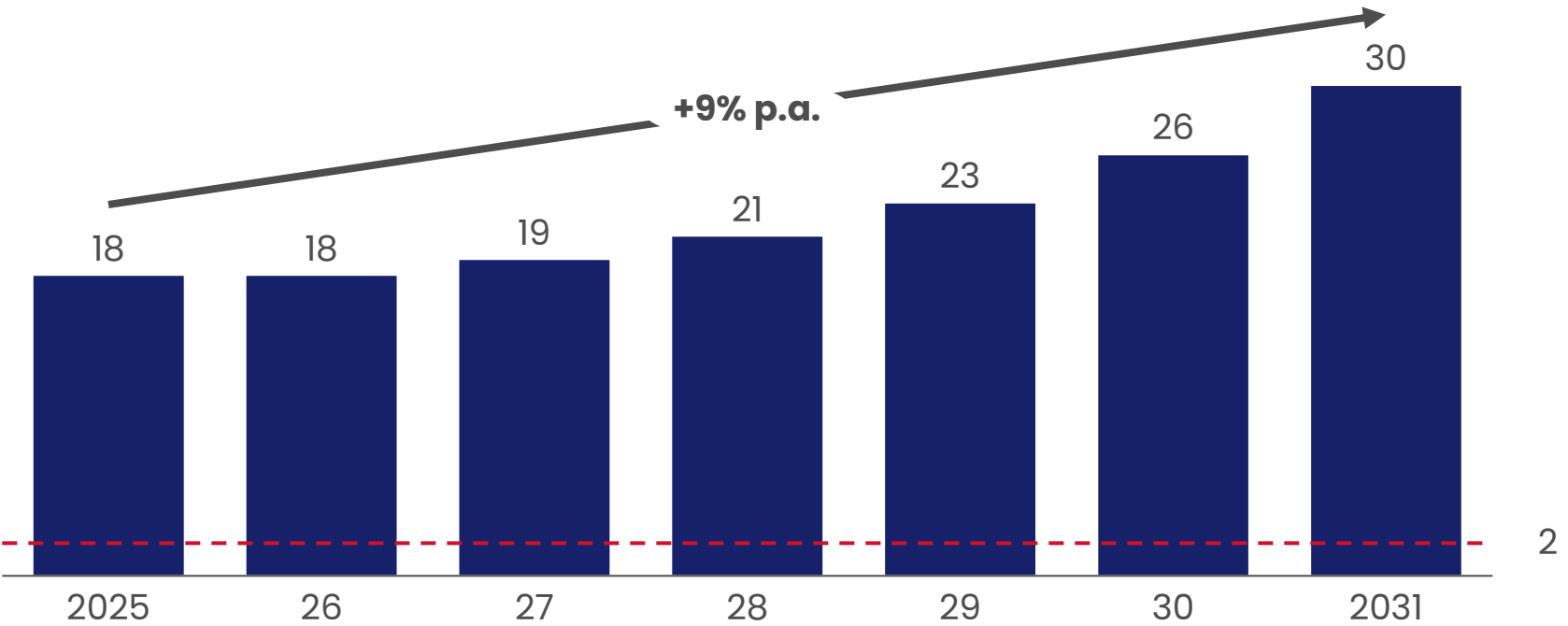
This indicates a **standardized, mass-market for ceramics fixtures**, reflecting their low value per tonne (~1.1k USD/t) and suitability for large-scale delivery housing

1. Import data from UN Comtrade while local supply value is triangulated using a weighted price of ~USD 1700 per tonne of sanitaryware based on Tabor Ceramics prices

② Supply: Local supply meets less than 10% of current demand, offering significant headroom for new investment

--- Local supply ■ Baseline demand

Historical and projected sanitaryware ceramic demand in Ethiopia, Mn USD¹



Source: Expert inputs, Trade map, team analysis

Key insights

Ethiopia's sanitaryware ceramics market could grow by 9% from 2025 through 2030, largely driven by growth in urban residential construction

With local production currently meeting less than 10% of demand, there is significant headroom for domestic capacity expansion and new investment

3 Ethiopia is already competitive in local sanitaryware production, with further upside from closing energy and infrastructural gaps

Competitiveness dimension











What it takes to win

Ethiopia's positioning

	Labour	Access to well trained, low-cost labour , in addition to greater automation of production lines	Low labour costs with a large, young workforce and upskilling underway
	Thermal energy	Access to cost-competitive energy and high-efficiency kilns to reduce utilities costs and ensure stable production runs	Several investments underway to diversify thermal energy sources, decreasing dependence on imported coal
	Inputs availability	Reliable access to raw materials (e.g., kaolin) and critical inputs (e.g., moulds) across the value chain to minimize import dependency and input volatility	Sizable resources with beneficiation capabilities (kaolin ~20Mt, feldspar ~500kt). Mostly imported consumables
	Industrial ecosystem and infrastructure	Well-functioning industrial clusters with integrated supply chains, shared utilities and logistics efficiency	~13 active industrial parks though no dedicated ceramics cluster yet
	Market demand depth	Large, growing housing and commercial build market with a tiered product range and dependable distribution	Strong underlying demand from housing, commercial and institutional construction
	Policy tailwinds	Predictable incentives (e.g., duty/tax relief on heavy capex, targeted subsidies) paired with strong standards enforcement	Strong policy commitment to import substitution and local manufacturing

3 Five key investment risks can be managed through targeted planning and mitigation

PRELIMINARY

Risk category	Description	Impact	Mitigation strategies
Market dynamics 	<ul style="list-style-type: none"> The construction market is cyclical and linked to overall economic conditions Low-cost imports (e.g., from China and India) may constrain local production competitiveness 		<ul style="list-style-type: none"> Secure long-term contracts with top developers to deliver consistent volumes of sanitaryware ceramics Source inputs locally, optimize cost base (focus on operating expenditure) to deliver competitive prices
Demand outlook 	<ul style="list-style-type: none"> Demand growth is linked to the pace of residential and commercial construction activity, which may take time to fully materialize 		<ul style="list-style-type: none"> Design the plant for flexibility to produce diverse sanitaryware SKUs, catering to the broader market
Financial challenges 	<ul style="list-style-type: none"> High capex intensity and FX exposure during plant import, commissioning¹, and yield ramp-up challenges High interest rates and constrained long-term financing 		<ul style="list-style-type: none"> Deploy an experienced OEM commissioning team and keep them on-site through stabilized yield KPIs Negotiate favourable credit terms on both the suppliers' and customers' sides
Energy & infrastructure platform 	<ul style="list-style-type: none"> Grid instability due to poor quality, voltage fluctuations & maintenance issues Fuel supply variability due to high and volatile costs of diesel 		<ul style="list-style-type: none"> Site near stable industrial corridors/Industrial parks with reliable energy and supply chains Set up long-term fuel/energy contracts
Security & regulatory environment 	<ul style="list-style-type: none"> Logistics disruptions in some regions due to conflict Slow licensing and land approval processes leading to delays in market entry 		<ul style="list-style-type: none"> Locate the plant near the capital to minimize security risks and ensure safe operations Engage early with the Ethiopian Investment Commission to secure the investment permit and sequence downstream approvals

1. Commissioning: transitioning plant from construction to stable commercial production

3 The Government of Ethiopia is also implementing ongoing economic reforms to unlock the manufacturing sector

Economic reforms

■ Already executed ■ Ongoing implementation

	Foreign exchange floatation	Banks and licensed offices are allowed to trade forex freely after the ETB was floated in mid-2024 Exporters are allowed to keep 100% of their foreign-currency earnings , and foreign investors can repatriate 100% of capital
	Import/export reforms and initiatives	ECMS¹ automation replaced manual imports/exports , reducing import release time from 44 to 12 days Duty-free, quota-free access to the EU markets through EBA (Everything but Arms)
	Industrial parks development	~13 sector-specific industrial parks have been developed across different regions in the country, led by Industrial Parks Development Corporation (IPDC) Development of ceramic park ; Debre Birhan Industrial Park includes ceramics as one of its priority sectors
	'Ethiopia Tamrit' initiative	The government has initiated a national programme to strengthen the manufacturing sector by addressing key bottlenecks, encouraging import substitution, and boosting competitiveness through targeted initiatives, including improvements in infrastructure and access to financing

1. ECMS – Electronic Customs Management System

4 Example project: Sanitaryware can unlock a potential NPV of 6.3Mn USD and achieve an IRR of 20%, driven by significant demand

PRELIMINARY

 Detailed next

Business case outputs		Base case scenario
A Capacity	Total capacity, Mn pieces/yr	0.7
	Investment	CAPEX, total Mn USD
B Revenue	Annual revenue, avg. Mn USD/yr.	24.1
C OPEX	Input raw materials, avg. Mn USD/year	2.3
	Processing cost, avg. Mn USD/yr.	17.9
Project economics	NPV (up to 2038, 10% discount rate), Mn USD	6.3
	IRR (fixed prices), %	20
	Operating margin ¹ , %	17
	Payback, yrs.	3

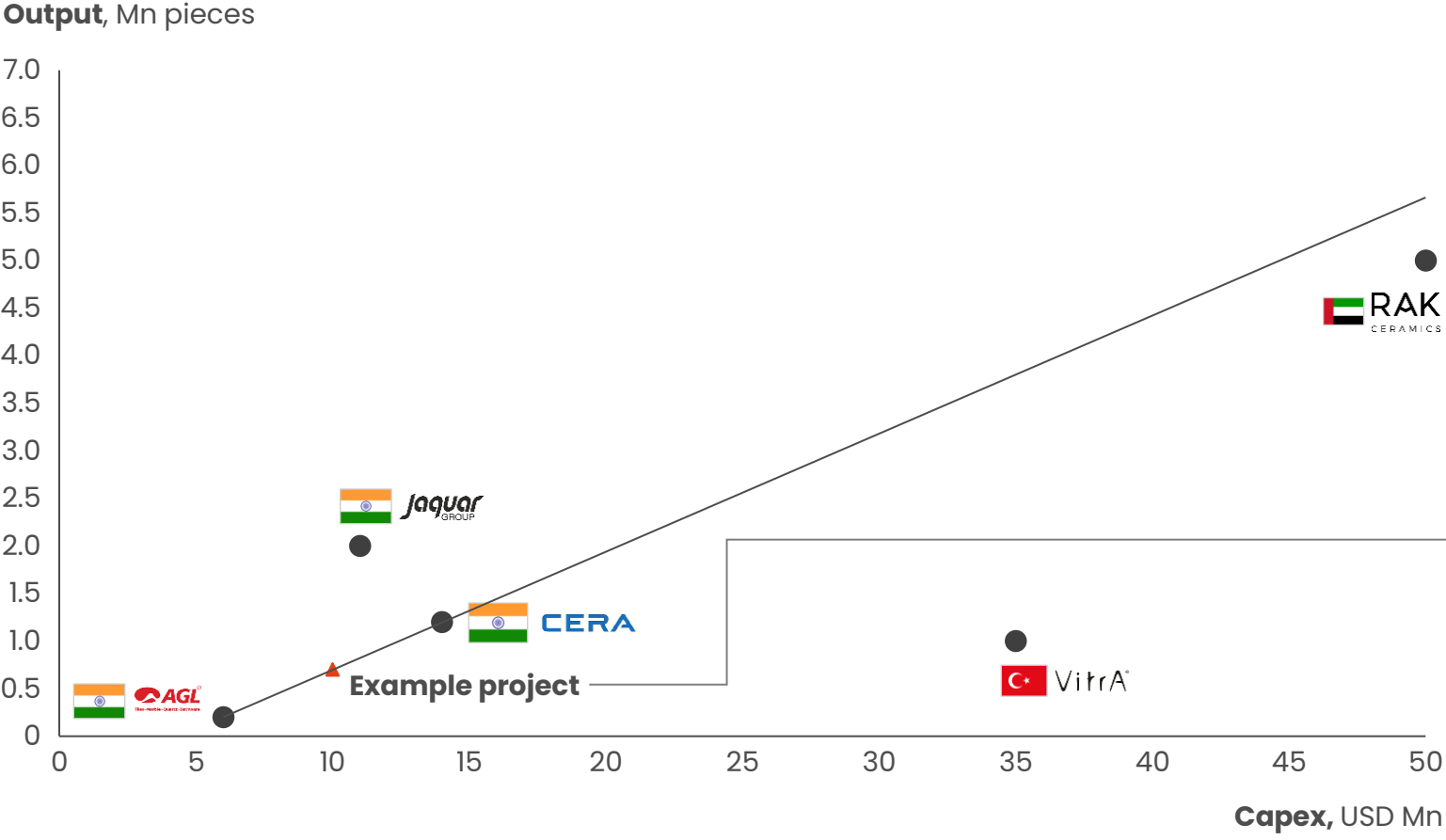
Highlights

- **Sanitaryware ceramics business case was modelled using global benchmarks as well as local input prices**, with the base case assumptions having an NPV of 6.3Mn USD and an IRR of 20%, primarily targeting local markets
- **Assumed production capacity is approximately 0.7Mn pieces per year** (18k tonnes p.a.), in line with medium-scale facilities in comparable global markets (e.g., India)
- **Development is expected to take approximately 18 months**, although timelines in Ethiopia may extend due to external factors such as import delays and approval processes
- **The opportunity relies on low-cost, locally available raw materials, which account for 11% of OPEX** (clay, limestone, silica, kaolin, and feldspar)
- **The remaining 89% of OPEX relates to processing costs, primarily driven by the energy-intensive kilning process**, where temperatures reach up to 1,300°C to enable material transformation

1. Global EBITDA margin benchmarks range from 15-20%

4 A. In Ethiopia, medium-scale manufacturers would balance investment risk and output to meet demand

Investment needed per production capacity, Mn USD



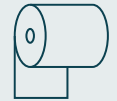










Example project profile

- Example investment with a **capex of ~10.5Mn USD¹** to **support 0.7Mn pieces annual capacity**, with modular expansion potential as demand grows
- This investment could be focused on **one to a few sanitaryware ceramic lines** focused on core SKUs with select premium variants

1. Plotted capex of 10Mn USD adjusted with a cost premium of 5% reflecting potential supply chain inefficiencies in setting up the plant

4 A. The housing programme provides high standardization linked to efficient production, with an upside for diverse SKUs

Relevant for housing project

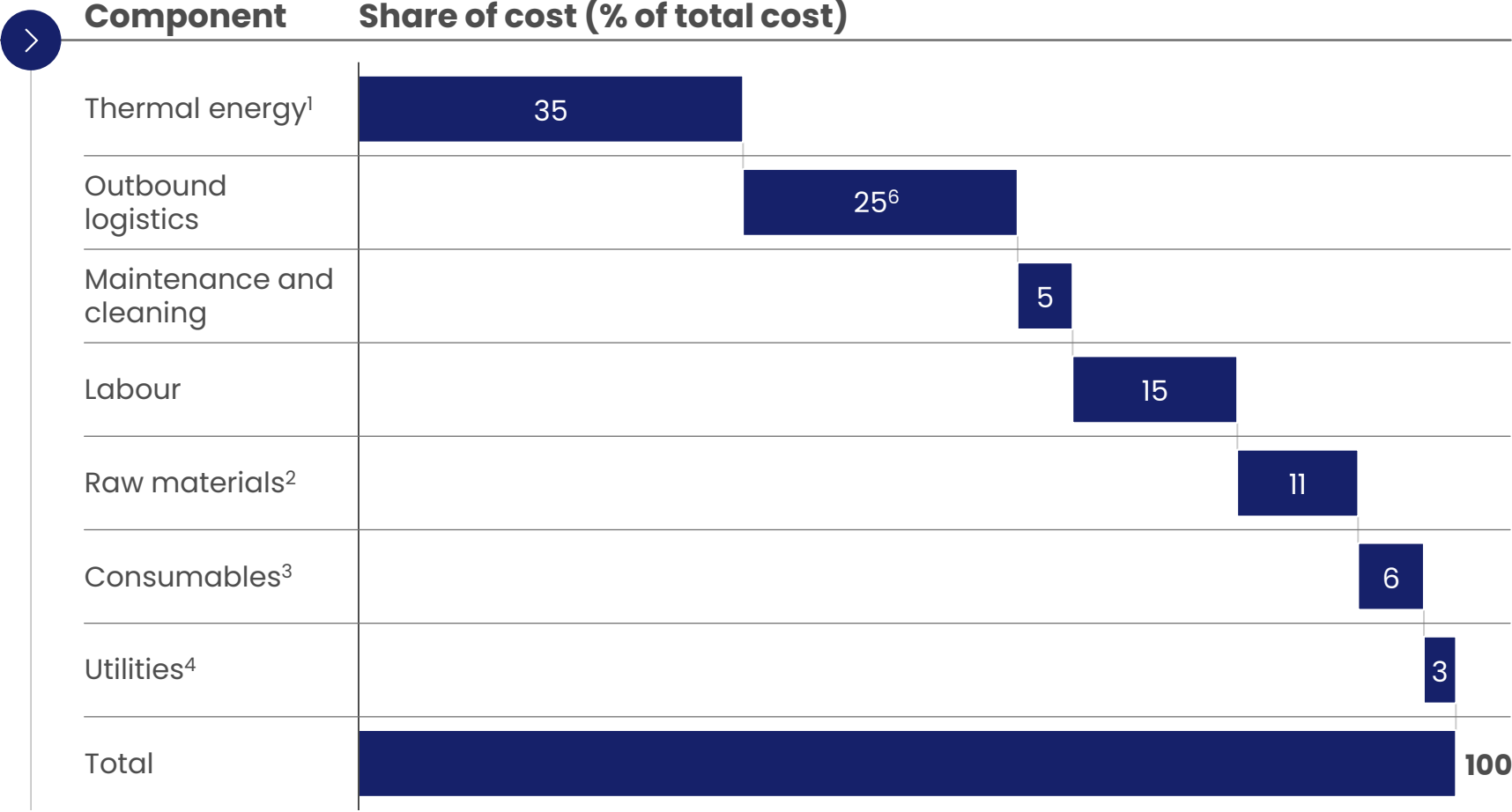
SKU	Wash closet	Sink	Key takeaways
			
	<p>Standardizable elements</p>	<p>Standardizable elements</p>	<p>Standardizing interfaces (outlet size, tap-hole count) reduces installation variation, spare parts complexity, and maintenance costs</p> <p>Major savings arise from minimizing SKUs and adopting water-saving defaults (dual-flush toilets, low-flow taps) to lower resident operating costs</p> <p>Final SKU decisions depend on finish expectations, accessibility concerns (e.g., squat pans) and typology fit</p>
Affordable	<p>Squat pan</p>  <p>Outlet size: DN100-110 mm</p>	<p>Wall-hung basin</p> <p>No pedestal</p> 	<p>↑</p>
Premium	<p>Floor mounted vitreous china¹</p>  <p>Outlet size: 365 W x 650 L x 790 H mm</p> <p>Dual flush, 3/6L</p> <p>Wall/floor trap outlet</p>	<p>Half pedestal</p> 	
	<p>Wall-hung vitreous china</p>  <p>Concealed cistern; sometimes with advanced features (e.g., rimless, soft close)</p>	<p>Full pedestal</p>  <p>1 tap hole and overflow</p> <p>~Flow rate: ≤1.5 gpm / ~5.7 L/min</p> <p>Outlet size: ~500-550 mm width</p>	<p>↓</p>
		<p>Countertop basin</p> 	
		<p>Undermount basin</p> 	

1. Close coupled/concealed cistern

4 C. Operating cost is highly driven by thermal energy and logistics costs, which contribute nearly half of the costs

Key assumptions

- **The plant is strategically located near key quarries and Addis Ababa**, ensuring low & reliable costs for clay, limestone, silica and access to market
- **A coal-based thermal system runs with a secured fuel supply**, with handling/storage and emissions/maintenance costs embedded in OPEX
- **The facility employs a local workforce**, requiring limited basic training, while targeted upskilling programmes address higher-skilled roles
- **Operating model reflects local utilities' reliability constraints**, as power outages and backup requirements can increase downtime, restart losses, and materially raise unit production costs



1. Heat is needed for firing ceramics, which is currently mostly coal-based in Ethiopia. Thermal energy costs could dramatically decrease in Ethiopia due to the recently started natural gas production
 2. Raw materials include inputs for manufacturing, such as clay, feldspar, silicon, etc. It also has some small shares of imported inputs, like glaze
 3. Includes Plaster of Paris (mould), cardboard costs and other general supplies (e.g., gloves)
 4. Including telephone, water and electricity charges

4 C. Ethiopia is competitive in key areas that drive 60–70% of the clean sheet cost of sanitaryware

Breakdown of cost components of sanitaryware, %



Comparative analysis



	Item	India	China	Ethiopia
Labour	Wages, USD/hour ¹	2	8	0.3
	Natural gas, USD/kWh	0.05	0.05	N/A <i>LNG in development</i>
Energy	Coal, USD/tonne	110	100	140 <i>Imported high calorific coal</i>
	Electricity, USD/kWh	0.1	0.1	0.04
Raw materials	Clay, USD/tonne	40	60	60
	Silica, USD/tonne	27	30	30
	Feldspar, USD/tonne	120	180	110
	Glaze ² , USD/tonne	1600	700	1700
	Total, USD/tonne	1787	970	1900

Key insights

Ethiopia is **competitive on key costs** creating a strong case for import substitution and localization

Localization at scale hinges on a **bankable, high-reliability kiln thermal solution** like natural gas

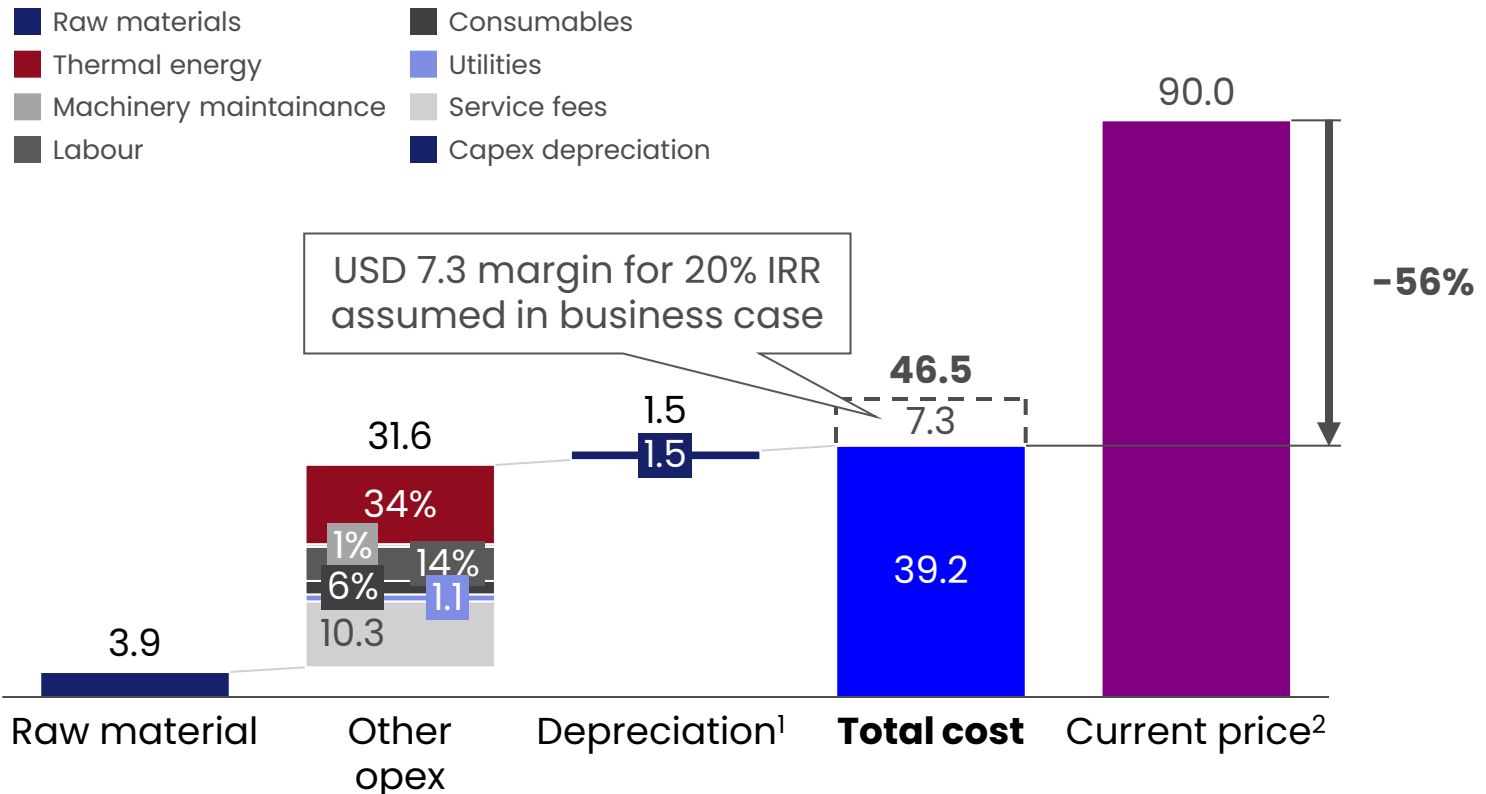
Workforce capability in ceramics engineering will be an enabler to achieve consistent quality yields at scale

While raw materials are relatively cheaper, competitiveness depends on quality, and ability to supply large volumes reliably

1. Based on typical wages for manufacturing jobs
 2. Zirconium silicate used as a proxy; Both India and Ethiopia import from USA and China

4 C. Overall, local production can achieve price superiority compared to imported sanitaryware, commanding 56% lower costs

Sanitaryware ceramics production unit cost estimation, USD/piece



1. Depreciation is applied for 10 years for this analysis, but could be lower if used longer-term depreciation
 2. Average purchase price of imported sanitaryware ceramics reflecting full landing cost (customs tax of 30%, freight and seller margins): mostly ranging between 15-20k ETB/piece on 2Merkato/Shaleqa, converted using 155ETB/USD FX rate and assuming ~25kg per piece



Key insights

Local production is ~56% cheaper than current import prices

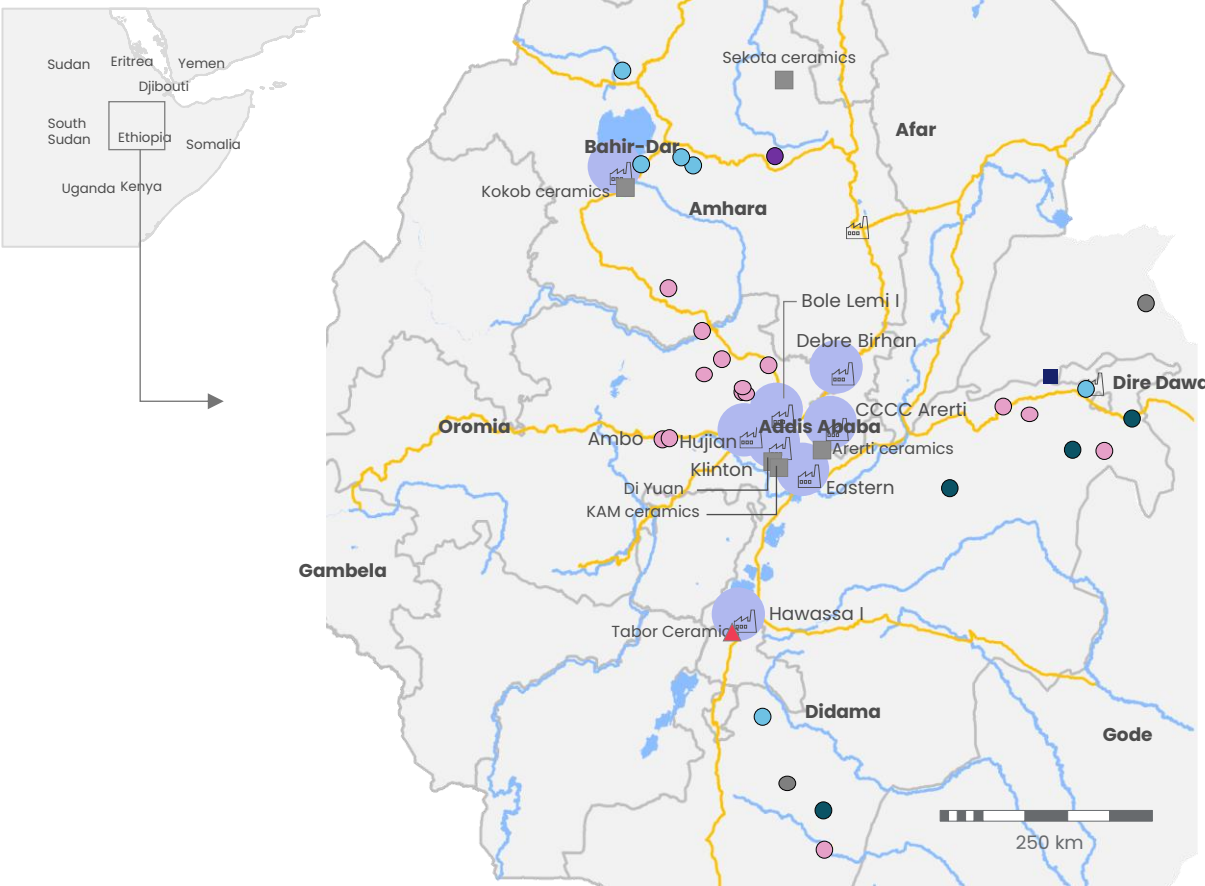
Other operational expenditure beyond raw materials drives the majority of costs, accounting for ~89% of the total unit costs

Cost reduction levers could make domestic production competitive including alternative thermal energy sources

5 The proximity of input materials and industrial parks in Addis Ababa present an attractive opportunity for sanitaryware investments

NON-EXHAUSTIVE

Location of resources and major gypsum board manufacturers in Ethiopia



- ▲ Sanitaryware company
- Ceramics companies
- Industrial parks
- Kaolin
- Quartz
- Feldspar
- Silica



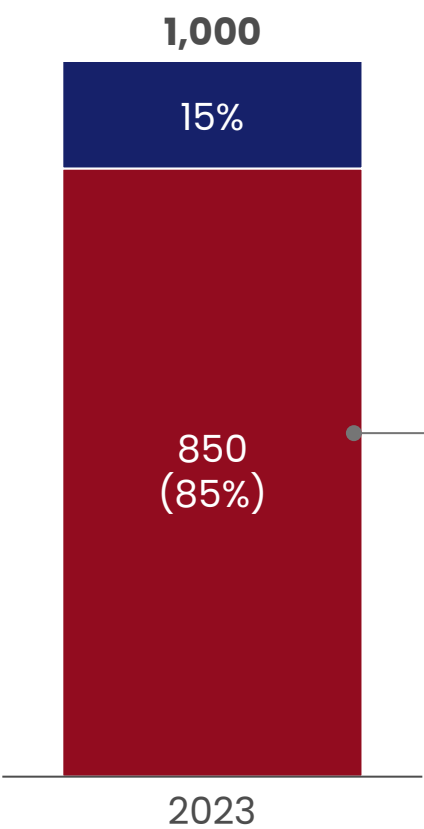
Key insights

- The **only sanitaryware producer is in Hawassa Industrial Park**, which suggests **room for new entrants**, including in industrial zones for shared utilities with ceramic tile manufacturers
- A **significant share of future housing** is likely to emerge **around Addis Ababa** and its suburbs
- **Locating new sanitaryware plants near Addis Ababa ensures proximity to the primary market and key resources**, optimizing supply chain resilience
- **Additionally, the capital offers a more stable security environment compared to outlying regions**, minimizing risks of disruption

5 Local sanitaryware production operates at 85% capacity but with operational inefficiencies

■ Unutilized capacity ■ Actual production




Current local production capacity, tonnes



Best practice comparison

	Local sanitaryware producer	Global best practice
Annual output, avg pieces¹	34k	~2Mn
Thermal energy costs, % of total production costs	35%	~25-30%
Product offering	Wash basin, water closet, squats pan, urinal, pedestal, bidet, bath accessories (e.g., toilet roll holder)	
Prices, USD/piece	Water closet: 65; Wash basin: 24	

Key insights

-  **Highly inefficient kilns** leading to high thermal energy costs
-  **Outdated equipment and relatively lower quality control** increase rejection rates due to defects
-  **Competition from foreign brands** which strongly positioned in premium SKUs with established brand perception and in basic SKUs through advanced automation and cost-effective production

1. Assuming 25kg as the average weight for sanitaryware ceramics

5 Therefore, greenfield investments stand out as the most compelling entry options for new sanitaryware investments

Market entry options



Option

Greenfield investment



Description

- **Build a full plant from scratch** (e.g., land, utilities, lines, logistics)



Key consideration

- **Technology leapfrogging** with adoption of energy-efficient kilns, high pressure casting, glaze lines
- **Maximum quality control** over defect rates and finish
- **Co-location flexibility** around quarries/industrial parks/markets



How to enter

- **Engage with the Ethiopian Investment Commission (EIC)** for detailed regulatory approvals
- **Secure long-term raw material supply agreements** for clay/kaolin, feldspar, and silica
- **Target additional conglomerates for strategic partnerships**, such as DH Geda Group, Midroc Investment Group, Sunshine Investment

JVs and brownfield expansion

- **Partner with an existing local player** to combine market access and funding
- **This joint venture can expand the capacity of the existing players** by adding new production lines, upgrading kilns, etc

- **Faster output ramp up** leveraging existing know-how, permits, sourcing and distribution channels
- **Debottlenecking opportunities** where output is capped by casting capacity, limited space
- **Legacy constraints** with outdated layouts, outdated technologies or suboptimal SKUs

- **Engage with local sanitaryware manufacturer** with existing manufacturing capacity
- **Target additional conglomerates for strategic partnerships**, such as DH Geda Group, Midroc Investment Group, Sunshine Investment
- **Utilize current permits and rights** to fast-track investment impact

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Ethiopia's robust economic growth (~7% GDP in 2024) and **construction sector expansion** (~21% of GDP, ~8% annually) **make it an attractive market**. **Demographic trends** such as a ~2% annual population increase and **rising urbanization** (~5% annually) drive this growth. Ethiopia's market appeal stems from its **growth potential, long-term competitiveness, and governmental backing**

2 Market trends and outlook



Ethiopian elevator market has significant growth potential, driven by **increasing demand for multi-storey residential and commercial buildings**. Under accelerated construction growth scenarios, the market could expand from **USD 23.5 million in 2023 to USD 127.4 million by 2031**, while the supply gap could increase from USD 16.6 million to USD 123.6 million, highlighting a potentially attractive investment opportunity

3 Feasibility in Ethiopia



Ethiopia offers a competitive advantage for scaling domestic elevators production through **high urbanization rates, skilled labour pool and elevator standards regulation**

Five primary investment risks could impact investment returns: market cyclicity, demand dependence on expanding high-rise units, FX restrictions, energy and infrastructure vulnerabilities, and regulatory/security issues. These risks can be **addressed through long-term supply agreements with developers, phased localization of components** (such as **motors and control systems**), and collaborations with experienced local distributors

Ongoing economic reforms could further unlock elevators manufacturing (e.g., development of industrial parks)

4 Example project: Economics



An illustrative investment in **a small-scale elevator assembly facility** could unlock an estimated **NPV of USD 3.6 Mn** with a corresponding **IRR of 26%, capturing 13% of demand**


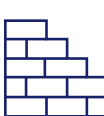

5 Location & entry options




Establishing an elevator plant close to Addis Ababa would be favourable due to proximity of industrial parks and high demand concentrated within the city. **Greenfield** stands out as the most compelling entry option. Moreover, **strategic partnerships would provide access to complex components**, accelerate entry and improve credibility in the local market


1 Ethiopia's investment landscape is strengthened by the localization of input materials

Economic and construction growth, supported by demographic shifts makes Ethiopia an attractive market ...with strong fundamentals for investment


 <p>Robust economic growth</p>	<p>~7% GDP growth in 2024</p>	<p>4Bn+ FDI investments in 2024</p>	<p>~6% FDI growth in 2025</p>
 <p>Large construction sector</p>	<p>~21% Share of GDP in 2024</p>		<p>~8% Baseline growth between 2026-2029</p>
 <p>Favourable demographics</p>	<p>~2%+ Population growth; median age of 19 in 2025</p>	<p>~2Mn Urban population growth in 2024</p>	



Market opportunity
Predictable demand for elevators is expected to significantly increase, driven by rapid urbanization



Long-term competitiveness
Structural cost advantage over imports due to reliable access to local raw materials and low-cost labour

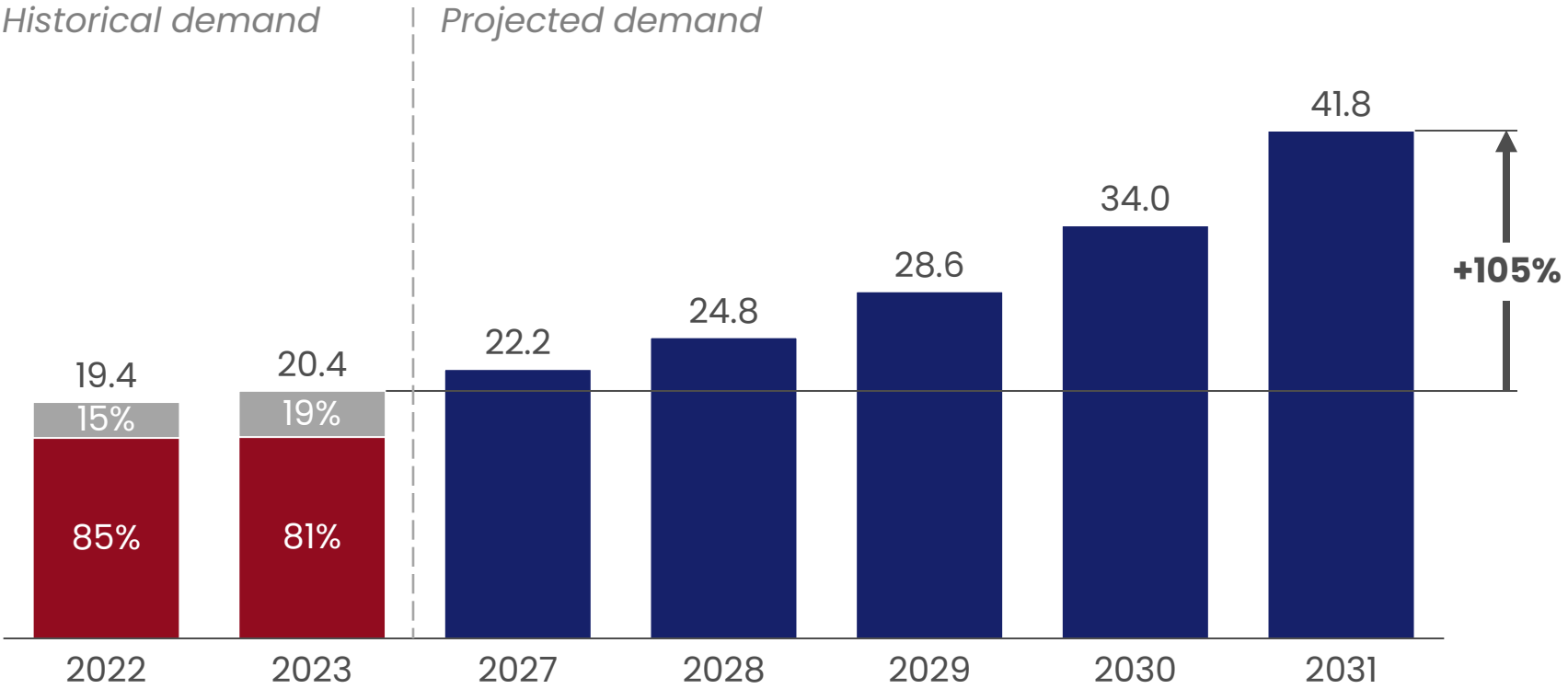


Government support
Strong policy backing for localisation, including import substitution and targeted incentives (e.g., tax holidays, duty exemptions)

② Elevator demand could more than double, providing an import substitution opportunity

■ Locally manufactured/assembled ■ Imported ■ Baseline demand

Ethiopian elevator historical and projected demand¹, Mn USD



Key insights

Imports account for 80% of the growing elevator market exceeding 20Mn USD in 2023

The market could more than double between 2026-2031, driven by a surge in high-rise units due to strong urbanization

As demand outpaces current local supply, the market creates headroom for domestic production to scale

1. Includes import HS codes 842810: lifts and skip hoists for complete imports and 843131: Parts of lifts, skip hoists, or escalators for parts

Source: UNComtrade, WITS (World Integrated Trade Solution), press search

3 Ethiopia has strong structural advantages to scale up domestic production of elevators

PRELIMINARY

Dimensions

Key considerations for Ethiopia

Demand



- **Expected market expansion** as urbanization grows by ~5% annually, driven by high-rise and commercial developments in Addis Ababa increasing elevator demand
- **Limited domestic capacity to meet demand**, creating opportunities for more local players

Labour



- **Growing engineering pipeline supporting competitiveness** in semi-manufacturing, assembly, installation and maintenance (2.1k USD p.a. mechanical engineer salary vs 25k USD p.a. global average)
- **TVET expansion supports technical scale-up** in welding, fabrication, and industrial operations (e.g., TVET schools have expanded to over 800)











Regulation



- **Core lift standards are now mandatory**, covering safety (CES 385:2024), installation classes (CES 386:2024), and ride quality (CES 388:2024) in Ethiopia's 2025 catalogue
- **Improved building-code enforcement and certification** given clearer guidelines on lift classes and inspection

3 Five key investment risks can be managed through targeted planning and mitigation

PRELIMINARY

Risk category	Description	Impact	Mitigation strategies
Market dynamics 	<ul style="list-style-type: none"> The construction market is typically cyclical, which will be dependent on the economic situation Strong low-cost imported elevators could impact local production, especially from China 		<ul style="list-style-type: none"> Secure long-term contracts with top developers to deliver consistent volumes of elevators Optimize cost base through strategic partnerships to realize competitive component costs
Demand outlook 	<ul style="list-style-type: none"> Demand growth is partly dependent on the pace of high-rise residential and commercial construction activity 		<ul style="list-style-type: none"> Diversify exposure across residential, commercial, mixed-use, industrial and public-sector projects
Financial challenges 	<ul style="list-style-type: none"> High capex intensity and FX exposure during plant import, commissioning¹, and yield ramp-up challenges High interest rates and constrained long-term financing 		<ul style="list-style-type: none"> Partner with experienced OEMs to ease access to imported components and enable knowledge transfer to stabilize yield KPIs Negotiate favourable credit terms on both the suppliers' and customers' sides
Energy & infrastructure platform 	<ul style="list-style-type: none"> Grid instability due to poor quality, voltage fluctuations & maintenance issues Fuel supply variability due to high and volatile costs of diesel 		<ul style="list-style-type: none"> Site near stable industrial corridors/Industrial parks with reliable energy and supply chains Set up long-term fuel/energy contracts Site near stable industrial corridors/Industrial parks with reliable energy and supply chains Set up long-term fuel/energy contracts
Security & regulatory environment 	<ul style="list-style-type: none"> Logistics disruptions in some regions due to conflict Slow licensing and land approval processes leading to delays in market entry 		<ul style="list-style-type: none"> Locate the plant near the capital to minimize security risks and ensure safe operations Engage early with the Ethiopian Investment Commission to secure the investment permit and sequence downstream approvals

1. Commissioning: transitioning the plant from construction to stable commercial production

3 The Government of Ethiopia is also implementing ongoing economic reforms to unlock the manufacturing sector

Economic reforms

█ Already executed █ Ongoing implementation

 <p>Foreign exchange floatation</p>	<p>Banks and licensed offices are allowed to trade forex freely after the ETB was floated in mid-2024</p> <p>Exporters are allowed to keep 100% of their foreign-currency earnings, and foreign investors can repatriate 100% of capital</p>
 <p>Import/export reforms and initiatives</p>	<p>ECMS¹ automation replaced manual imports/exports, reducing import release time from 44 to 12 days</p> <p>Duty-free, quota-free access to the EU markets through EBA (Everything but Arms)</p>
 <p>Industrial parks development</p>	<p>~13 sector-specific industrial parks have been developed across different regions in the country, led by Industrial Parks Development Corporation (IPDC)</p>
 <p>'Ethiopia Tamrit' initiative</p>	<p>The government has initiated a national programme to strengthen the manufacturing sector by addressing key bottlenecks, encouraging import substitution, and boosting competitiveness through targeted initiatives, including improvements in infrastructure and access to financing</p>

1. ECMS - Electronic Customs Management System

4 Example project: Elevator assembly can unlock a potential NPV of 3.6Mn USD and achieve an IRR of 26%, driven by significant demand

PRELIMINARY

 Detailed next

Business case outputs		Base case scenario
A Capacity	Total capacity, units	1000
	Investment	CAPEX, total \$M
B Revenue¹	Annual revenue, avg. \$M/yr.	14.7
C OPEX	Component cost, avg. \$M/year	9.9
	Assembly cost, avg. \$M/yr.	3.3
	Installation and maintenance costs, avg. \$M/year	3.2
	NPV (up to 2038, 10% discount rate), \$M	3.2
Project economics	IRR (fixed prices), %	27
	Operating margin, %	11
	Payback, yrs.	3

Highlights



- **Elevator assembly business case was modelled using global benchmarks as well as imported component prices**, yielding a base-case NPV of ~3.6Mn USD and an IRR of ~26%, with a primary focus on serving domestic demand
- **Assumed production capacity is approximately 1000 units per year**, in line with small-scale facilities in comparable global markets (e.g., India)
- **Development is expected to take approximately 12 months**, although timelines in Ethiopia may be extended by factors such as import delays and permitting processes
- **Cost structure benefits from low-cost assembly**, which accounts for 25% of OPEX²
- **The remaining 75% of OPEX³ is driven by cost of imported components** including traction machines and safety gears

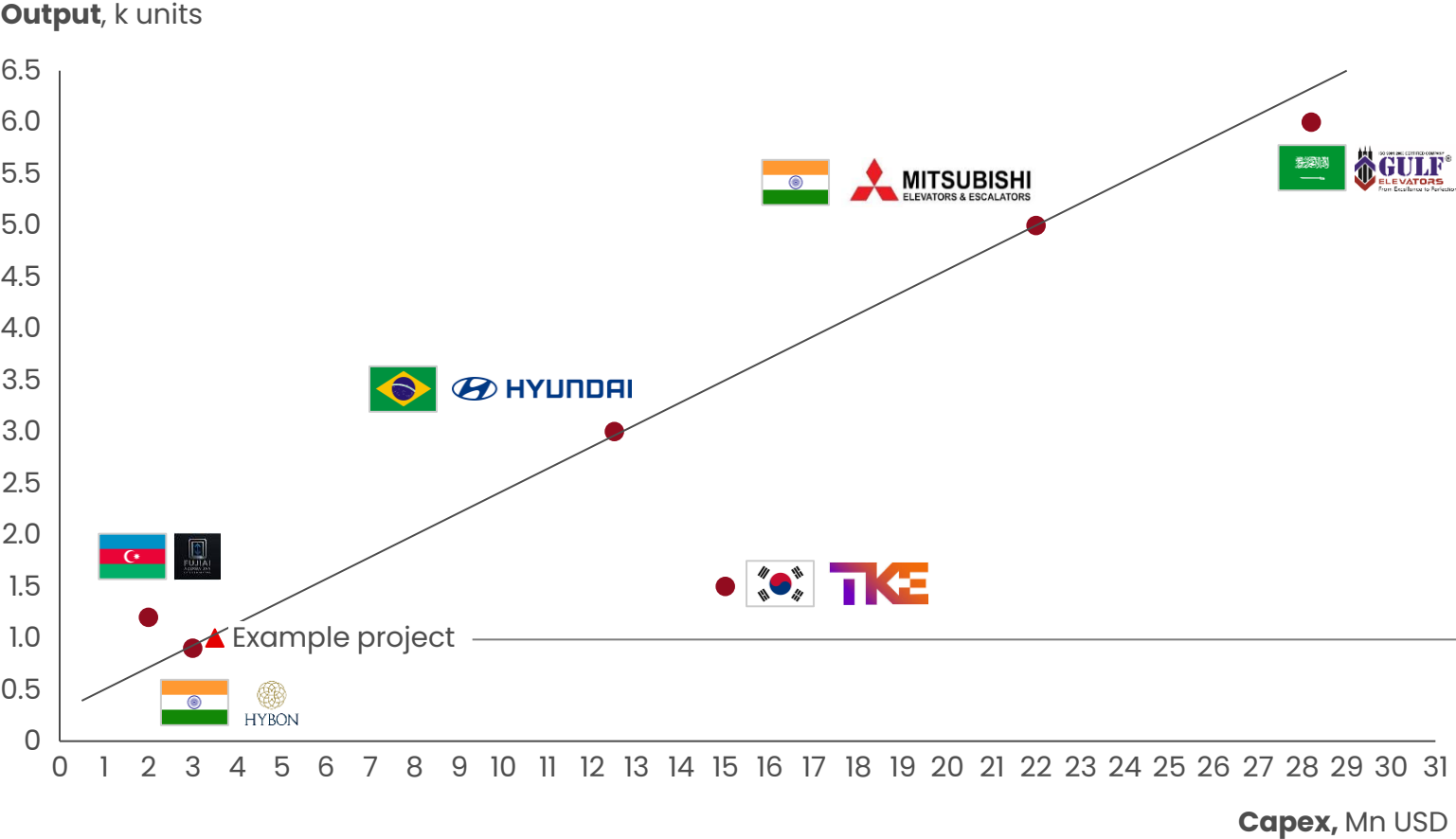


Selective semi-manufacturing of components (e.g., cars, doors, traction machines and hoist ways) **could lower cost of goods sold**, but would require **additional investment in labour and machinery**

1. Total of 3 revenue streams: 1) Elevator sales at 17k USD per unit 2) Installation fees at 1.4k USD/unit 3) Maintenance fees at ~460USD/year/unit
 2. Opex ranges attained from Ethiopian case study of semi-manufactured elevator supplier in 2012. Opex accounts for 25% of overall costs
 3. Component costs include current factory gate prices of different parts from Indian and Chinese sellers like Made in China, Trade India, Alibaba etc

4 A. In Ethiopia, small-scale assemblers balance investment risk and output to meet demand, with long-term potential for semi-manufacturing

Investment needed per production capacity, Mn USD



Example project profile

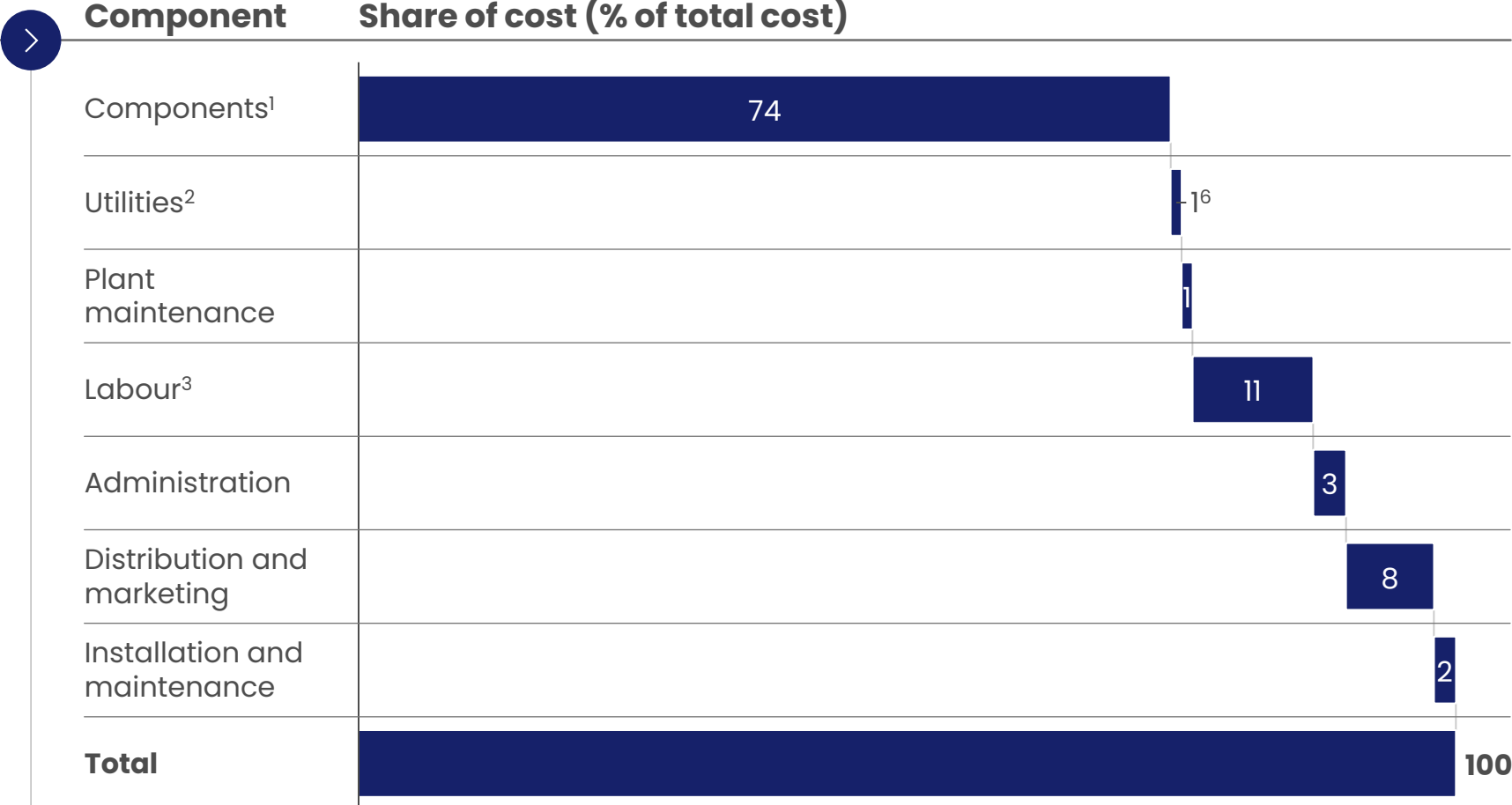
- A small-scale assembly plant requires ~3.2Mn USD in capex, driven by relatively low machinery and equipment needs
- The plant would offer a ~1000-unit annual capacity, with modular expansion potential as demand grows
- This investment can be positioned as an **entry point** for localized assembly, with a long-term **pathway toward selective component manufacturing**

1. Plotted capex is 3Mn USD adjusted with a cost premium of 5% reflecting potential supply chain inefficiencies in setting up the plants

4 C. Operating cost is heavily driven by components costs, which account for 75% of total costs

Key assumptions

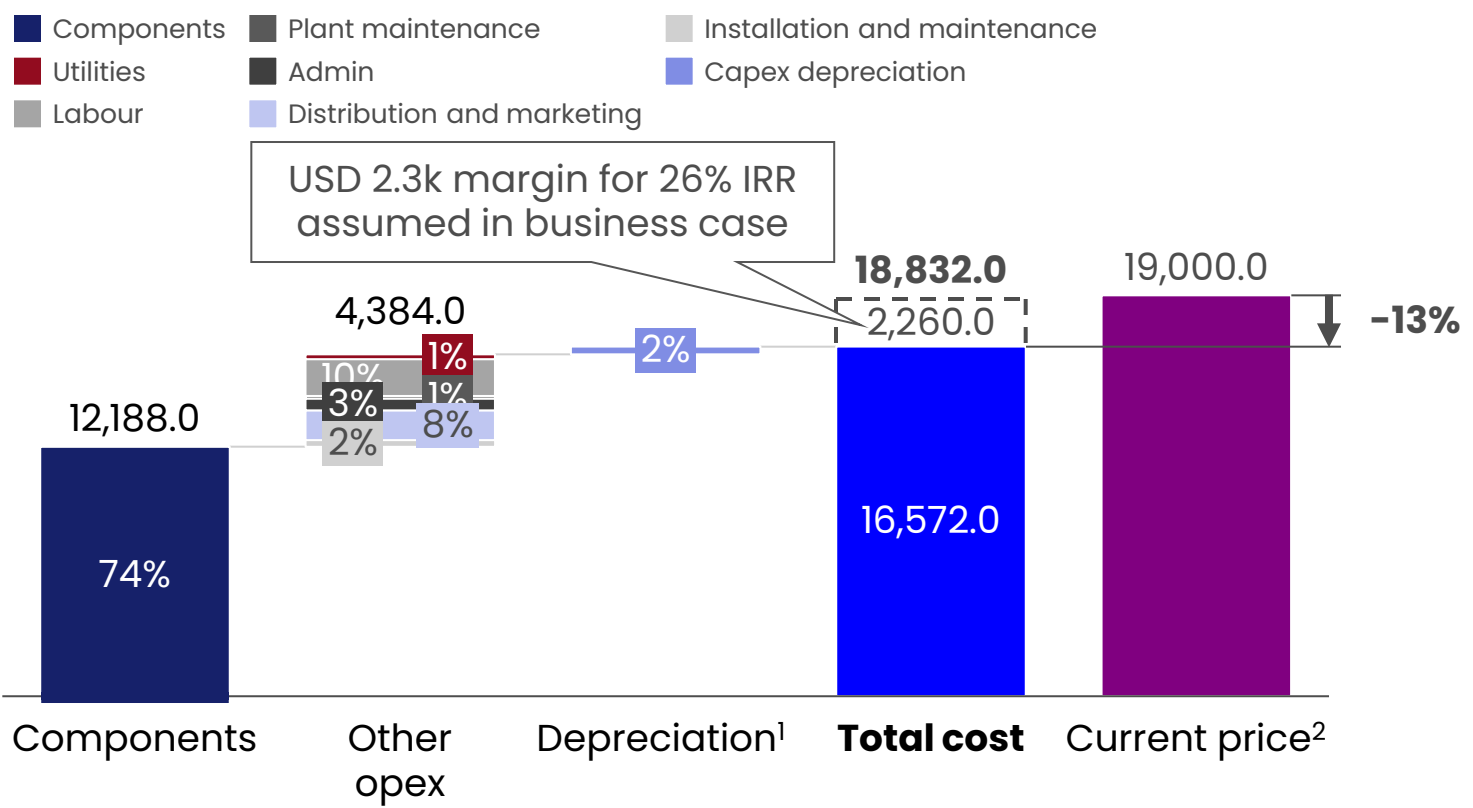
- The assembly plant is expected to incur high component costs, as key elevator parts are typically imported
- Potential to transition to semi-manufacturing of selected components, including cars, doors and hoist ways
- Plant would employ skilled local labour across assembly, installation support and quality control functions



1. Includes components that could be locally fabricated (cars, doors, hoist ways) and imported parts like safeties, traction machines and control systems
 2. Including energy costs as electricity and fuel is needed for welding, shaping and general lighting
 3. Cost to employ engineers for assembly and component fabrication

4 C. Locally produced elevators could be more price competitive compared to foreign brands, with 13% less production costs

Elevator production unit cost estimation, USD/unit



Key insights

Local production is ~13% cheaper than current market prices, supported by local assembly and lower-cost labour

Cost of goods sold drive majority of total costs, accounting for ~75%, largely reflecting imported components

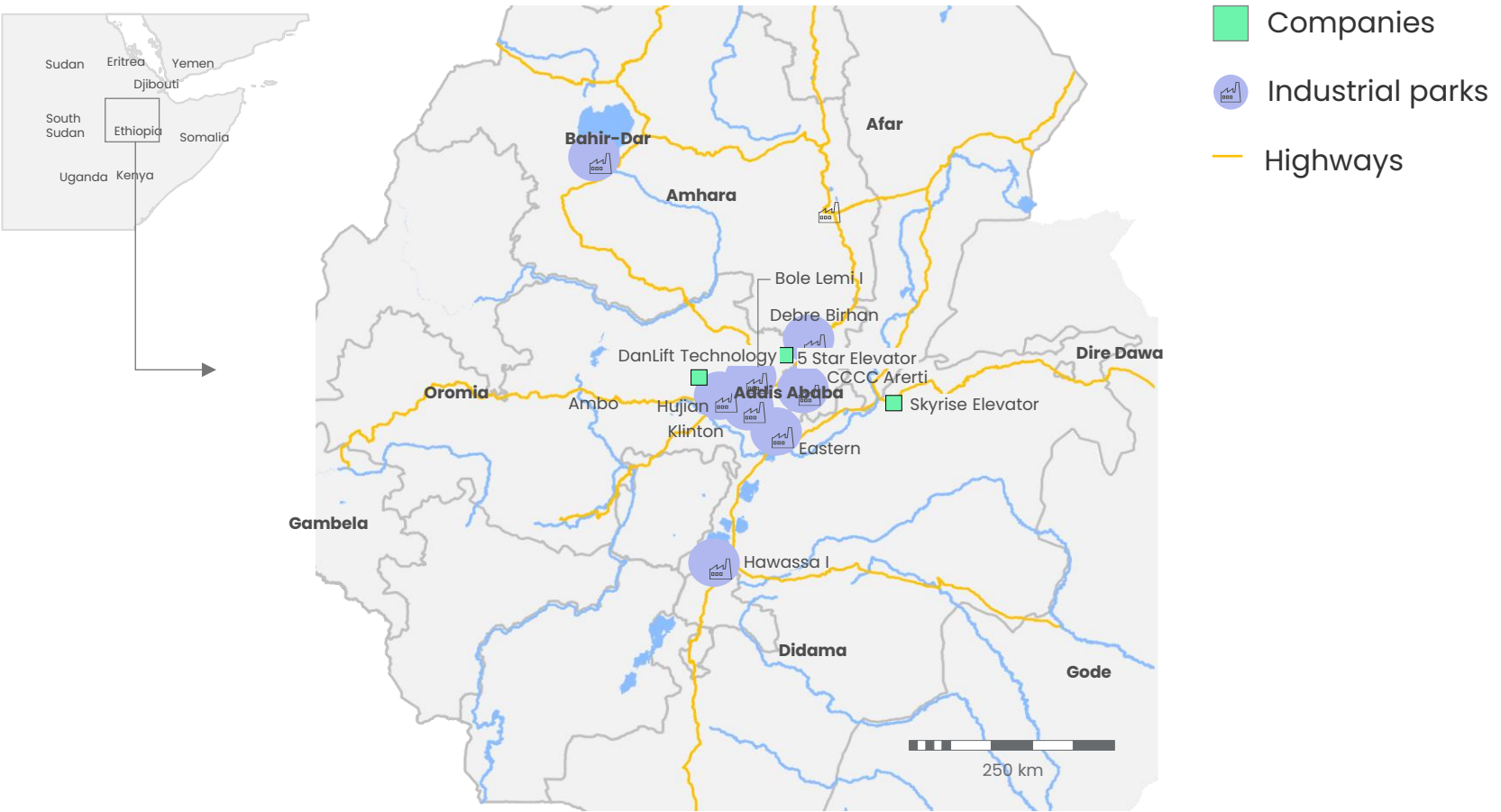
Unit economics could improve further through select component manufacturing (e.g., cars, doors, and hoist ways), strategic sourcing partnerships for more complex components and scale efficiencies in assembly operations

1. Depreciation is applied for 10 years for this analysis, but could be lower if used longer-term depreciation
 2. Average local price of elevators (mostly imported brands) is 19k USD/unit; conversion rate of 155.05 ETB applied

5 The proximity of industrial parks in Addis Ababa present a strong opportunity for elevator investments

NON-EXHAUSTIVE

Location of resources and major elevator manufacturers in Ethiopia



Key insights

- Existing elevator semi-manufacturers are located within Addis Ababa, given proximity to industrial parks and demand
- A significant share of high-rise housing is likely to emerge around Addis Ababa and its suburbs
- Locating new elevator plants near/within industrial parks ensures proximity to the primary market, optimizing logistics
- Additionally, the capital offers a more stable security environment compared to outlying regions, minimizing risks of disruption

5 Therefore, greenfield investments stand out as the most compelling entry option for new elevator investments

Market entry options

PRELIMINARY

 Recommended option for Ethiopia


Option

Greenfield investment



Description

- **Build an assembly plant from scratch** with potential to manufacture some parts (e.g., cars/cabins, doors)



Key consideration

- **Maximum control** over product quality and technical standards
- **Co-location flexibility** near industrial parks/major urban markets to improve logistics and utility access
- **Stronger capability-building platform** from the outset



How to enter

- **Engage with the Ethiopian Investment Commission (EIC)** for detailed regulatory approvals
- **Secure foreign partners** for core components (e.g., traction machines, controllers, safety gear)
- **Target additional conglomerates for strategic partnerships**, such as DH Geda Group, Midroc Investment Group, Sunshine Investment





JVs and brownfield expansion

- **Partner with an existing local player** to combine market access, operational know-how, and funding
- **This joint venture can expand the capacity of the existing** for new assembly, testing, or component fabrication lines


- **Faster route to market and after-sales coverage** through existing installer and service networks
- **Transfer of know-how** helping address local technical skill gaps
- **Less optimization flexibility** than greenfield in plant design and process flow

- **Engage with local elevator manufacturers** with existing manufacturing capacity
- **Target additional conglomerates for strategic partnerships**, such as DH Geda Group, Midroc Investment Group, Sunshine Investment
- **Utilize current permits and rights** to fast-track investment impact


5 While partnering can limit local capability-building, it enables faster entry and lowers technical risk for complex components

Partnership dimension	Advantages	Disadvantages
 Core capabilities	<p>Access to strategic and high-technology subsystems that are harder to build locally</p> <p>Reduced technical and certification risk by relying on proven foreign designs and subsystems</p>	<p>Dependence on foreign suppliers for core technologies and capability in the most strategic parts of the elevator stack</p> <p>Risk of partner misalignment if incentives are not structured to promote meaningful local capability-building</p>
 Execution	<p>Faster market entry by allowing the plant to start with localized assembly while importing complex parts</p> <p>Shorter learning curve by leveraging an existing technical package and operating model</p>	<p>Less flexibility if the local plant must operate within the partner's technical and operating model</p>
 Market positioning	<p>Improved market credibility by linking the plant to a recognized OEM and its standards</p>	<p>Weakened ability to build standalone brand over time</p>
 Value capture	<p>Efficient use of internal resources on localizable activities, lowering upfront capex versus a fully integrated manufacturing model</p>	<p>Margin leakage where technology access is governed by license fees, royalties, or revenue-sharing</p> <p>Limited long-term value capture if higher-value subsystems remain imported</p>


Components to partner on¹

- A Drives**



Machines, electronic (geared, gearless) or servo gearless and beamer drives

- B Electronics**


Connectors, buses and other simple electronics

- C Safeties**


Safeties, safety gears

- D Others**


Inverters, air conditioning, non-core spare parts

1. Doors, cabins/cars, slings and frames, shafts would be locally manufactured

