

A close-up photograph of a person wearing a bright blue work jacket and a grey work glove, holding a white hard hat. The background is a blurred industrial setting with many bright, circular lights, suggesting a factory or warehouse environment.

Cold Solutions Tanzania JV Business Plan

November 23

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Glossary of terms

ARCH	ARCH Cold Chain Solutions East Africa Fund, ARCH Emerging Markets Partners Limited
BoT	Bank of Tanzania
°C	Degrees Celsius
CAGR	Compounded Annual Growth Rate
CCSEAF	Cold Chain Solutions East Africa Fund
CSE AHL	Cold Solutions East Africa Holdings Limited
CSTHL	Cold Solutions Tanzania Holdings Limited
Dar	Dar Es Salaam
EU	European Union
FAO	Food and Agriculture Organisation
GHGs	Green House Gases
GMP	Good Manufacturing Practise
HACCP	Hazard Analysis Critical Control Points
IRR	Internal Rate of Return
JV	Joint Venture
k	Thousands
Meydan	Meydan & Co. Limited
mn	Millions
mt	Metric Tonne

NGOs	Non-governmental Organisations
QSR	Quick Service Restaurants
SHA	Shareholders Agreement
SHFs	Small Holder Farmers
SMEs	Small and Medium Enterprises
Tanzania	United Republic of Tanzania
TZS	Tanzania Shilling
3PL	Third Party Logistics
UNICEF	United Nations International Children's Emergency Fund
USD/ \$	United States Dollars
WFP	World Food Programme

Business overview

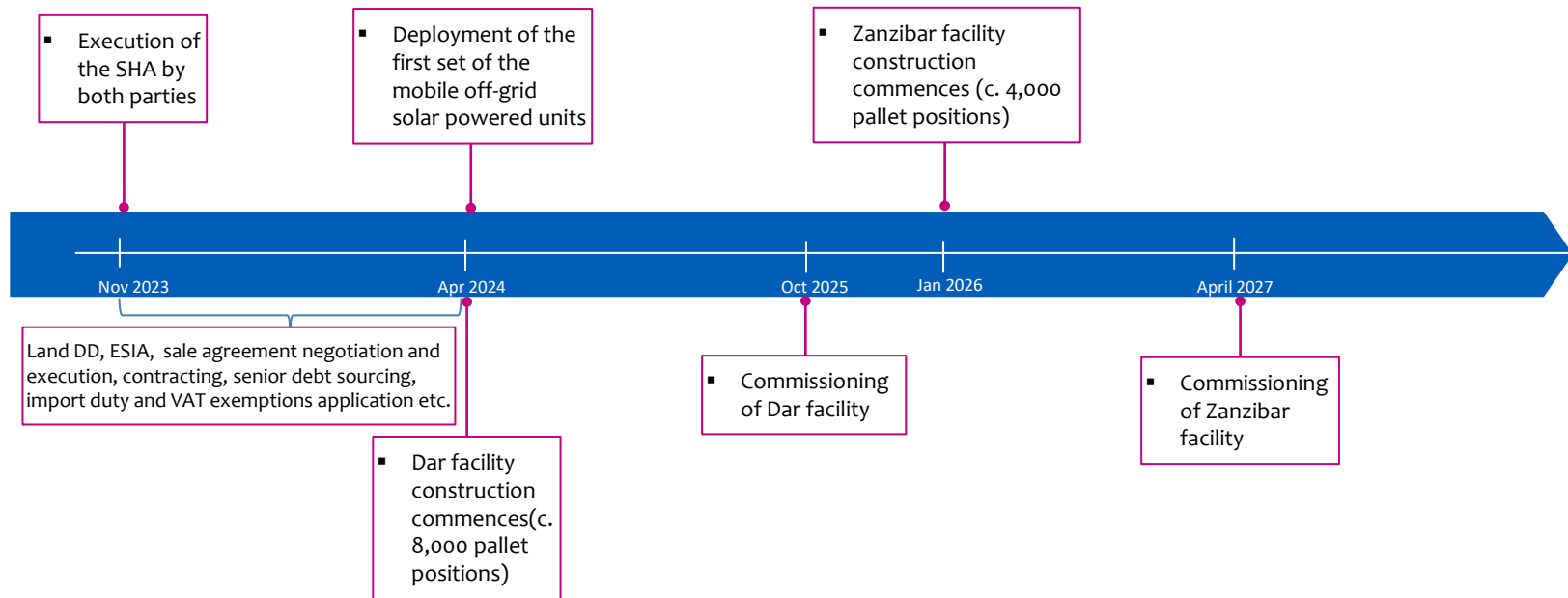


Cold Solutions Tanzania Limited will invest in end-to-end temperature-controlled supply chain comprising storage, distribution and related services and activities in Tanzania.

Background

- ARCH Cold Chain Solutions East Africa Fund (ARCH) focuses on developing and operating large scale energy efficient cold chain solutions businesses throughout 5 countries in East Africa (Ethiopia, Kenya, Rwanda, Tanzania and Uganda). The Fund plans to invest in up to 8-10 facilities across these countries as well as a fleet of temperature-controlled trucks and off-grid solar powered mobile solutions.
- Meydan & Co. Limited (“Meydan”), is a company domiciled in Tanzania and is engaged in multiple businesses. Meydan is an affiliate of Transcargo Limited, a leading logistics company in Tanzania with operations across Eastern Africa.
- ARCH and Meydan have recently signed a binding shareholders agreement in order to co-invest in Tanzania’s cold chain market through Cold Solutions Tanzania Limited.
- The JV will operate under the trading name, Cold Solutions.
- The Company will be 80% owned by Cold Solutions East Africa Holdings Limited, a private company limited by shares with a Global Business License issued by the FSC (“CSEAH”), in turn wholly owned by ARCH Cold Chain Solutions East Africa Fund LP, a limited partnership duly registered in Mauritius with a Global Business License and an authorization by the FSC to operate as a Closed End Fund – Professional Collective Investment Scheme (License Number – GB19100040) (the “Fund”).
- The Company will be 20% owned by Meydan & Co. Limited.

The roll out of the planned projects is expected to be concluded over a period of c. 3 years i.e., between Q2 2024 and Q2 2027



The Company's planned investments will be financed through a mix of debt and equity in a 60:40 ratio.

Roll out plan

Phase I

Phase I entails:

- the construction of a temperature-controlled facility on a 7 acre greenfield site in Dar Es Salaam by Cold Solutions Tanzania Limited and is projected to cost c. USD 35 mn (including working capital). Construction is expected to commence in Q2 2024 with commissioning expected in Q4 2025.
- the Investment will also entail a fleet of temperature controlled trucks. These will be leased.
- investment in a mobile cold storage business potentially through a JV with an Indian partner and supplier of the mobile units, Ecozen. We target to deploy 50 units in Tanzania starting Q2 2024. The total projected cost is c. \$ 1.8 mn including working capital support for the business. The total equity spend on this project is projected at c. USD 0.6 mn whereas USD 1.3 mn will be financed by debt.

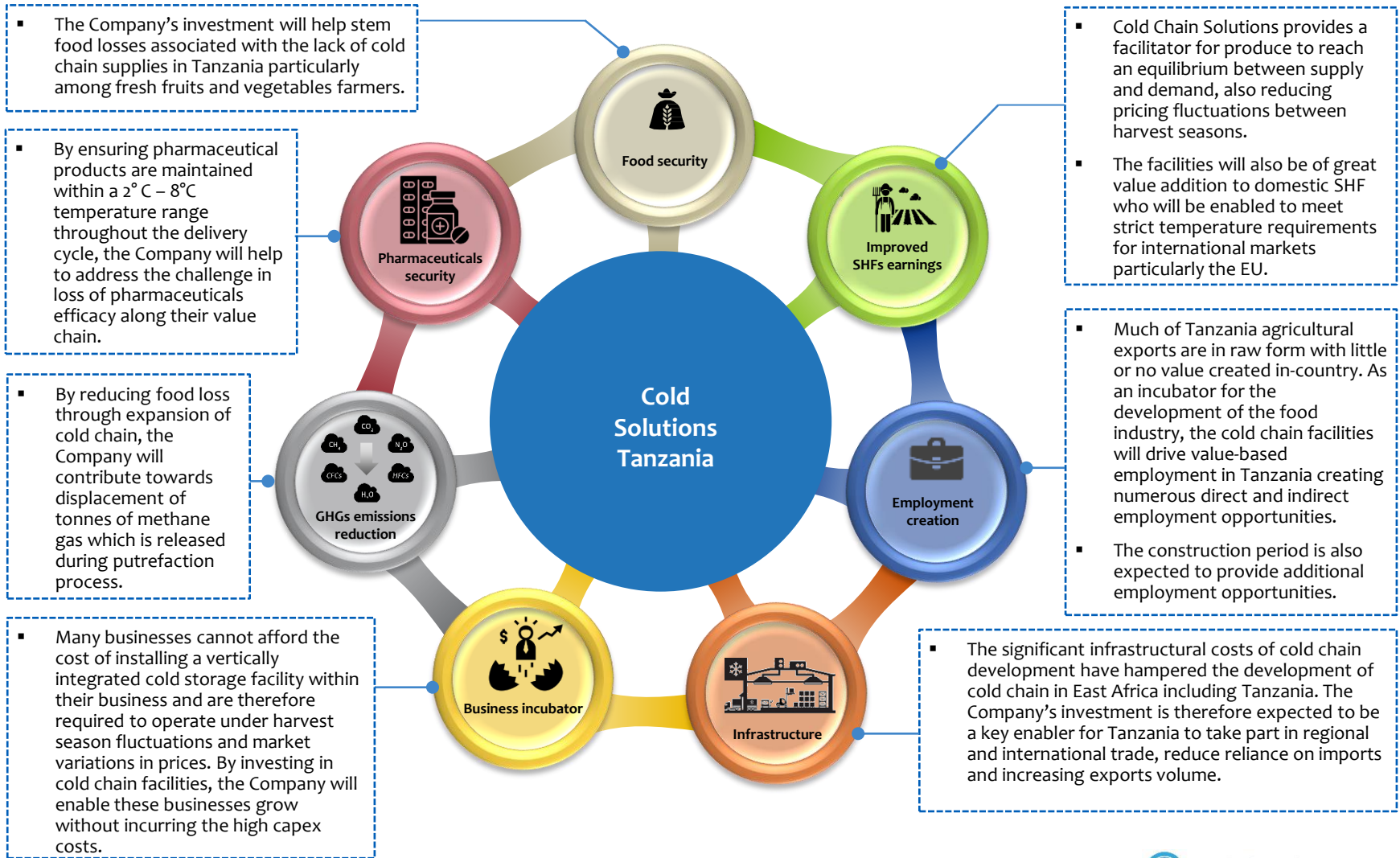
Phase II

Phase II will entail:

- the construction of a temperature-controlled facility on a 2 - 4 acre greenfield site in Zanzibar by the Zanzibar opco and is projected to cost c. USD 20 mn (including working capital). Construction is expected to commence in Q1 2026 with commissioning expected in Q3 2027.
- expansion of the Dar Facility once full capacity utilization (90%) is achieved which is projected to be in Q3 2027. To the extent that the overall business performance is favourable and there is adequate operational cashflows, it is anticipated that the expansion project will be fully financed through internally generated cashflows.

- Please note that all the costings shared in this business plan are **indicative** and **not final**.
- Please refer to slide 36 for a detailed breakdown of the equity contributions by each JV party and the total investment costs.

The Company will be an enabler to economic growth in Tanzania through its network of cold chain facilities by focusing on seven key themes.



**Proposed project
(phase I)**



The proposed project entails the construction of a temperature-controlled facility on a 4-6 acre greenfield site within Kisarawe Industrial Area by Cold Solutions Tanzania Limited and is projected to cost c. USD 35 mn

Address	Plot #P9506, Kigogo, Kisarawe Industrial Area, in Kigamboni Municipality, Dar Es Salaam City
Location	The plot is located in Kisarawe Industrial Area approximately 15kms from the airport and 25 kms from the marine port. The property is situated at google coordinates GPS Coordinates: -6.925646, 39.381679.
Size	The proposed facility will be developed on 7 acres of the land



The proposed project features a cold storage facility with 4 chambers with temperature ranges of -25 to +26 degrees Celsius and c. 8,000 racking pallet positions



The proposed concept design will feature:

- Circa 8,000 racking pallet positions.
- 4 chambers with temperature ranges of -25 to +26 degrees Celsius
- 5 loading/unloading docks in standard docking configuration.
- Office space, staff welfare facilities and pack house semi-detached from the storage facility.
- Refrigeration & MEP plant rooms
- Back of house facilities – pallet repair area, staff parking, LV and genset plant rooms

- The construction of the proposed facility is expected to take 18-20 months.
- Some of the construction materials of the facility are expected to be sourced locally (c.30-40%) whereas 60-70% of the materials will be imported largely from Europe.
- During the construction period, it is expected that an average of 400 casual and skilled workers will be employed at the site whereas upto 200 casual and administrative personnel will be employed during the operations period.

Each facility will be designed and built to the best international standards with careful considerations being given to ESG impacts and risks.



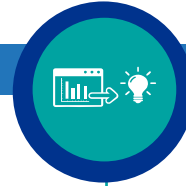
International standards

- The facilities will be developed and constructed according to the best international standards, utilising the latest technological advancements.
- The facilities will utilise expertise from ARCH's inhouse technical and project management team, Cold Solutions Services as well as experienced facility design and engineering consultants.
- Each facility will be built with fire protection polyurethane panelling and the latest technologies for refrigerants, condensers, compressors.
- The facilities will be constructed with maximum flexibility in mind to best meet the needs of multiple customers and the multi-product nature of those customers.



ESG considerations

- The Company will consider and manage ESG impacts and risks associated with the construction and operation of each of its facilities.
- Each facility will be developed and run in line with local and international ESG standards.
- Each facility will be built with solar back-up and will be utilizing natural refrigerants i.e., ammonia or CO₂.
- Each facility will be designed and developed to attain gold certification in Leadership in Energy and Environmental Design (LEED), the most widely used green building rating system in the world.



Customised warehouse management and distribution systems

- Each facility will have a suite of systems including an Enterprise Resource Planning (ERP), Warehouse Management Systems (WMS) and Transport Management Systems (TMS) which will all be integrated into one system.
- The Company will utilise experienced and internationally recognised suppliers such as Boltrics, Dove Tail, EPG, Sage, Oracle etc.
- This will ensure the Company seamlessly controls and manages its sales and finances. Within the facility, the Company will be able to monitor temperatures, records humidity, register batch numbers, monitor production and expiry date information, etc.



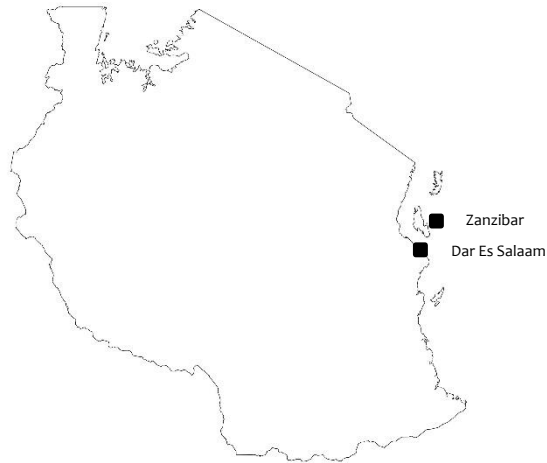
Dedicated management team

- Each facility will have a dedicated Management Team led by a facility manager with clearly outlined reporting lines and job descriptions.
- The Management Teams will be responsible for the overall performance of their facilities and will report to the Country Managing Director.
- Please refer to page 30 for an overview of the Management Structure

Country overview



Agriculture forms the backbone of the Tanzania economy employing c. 64% of the total working population as at 2021 according to International Labour Organisation



Overview

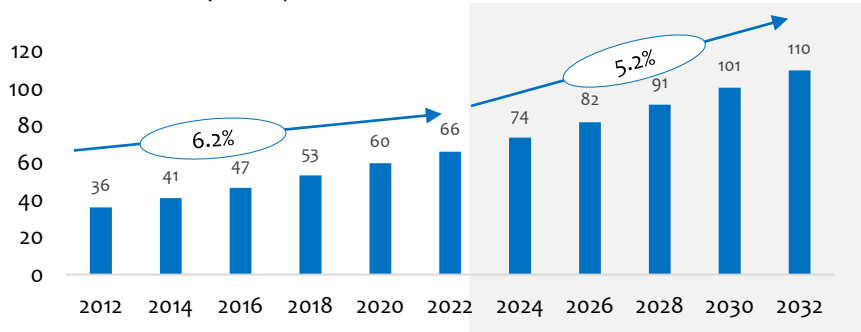
Tanzania is experiencing sustained economic growth, with Gross Domestic Product (GDP) consistently averaging 6.1% per annum for the last ten years (to 2022). This is largely attributable to economic reforms and sound economic policies that were introduced since the second half of the 1990s.

Capital	Dodoma
Official language	Swahili and English (Arabic in Zanzibar)
Area	947,303 Km ²
Population	61.7 million (2022 census)
GDP (Nominal)	\$ 76.5 billion (2022 estimate), Per Capital: \$ 1,245
Gini	40.5
HDI	0.549
Currency	Tanzania Shilling (TZS)

Source: World Bank, Wikipedia

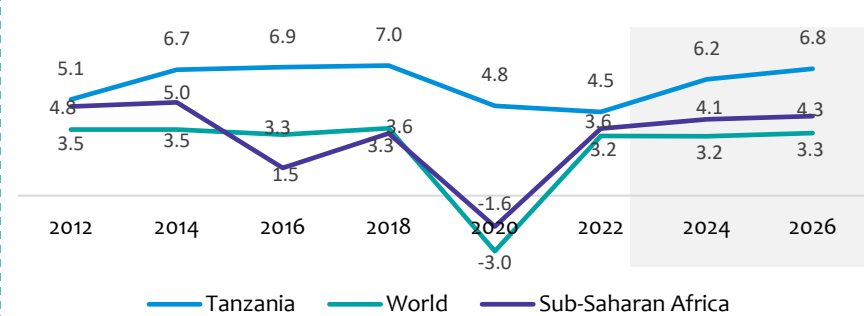
Tanzania is projected to sustain robust economic growth over the next decade largely on account of strong performance in the services sector, increased public spending on infrastructure projects and exploration of underdeveloped natural resources.

Tanzania real GDP (Usd bn)



Source: Fitch Solutions

World, Sub-Saharan Africa and Tanzania real GDP % change

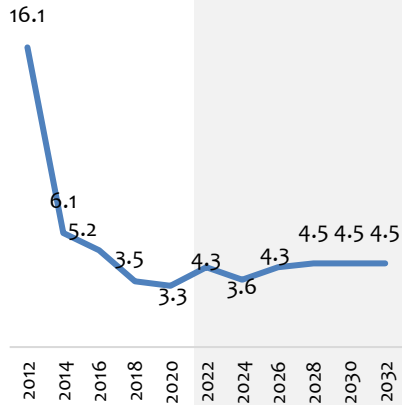


Source: International Monetary Fund (World Economic Outlook Database)

- Tanzania’s real GDP grew by a CAGR of 6.2% from USD 36 billion in 2012 to USD 66 billion in 2022. The nominal GDP is expected to further grow at a 5.2% CAGR to USD 110 bn by 2032 largely underpinned by robust growth in the industrial and services sectors. Growth is also expected to be largely driven by a friendlier business environment, IMF policy reforms, increased regional trade and cooperation and increased exploration of underdeveloped natural resources including mining deposits.
- Growth is further expected to be buoyed by resilient growth in the construction, mining, information and communications technology (ICT), and transport sectors. These sectors are largely expected to be supported by increased Foreign Direct Investment (FDI) flows on account of the improved business environment under the leadership of President Samia Hassan Suluhu.
- In particular, public spending on large-scale flagship projects such as the East African Crude Oil Pipeline, natural gas extraction, the standard gauge railway line, and the 2.1GW Julius Nyerere Hydroelectric Power Project, is expected to drive strong economic performance in the short term.
- Downside risks include the high inflationary environment on account of the Russia-Ukraine war and widening current account deficit on account of rising import bills particularly in relation to oil and capital goods for the infrastructure projects.
- Tanzania is one of the fastest growing economies in the world with real GDP having grown over the past 10 years (to 2022) by an average of 6.1% p.a. compared to 3.2% in Sub Saharan Africa (SSA) and 3.1% globally.
- Tanzania’s real GDP is forecast to outperform the world and SSA over the forecast period (2023 - 2026) expanding by an average of 6.3% (global – 3.2%, SSA – 4.1%).

The recovery of the tourism sector coupled with growth in export receipts and inflows from development partners has provided supported to the Tanzania shilling which has performed relatively better compared to its peers

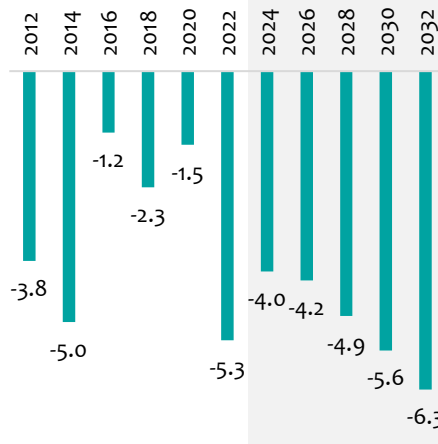
Inflation (%), 2012 – 2032



Source: Fitch Solutions, Tanzania National Bureau of Statistics

- Tanzania targets an inflation range of 3% - 5%, and targets to maintain this range through monetary policy interventions by the BoT mainly through adjustments to the CBR.
- Inflation rose to 4.3% in 2022 and is expected to remain elevated in 2023 as a result of the poor harvest conditions and the ongoing Russia-Ukraine war.
- Inflation is expected to fall to 3.6% by 2024 and moderate at 4.5% as global inflationary pressures ease and effects of the Russia-Ukraine war abate.

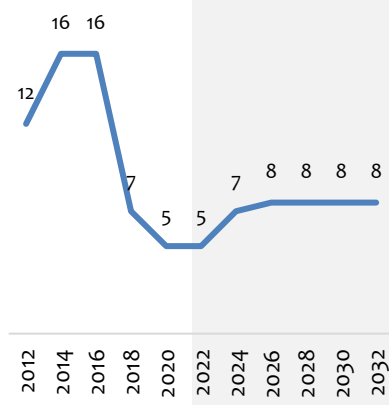
Current account deficit, 2012 – 2030 (USD bn)



Source: Fitch Solutions, BoT

- Tanzania's current account deficit increased from USD 3.8 bn in 2012 to USD 5.3 bn as at 2022 largely fueled by increased capital imports due to the ongoing large-scale infrastructure projects and growth in petroleum imports.
- The trade deficit is expected to widen to USD 6.3 bn by 2032 as the Government continues rolling out infrastructure projects.
- The trade deficit is expected to be supported by increased foreign aid and international investment as well as growth in export receipts as the agriculture sector recovers from the impact of drought and the Russia-Ukraine war.

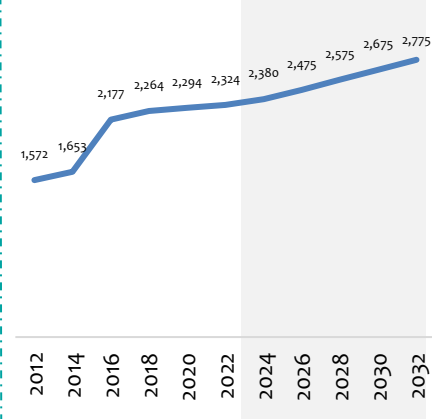
Policy rate, 2014 - F2024



Source: Fitch Solutions, BoT

- On September 24 2022, the monetary policy committee (MPC) held the benchmark interest rate at 5.00% - the 13th consecutive hold, following a 200bps cut in 2020 in response to the Covid pandemic.
- Since September 2022, in response to inflationary pressures, the BoT has been reducing liquidity in the economy instead of adjusting the interest rate unlike peer central banks.
- The BoT is expected to hold the policy rate at 5% until end of H2 2023 and hike it by 100 bps to 6% by end of 2023 to contain price pressures particularly .

USD/TZS FX rate, 2012 - F2032



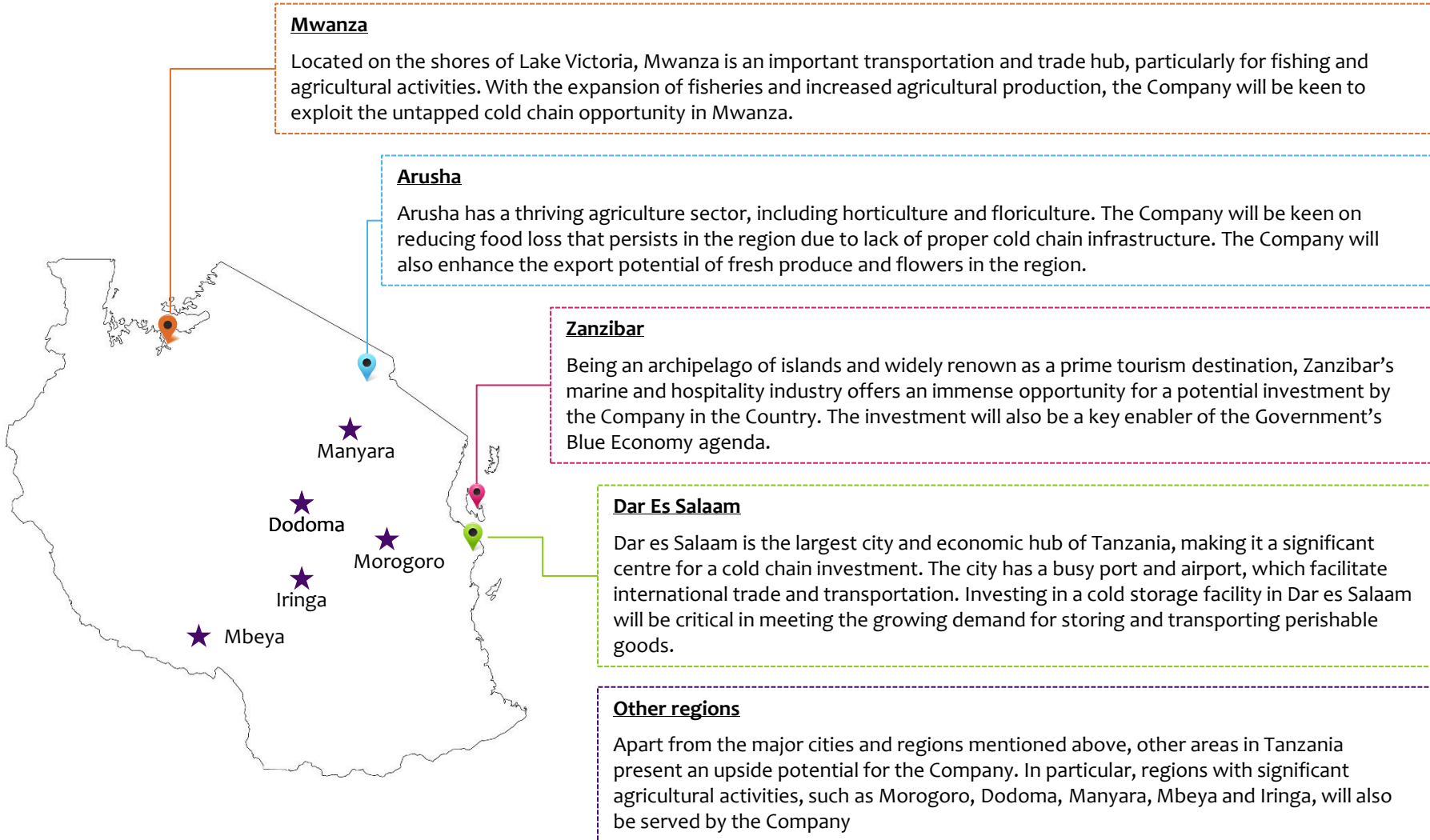
Source: Fitch Solutions, BoT

- According to projections by Fitch Solutions, the Tanzania Shilling (TZS) is expected to depreciate against USD at 1.8% p.a. over the forecast period 2023-2032.
- The TZS has been under pressure largely owing to a strengthening of the dollar and a widening current account deficit. TZS has however outperformed peer currencies due to steady growth in forex receipts owing to improved performance in the tourism sector, growth in exports and increased inflows from development partners.

Market analysis

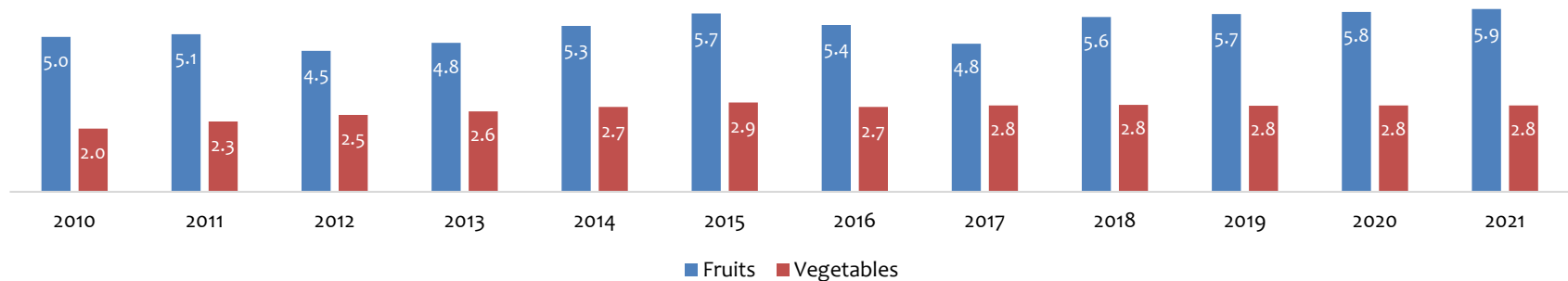


Tanzania's cold chain infrastructure remains largely underdeveloped presenting a significant investment opportunity for the Company



Tanzania's fruits and vegetables subsector is consistently growing with the potential to make a significant contribution to the economy as well as to food and nutrition security. The Company will be at the forefront of supporting this subsector.

Fruits and vegetables production volumes (millions tonnes)



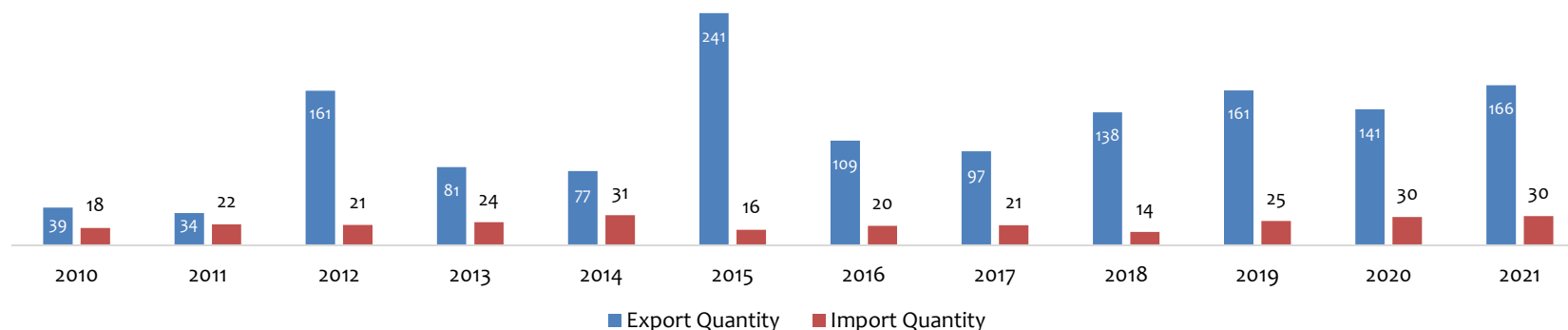
Source: FAO; Wageningen Economic Research, 2021

Fruits and vegetables production

- According to data from FAO, fruits production in Tanzania has grown at a 2% CAGR from 5 mn tonnes in 2010 to 5.9 mn tonnes as at 2021.
- In particular, production of oranges, pears, plums and sloes and watermelons recorded marked growth rates of 123%, 142%, 156% and 161%, respectively.
- Vegetables productions in Tanzania has grown at a 3% CAGR from 2 mn tonnes in 2010 to 2.8 mn tonnes as at 2021.
- This growth was largely driven by driven by increased production of beans, cabbages, onions and tomatoes.
- According to Tanzania Horticulture Association (TAHA), the Northern highlands presents the highest potential for horticulture production owing to its conducive climate, adequate infrastructure and proximity to markets. The Coastal zone is well-suited for off-season production of tropical fruits and has the potential to further increase production of mangoes, pineapples, oranges and papaya. The Southern Highlands particularly Mbeya hold high long term potential for horticulture whereas the Central and lake zone are classified as emerging horticulture production areas.
- TAHA further identifies that there is need for development of cold chain development across the zones to develop their export capacities. This finding is cemented by the Ministry of Agriculture which identifies post harvest losses as one of the key challenges in the sector (refer to appendix I for a summary of the market surveys undertaken by ARCH in Tanzania)

Tanzania's fresh fruits and vegetables sector has significant potential for both import substitution and export opportunities. Development of cold chain infrastructure will unlock this potential.

Fruits and vegetables trade ('000 tonnes)



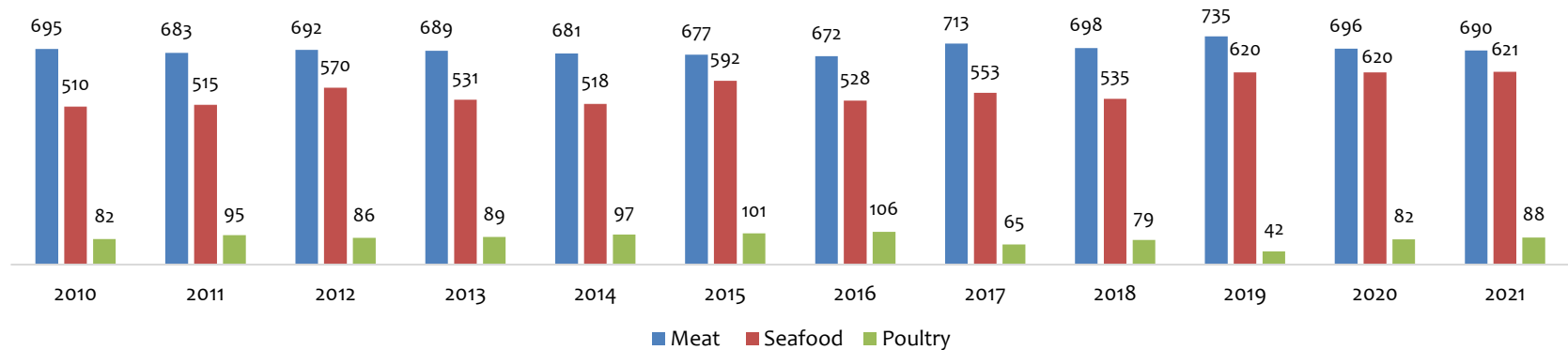
Source: FAO

Fruits and vegetables trade volumes

- Tanzania has seen a notable growth in the volume of its fruits and vegetables exports over the past 10 years (2010: 39 k tonnes, 2021: 166 mn tonnes). This highlights the rising demand for Tanzania's fresh fruits and vegetables in regional and international markets.
- The country's proximity to regional markets, such as Kenya, Uganda, and the Democratic Republic of Congo, provides a strategic advantage for regional trade. Europe is the key international market for Tanzania's fruits and vegetables.
- Fruits and vegetable imports have primarily been driven by the need to fulfil year-round requirements for certain crops that cannot be grown throughout the year due to seasonality or limited local production capacity. Imports have grown at a relatively slower pace (2010: 18 k tonnes; 2021: 30 k tonnes) over the same period highlighting the agricultural productivity of the country on account of vast lands with fertile soils and its favourable climate.
- To fully unlock the sector's potential and ensure its sustained growth, investing in a reliable cold chain infrastructure is imperative. This infrastructure is crucial for preserving the quality and extending the shelf life of fresh fruits and vegetables. Currently, Tanzania faces significant challenges in its cold chain infrastructure, which limits the growth and competitiveness of the sector.
- The lack of adequate cold storage facilities, refrigerated transportation, and proper handling practices result in post-harvest losses, reduced product quality, and limited market access. These challenges hinder the country's ability to meet international quality standards and supply consistent quantities of fresh produce.

To fully realize the potential of meat, poultry, and seafood production in Tanzania, a robust cold chain infrastructure is crucial

Meat, poultry and seafood production volumes ('000 tonnes)



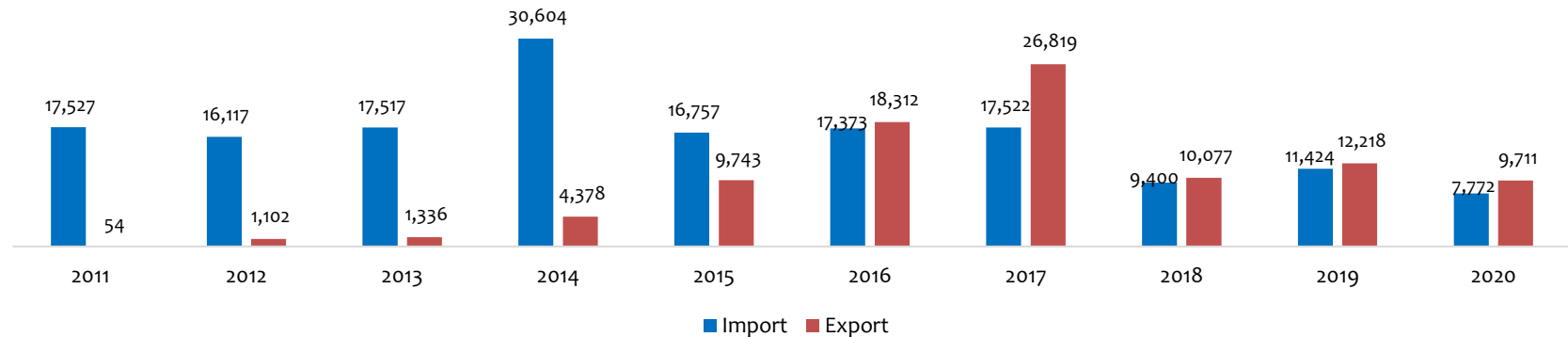
Source: FAO

Meat, poultry and seafood production

- Overall, Tanzania's proteins sector has seen a marginal growth over the past 10 year with total production increasing from 1.3 mn tonnes in 2010 to 1.4 mn tonnes in 2021.
- Meat, poultry, and seafood production in Tanzania play a significant role in the country's economy and food security. However, there are various challenges that need to be addressed, such as the need for improved infrastructure, including a robust cold chain system, to support the growth of this sector.
- The poultry industry in Tanzania has great potential for growth. Poultry farming, especially chicken production, has seen a rise in both commercial and small-scale operations. However, the sector is hindered by issues such as disease outbreaks, inadequate feed supply, and a lack of modern processing and cold storage facilities.
- Tanzania has a long coastline along the Indian Ocean, providing ample opportunities for fisheries. The country has a rich marine ecosystem and is home to a variety of fish species. The seafood industry contributes to employment, food security, and export earnings. However, the industry faces challenges related to overfishing, illegal fishing practices, inadequate post-harvest handling, and weak supply chain infrastructure.
- Cold chain infrastructure would help reduce post-harvest losses and spoilage in this subsector, ensuring that more meat, poultry, and seafood reaching consumers is in good condition.

The Company will support the growth in exports of meat, poultry and seafood by enabling industry players meet stringent international quality standards.

Meat, poultry and seafood trade ('000 USD)



Source: FAO, Trend Economy

Meat, poultry and seafood trade

- Historically, Tanzania has been a net importer of meat, poultry and seafood products due to various factors such as limited local production capacity, growing urbanization, and changing dietary preferences. However, imports of these products have been on a decline in Tanzania (2011: USD 17.5 mn; 2020: USD 1.8 mn) whereas exports have increased at a 78% CAGR from USD 54 k in 2010 to USD 9.9 mn in 2020.
- Imports largely originate from countries like India, Brazil, China, and the United Arab Emirates whereas Europe is the key export market.
- In line with the high production potential as outlined in the previous slide, Tanzania also has a high potential to increase its export volumes of meat, poultry, and seafood. The development of a robust cold chain infrastructure is crucial to enable this growth.
- Access to cold chain infrastructure enable players in the industry export high-quality, value-added products to international markets as it will allow producers and exporters to meet stringent quality and safety standards, opening doors to new trade opportunities and higher revenues.

Marketing and sales



To ensure stability and predictability in sales, the Company will seek to enter into long-term contracts with its customers.



Storage services

- This relates to renting out of cold storage space to both contract and ad hoc/seasonal customers.
- The Company will strive to have a majority of its storage customers on long-term contracts to ensure stability and predictability in sales.
- The storage rates will be weekly and per pallet unless otherwise agreed with the customer. The Company will charge competitive market rates with the minimum rate per pallet per week expected to average c. USD 14/pallet/week for frozen and c. USD 11 /pallet/week for fresh.
- Pharmaceuticals are expected to be priced substantially higher (c. \$ 30/pallet/week) owing to the stringent storage requirements associated with storing pharmaceutical products including the need to have an in-house pharmacist.



First mile solution

- This relates to the leasing of mobile off-grid cold storage units (Ecofrost) to store perishable products at farm level.
- ARCH is currently seeking to enter into a JV agreement with Ecozen under which the mobile units will be distributed across East Africa including Tanzania. In the event the JV does not materialize, it is envisaged that the Company will directly procure the units from Ecozen (or an alternative supplier) and distribute these in Tanzania.
- The units will be leased on a 3-month or 6-month tenor with customers paying in advance or post-usage.
- The Company projects to deploy 10 units at the commissioning of the business and grow the number of units deployed by 10% quarterly.



Temperature controlled trucks

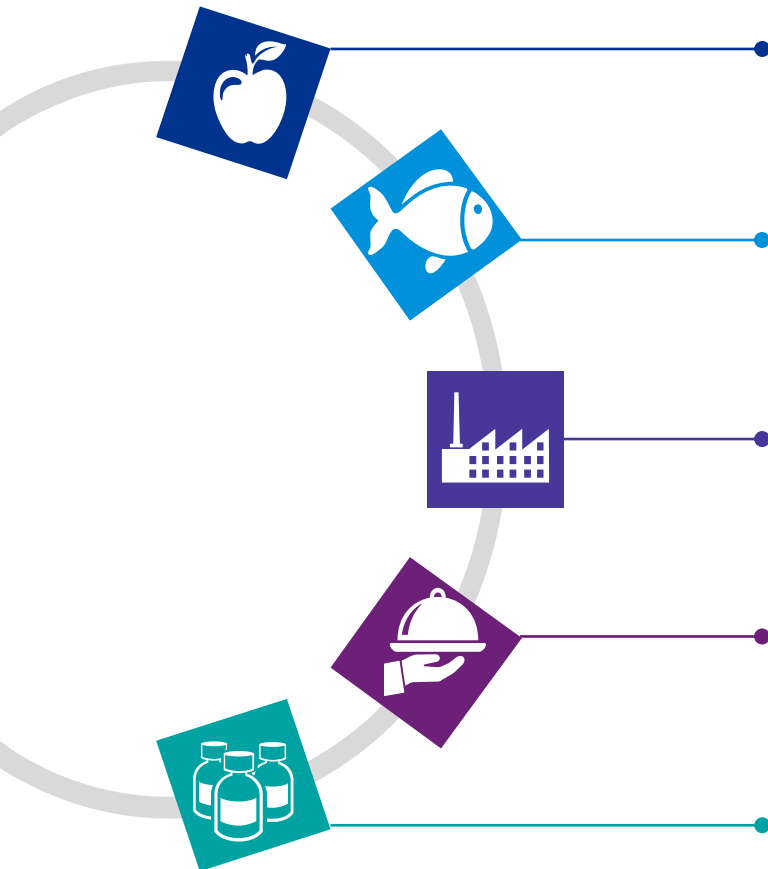
- This relates to income earned from providing temperature-controlled logistics services to customers. This revenue stream is expected to be driven by storage customers as it supplements the storage services.
- The Company will seek to have these customers on a contract basis and will charge a standard monthly rate or a trip rate depending on the customer's preference.
- The trucks will be designated for inner-city trips or long-haul trips with those designated for long-haul trips having a higher trip rate.



Ancillary services

- The Company will also offer ancillary services to its customers including but not limited to: picking and sorting, blast freezing, blast chilling labelling, handling, warehouse management etc.
- Picking and sorting is expected to have a substantial contribution to revenue generated from ancillary services particularly in the fresh fruits and vegetables sector whereas blast chilling and blast freezing revenue are expected to be largely driven by the proteins sector i.e., poultry, meat and seafood.

The Company will target five key sectors: fresh fruits and vegetables; meat, poultry and seafood; food manufacturing; quick service restaurants and supermarkets; pharmaceuticals



Fresh fruits and vegetables

- Maintaining cool, safe temperatures from harvest to the time the fruit and vegetables are consumed is key to preservation and loss reduction.
- Fresh fruit and vegetable sector in Tanzania is fast-growing sector with significant local and international market potential.
- However, underinvestment in cold chain infrastructure has hampered the exploitation of this potential with wholesalers and retailers being forced to sell their produce quickly to avoid post-harvest losses.

Meat, poultry and seafood

- Demand for animal source foods in Tanzania is projected to substantially increase in line with growth in the Country's population.
- Tanzania's poultry industry is growing significantly with high demand from the export market. Similarly, the fisheries sector are a major source of food and are crucial to livelihoods and local economies, as well as being an important export.

Food manufacturing

- Tanzania remains a net importer of processed food despite being a leading food producer in the region. The imported processed food is priced substantially higher than the input raw material.
- As experienced in other markets, investment in cold chain infrastructure ultimately results in development of the food manufacturing industry and which in turn creates significant employment opportunities.

Quick Service Restaurants (QSRs) and supermarkets

- With a burgeoning middle-class, demand for retail/ quick service restaurants in Tanzania is expected to increase over the medium and long term.
- Similar to its neighbour Kenya, Tanzania is expected to experience a marked increase in the number of global QSR and supermarket franchises seeking to set up shop to tap into this demand.

Pharmaceuticals

- As Tanzania's population increases, demand for medical services and the provision of pharmaceuticals is expected to increase proportionately. This will lead to increased demand for cold chain infrastructure to ensure the pharmaceuticals maintain their efficacy.

The Company will target to maximise revenue generation by building relationships and partnerships with government and non-governmental institutions.



Corporates

- The Company will target to strengthen already existing relationships with key corporate clients such as Kuku Foods, Yalelo and Cipla while seeking to explore new partnerships with other corporates.
- Given the critical volumes that this segment drives, the Company will develop a specific marketing approach as well as ensuring the customers experience consistent excellent customer service.



Aggregators

- Aggregators will be a key enabler to enabling the Company meet its goal of eradicating food loss in the region as they directly source produce from the small holder farmers.
- The Company will actively engage with aggregators particularly cooperatives through its network of business development representatives and ultimately reach the small-holder farmers.



Development institutions and NGOs

- The Company will target partnerships with development institutions as well as NGOs particularly those with a focus on advancing food and pharmaceuticals security in Tanzania such as WFP, FAO, UNICEF, etc.
- The first mile solution product is key relevant product that the Company will seek to leverage on to build relationships with this segment.



Small and Medium Enterprises

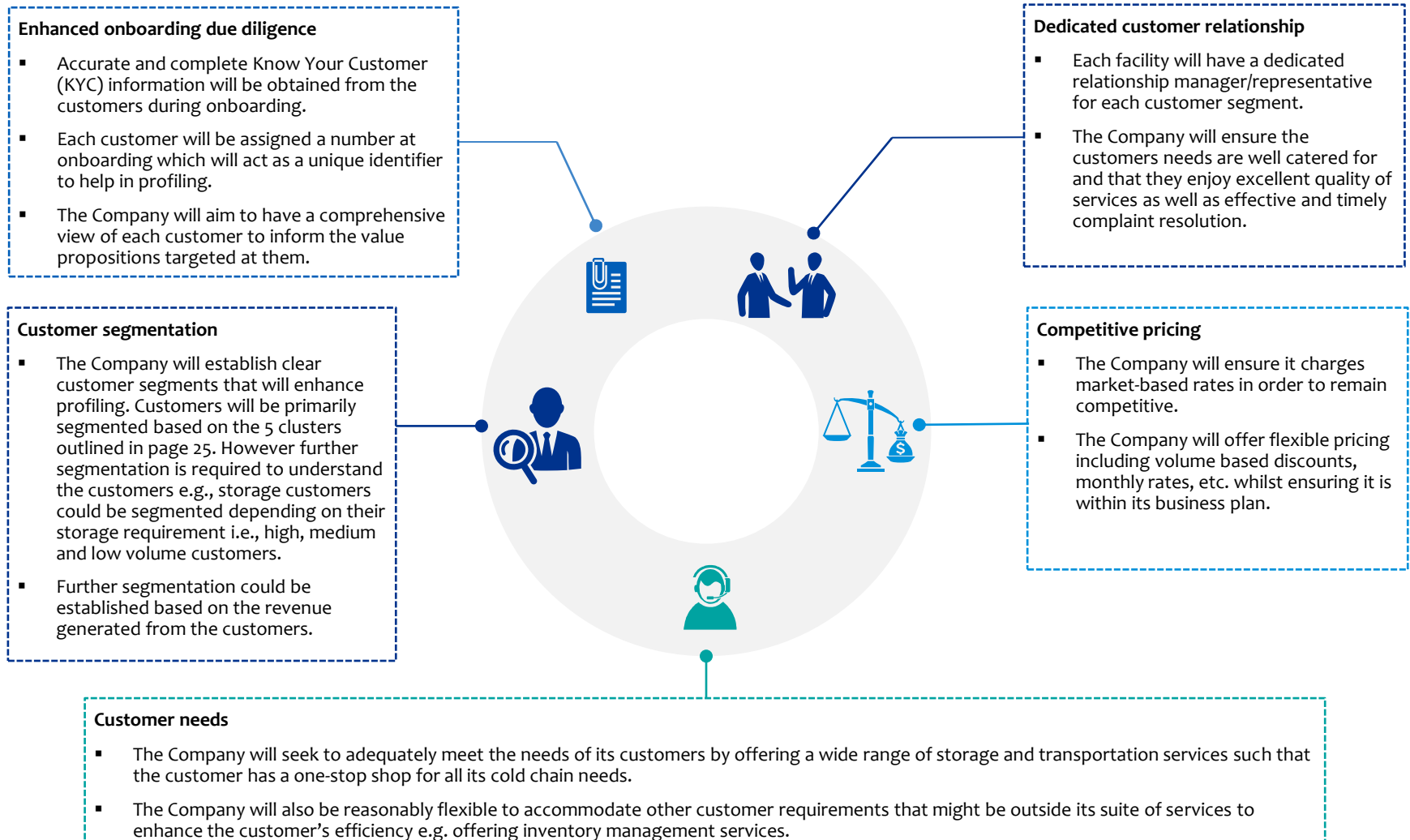
- These are enterprises with which are typically owner-managed and in their growth stage.
- Interviews with SMEs in Tanzania undertaken by ARCH highlighted significant untapped potential for cold chain players particularly in the horticultural sector where most players have to harvest, sort, pack and export within the same day to avoid post harvest losses.



Government partnerships

- The Company will actively pursue opportunities to work with the Government. The Company will build relationships with government and quasi government institutions particularly the Ministry of Health and the Ministry of Agriculture.
- In particular, the Company will target to store excess stock supplied to the National Medical Stores (NMS) as well as distribute pharmaceuticals requiring low temperatures to far flung areas.

To fully understand its customers and offer the right value propositions, the Company will seek to have complete and accurate data of its customers.



The Company will leverage on the network of Cold Solutions businesses across East Africa to expand its customer base and cement its position as the leading 3PL cold chain solutions service provider in Tanzania.

Key potential customers



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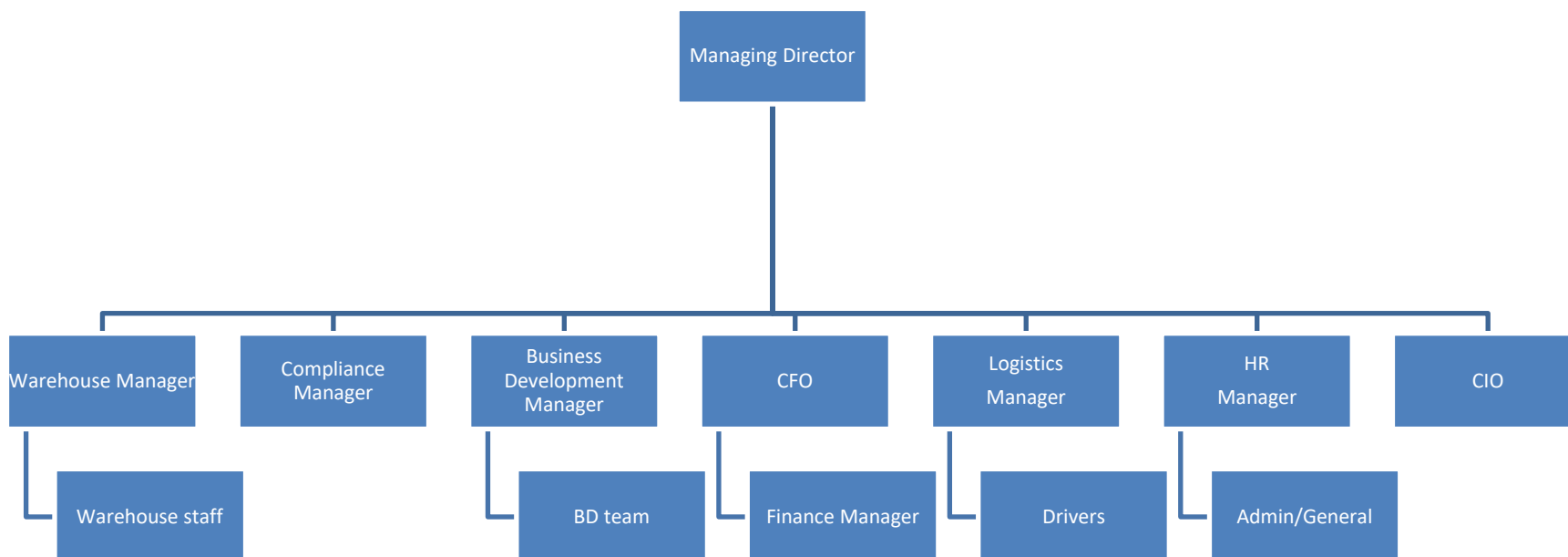


- The Company will offer high quality services and ensure customer satisfaction to acquire and retain a large customer base. A dedicated and experienced business development team will be onboarded to achieve this goal with the support of the in-country Managing Director.
- The Company will seek to maximise revenue generation from its clients by cross-selling other ancillary services.
- The roll out of ARCH's facilities in other East African markets is also expected to drive more business from these customers owing to increased efficiencies and synergies of relying on a single 3pl service provider across multiple geographies.
- As detailed under the market analysis section, Tanzania presents significant upside potential for the Company across the 5 customer groupings. The Company will leverage on its position and brand across the region to acquire clients with high cold chain demands across the 5 customer categories.
- These includes Masifio, Interchick, GSK, Carrefour, World Food Programme, Tanga Frech, JD Pharmaceuticals, Abacus Pharmaceuticals, MeTL Group, Vertical Agro, etc.
- Owing to its strong reputation and network in Tanzania, Meydan will be instrumental in spearheading business development initiatives pre and post construction in an effort to obtain letters of intent which will be particularly crucial in mobilising debt.

Organisation and management



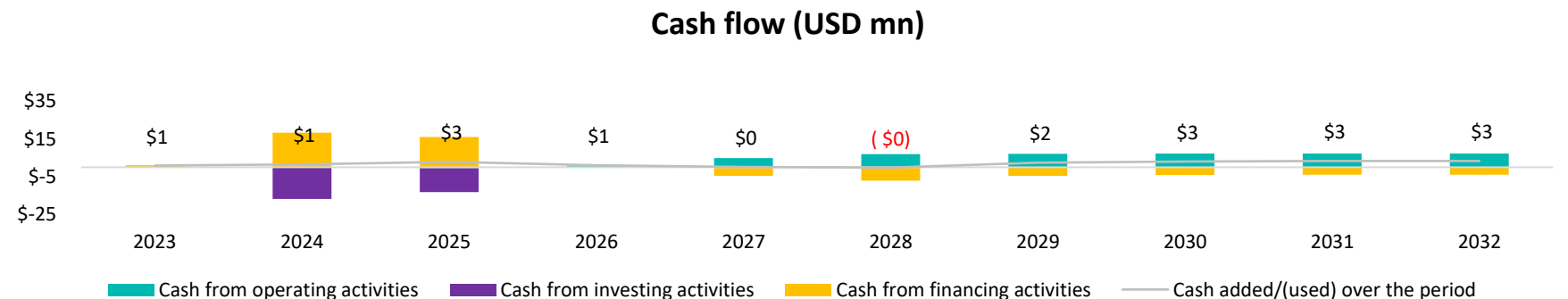
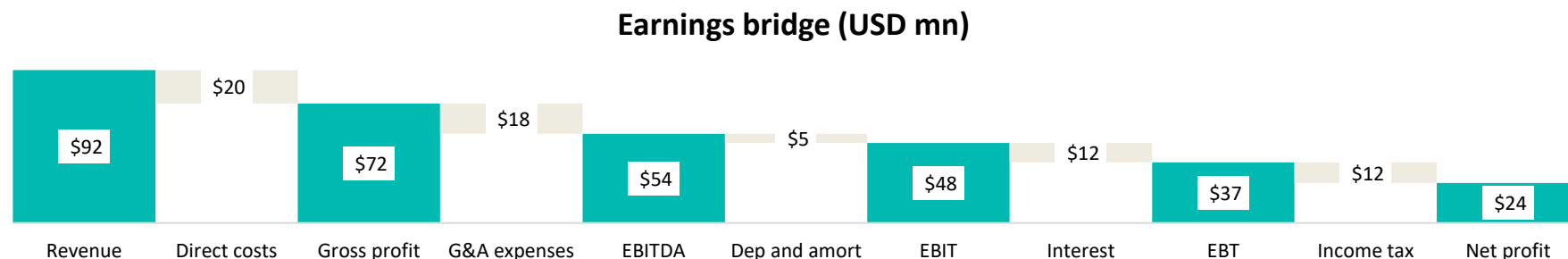
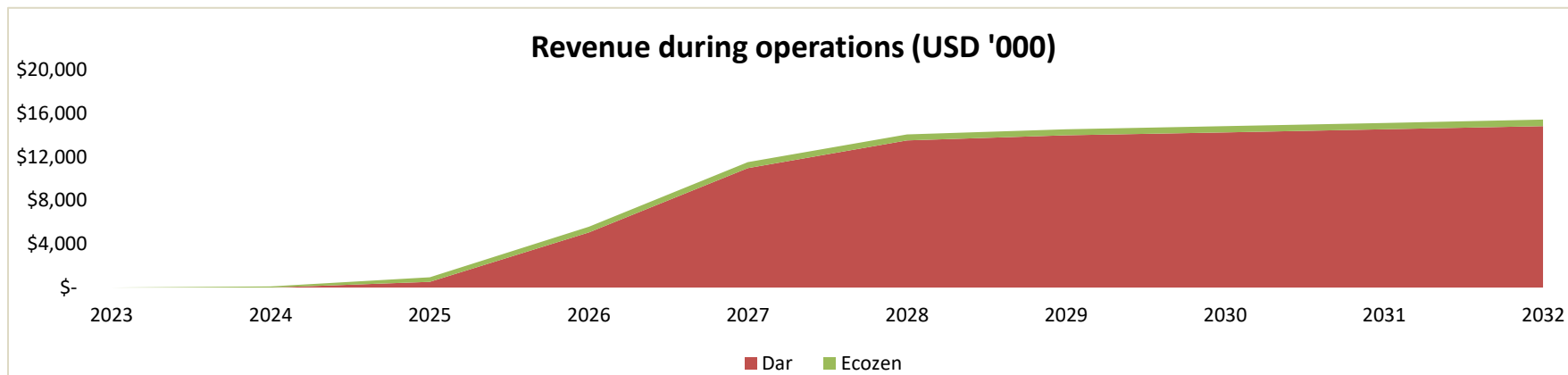
The Managing Director will oversee the operations of the Company across Tanzania. The Company will establish clear segregation of duties among the Management Team.



Financial projections



The Company is projected to generate revenues and EBITDA of USD 92 mn and USD 54 mn, respectively, over a 10-year period.



The Company is projected to generate an average GP margin of 75% whereas EBITDA is expected to average 45% over the forecast period.

Profit & loss statement (USD '000)

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Storage	\$ -	\$ -	\$ 309	\$ 3,398	\$ 7,723	\$ 9,559	\$ 9,937	\$ 10,136	\$ 10,338	\$ 10,545
Logistics	\$ -	\$ -	\$ 212	\$ 1,662	\$ 3,265	\$ 3,975	\$ 4,054	\$ 4,135	\$ 4,218	\$ 4,302
Total Ecozen revenue	\$ -	\$ 88	\$ 406	\$ 525	\$ 535	\$ 546	\$ 557	\$ 568	\$ 579	\$ 591
Total revenue	\$ -	\$ 88	\$ 926	\$ 5,584	\$ 11,523	\$ 14,080	\$ 14,548	\$ 14,839	\$ 15,135	\$ 15,438
Total direct costs	\$ -	\$ 9	\$ 475	\$ 2,389	\$ 2,671	\$ 2,805	\$ 2,862	\$ 2,919	\$ 2,977	\$ 3,037
Total direct costs	\$ -	\$ 9	\$ 475	\$ 2,389	\$ 2,671	\$ 2,805	\$ 2,862	\$ 2,919	\$ 2,977	\$ 3,037
Gross profit	\$ -	\$ 79	\$ 451	\$ 3,195	\$ 8,852	\$ 11,274	\$ 11,686	\$ 11,920	\$ 12,158	\$ 12,401
<i>GP margin</i>	-	90%	49%	57%	77%	80%	80%	80%	80%	80%
Total G&A costs	\$ 180	\$ 372	\$ 728	\$ 2,033	\$ 2,337	\$ 2,420	\$ 2,468	\$ 2,518	\$ 2,568	\$ 2,620
Total G&A expenses	\$ 180	\$ 372	\$ 728	\$ 2,033	\$ 2,337	\$ 2,420	\$ 2,468	\$ 2,518	\$ 2,568	\$ 2,620
EBITDA	(\$ 180)	(\$ 293)	(\$ 277)	\$ 1,162	\$ 6,516	\$ 8,854	\$ 9,218	\$ 9,402	\$ 9,590	\$ 9,782
<i>EBITDA margin</i>	-	(331%)	(30%)	21%	57%	63%	63%	63%	63%	63%
Depreciation	\$ -	(\$ 11)	(\$ 238)	(\$ 793)	(\$ 793)	(\$ 773)	(\$ 710)	(\$ 710)	(\$ 710)	(\$ 710)
EBIT	(\$ 180)	(\$ 303)	(\$ 515)	\$ 369	\$ 5,722	\$ 8,082	\$ 8,508	\$ 8,692	\$ 8,880	\$ 9,072
Interest expense	\$ -	(\$ 28)	(\$ 601)	(\$ 2,328)	(\$ 2,360)	(\$ 2,031)	(\$ 1,545)	(\$ 1,266)	(\$ 974)	(\$ 666)
EBT	(\$ 180)	(\$ 331)	(\$ 1,116)	(\$ 1,960)	\$ 3,362	\$ 6,051	\$ 6,962	\$ 7,426	\$ 7,906	\$ 8,406
Tax	\$ -	(\$ 19)	(\$ 92)	(\$ 121)	(\$ 1,038)	(\$ 1,837)	(\$ 2,102)	(\$ 2,232)	(\$ 2,372)	(\$ 2,522)
Net profit	(\$ 180)	(\$ 350)	(\$ 1,208)	(\$ 2,080)	\$ 2,324	\$ 4,214	\$ 4,860	\$ 5,194	\$ 5,534	\$ 5,884

The Company's net assets are projected to increase from USD 0.8 mn in FY23 to USD 44.8 mn in 2032

Balance sheet (USD '000)

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Non- current assets										
Plant and machinery closing balance	\$ -	\$ 11,603	\$ 23,761	\$ 23,163	\$ 22,565	\$ 21,968	\$ 21,370	\$ 20,772	\$ 20,174	\$ 19,577
Land	\$ -	\$ 4,602	\$ 4,602	\$ 4,602	\$ 4,602	\$ 4,602	\$ 4,602	\$ 4,602	\$ 4,602	\$ 4,602
Ecofrost Closing balance	\$ -	\$ 642	\$ 1,611	\$ 1,517	\$ 1,423	\$ 1,330	\$ 1,236	\$ 1,143	\$ 1,049	\$ 955
Trucks Closing balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Furniture and fittings Closing balance	\$ -	\$ -	\$ 145	\$ 127	\$ 108	\$ 89	\$ 70	\$ 52	\$ 33	\$ 14
WMS and IT equipment Closing balance	\$ -	\$ -	\$ 229	\$ 146	\$ 63	\$ -	\$ -	\$ -	\$ -	\$ -
Total non-current assets	\$ -	\$ 16,847	\$ 30,348	\$ 29,555	\$ 28,761	\$ 27,989	\$ 27,279	\$ 26,569	\$ 25,859	\$ 25,148
Current assets										
Trade debtors	\$ -	\$ 17	\$ 229	\$ 825	\$ 1,598	\$ 1,705	\$ 1,763	\$ 1,798	\$ 1,834	\$ 1,870
Closing cash balance	\$ 820	\$ 2,230	\$ 4,959	\$ 6,015	\$ 6,082	\$ 5,884	\$ 8,283	\$ 11,213	\$ 14,454	\$ 17,737
Total current assets	\$ 820	\$ 2,248	\$ 5,188	\$ 6,841	\$ 7,680	\$ 7,589	\$ 10,045	\$ 13,011	\$ 16,289	\$ 19,608
Total assets	\$ 820	\$ 19,094	\$ 35,536	\$ 36,396	\$ 36,441	\$ 35,577	\$ 37,324	\$ 39,580	\$ 42,147	\$ 44,756
Liabilities										
Debt balance	\$ -	\$ 5,000	\$ 21,367	\$ 24,265	\$ 21,971	\$ 16,890	\$ 13,773	\$ 10,831	\$ 7,860	\$ 4,581
Trade creditors	\$ -	\$ 13	\$ 105	\$ 146	\$ 162	\$ 166	\$ 169	\$ 173	\$ 176	\$ 180
Total liabilities	\$ -	\$ 5,013	\$ 21,472	\$ 24,411	\$ 22,133	\$ 17,056	\$ 13,942	\$ 11,004	\$ 8,037	\$ 4,761
Equity										
Share capital closing balance	\$ 1,000	\$ 14,612	\$ 15,803	\$ 15,803	\$ 15,803	\$ 15,803	\$ 15,803	\$ 15,803	\$ 15,803	\$ 15,803
Retained earnings	(\$ 180)	(\$ 530)	(\$ 1,739)	(\$ 3,819)	(\$ 1,495)	\$ 2,718	\$ 7,579	\$ 12,773	\$ 18,307	\$ 24,192
Total equity	\$ 820	\$ 14,082	\$ 14,065	\$ 11,984	\$ 14,308	\$ 18,522	\$ 23,382	\$ 28,576	\$ 34,111	\$ 39,995
Equity and liabilities	\$ 820	\$ 19,094	\$ 35,536	\$ 36,396	\$ 36,441	\$ 35,577	\$ 37,324	\$ 39,580	\$ 42,147	\$ 44,756

The Company is projected to be in a positive net cash position across the forecast period.

Cash flow statement (USD '000)

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Cash from operating activities										
EBITDA	(\$ 180)	(\$ 293)	(\$ 277)	\$ 1,162	\$ 6,516	\$ 8,854	\$ 9,218	\$ 9,402	\$ 9,590	\$ 9,782
Tax	\$ -	(\$ 19)	(\$ 92)	(\$ 121)	(\$ 1,038)	(\$ 1,837)	(\$ 2,102)	(\$ 2,232)	(\$ 2,372)	(\$ 2,522)
Working capital changes	\$ -	(\$ 5)	(\$ 120)	(\$ 555)	(\$ 758)	(\$ 102)	(\$ 55)	(\$ 32)	(\$ 33)	(\$ 32)
Cash from operating activities	(\$ 180)	(\$ 316)	(\$ 489)	\$ 487	\$ 4,720	\$ 6,915	\$ 7,061	\$ 7,138	\$ 7,186	\$ 7,228
Cash from investing activities										
Plant and machinery capex	\$ -	\$ 11,290	\$ 11,290	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land acquisition	\$ -	\$ 4,602	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Motor vehicles capex	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Furniture and fittings capex	\$ -	\$ -	\$ 150	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WMS and IT equipment capex	\$ -	\$ -	\$ 250	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ecofrost capex	\$ -	\$ 652	\$ 1,032	\$ -	\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 0
Cash from investing activities	\$ -	\$ 16,545	\$ 12,723	\$ -	\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 0
Cash from financing activities										
Debt drawdowns	\$ -	\$ 4,659	\$ 14,837	\$ 1,623	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ -
Shares issued construction	\$ -	\$ 13,237	\$ -	\$ 0	\$ 0	\$ 0	\$ -	\$ -	\$ -	\$ -
Shares issued WC	\$ 1,000	\$ -	\$ 1,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Shares issued - Ecofrost	\$ -	\$ 125	\$ 191	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ecozen WC shares issued	\$ -	\$ 250	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Shares issued - additional capex	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total drawdowns	\$ 1,000	\$ 18,272	\$ 16,028	\$ 1,623	\$ 0	\$ 0	\$ -	\$ -	\$ -	\$ -
Cash flow available for debt	\$ 820	\$ 1,410	\$ 2,817	\$ 2,110	\$ 4,720	\$ 6,915	\$ 7,061	\$ 7,138	\$ 7,186	\$ 7,228
Interest paid	\$ -	\$ -	\$ 34	\$ 706	\$ 2,360	\$ 2,031	\$ 1,545	\$ 1,266	\$ 974	\$ 666
Principal repayment	\$ -	\$ -	\$ 54	\$ 348	\$ 2,293	\$ 5,082	\$ 3,117	\$ 2,942	\$ 2,971	\$ 3,279
Total financing costs	\$ -	\$ -	\$ 88	\$ 1,054	\$ 4,654	\$ 7,112	\$ 4,662	\$ 4,208	\$ 3,945	\$ 3,945
Cash added/used in period	\$ 820	\$ 1,410	\$ 2,729	\$ 1,056	\$ 66	(\$ 198)	\$ 2,399	\$ 2,930	\$ 3,241	\$ 3,283
Opening cash balance	\$ -	\$ 820	\$ 2,230	\$ 4,959	\$ 6,015	\$ 6,082	\$ 5,884	\$ 8,283	\$ 11,213	\$ 14,454
Cash movement	\$ 820	\$ 1,410	\$ 2,729	\$ 1,056	\$ 66	(\$ 198)	\$ 2,399	\$ 2,930	\$ 3,241	\$ 3,283
Closing cash balance	\$ 820	\$ 2,230	\$ 4,959	\$ 6,015	\$ 6,082	\$ 5,884	\$ 8,283	\$ 11,213	\$ 14,454	\$ 17,737

Total capital contribution from ARCH and Meydan for Phase I is USD 12.6 mn and USD 3.2 mn, respectively. The Investments are expected to generate a 23.7% IRR.

Financing and investment costs		ARCH Equity 80%		Meydan 20%		Debt		Total project cost	
Phase I	Dar	\$	12,190	\$	3,047	\$	19,856	\$	35,093
	Ecozen	\$	453	\$	113	\$	1,263	\$	1,829
Total invested amounts		\$	12,643	\$	3,161	\$	21,119	\$	36,923

Projects cost breakdown (USD '000)	Phase I			Total
	Dar	Ecozen		
Construction costs	\$ 20,931	\$ -		\$ 20,931
Land acquisition cost	\$ 3,753	\$ -		\$ 3,753
Land enabling works	\$ 850	\$ -		\$ 850
Furniture and fittings,WMS, TMS, etc	\$ 400	\$ -		\$ 400
Consultant costs	\$ 1,000	\$ -		\$ 1,000
Services fees	\$ 650	\$ -		\$ 650
Construction contingency	\$ 2,069	\$ -		\$ 2,069
Financing fees (capitalised interest and upfront fee)	\$ 3,442	\$ -		\$ 3,442
Total project cost excluding working capital	\$ 33,093	\$ -		\$ 33,093
Ecofrost	\$ -	\$ 1,579		\$ 1,579
Working capital	\$ 2,000	\$ 250		\$ 2,250
Total	\$ 35,093	\$ 1,829		\$ 36,923

Returns

NPV	\$22,154	USD '000
IRR	23.7%	%
Return on equity	18.2%	%
Return on investment	13.1%	%

Appendix



Market survey

Date	Meeting	Key takeaways
25 April 2022	<ul style="list-style-type: none"> ▪ Daud Seauton, Dar 	<ul style="list-style-type: none"> ▪ Have historically bought livestock from auctions, largely in the Central Region - have to ferry the livestock to Nairobi (live) for slaughter and export as cold chain in non-existent in Dar ▪ Are limited in volumes they can export owing to lack of cold storage capacity
25 April 2022	<ul style="list-style-type: none"> ▪ JD Pharmacy, Dar 	<ul style="list-style-type: none"> ▪ Targeting Soth African frozen fruits and vegetables market - would require a cold truck to ferry from South Africa to Tanzania ▪ Happy to focus on key operations and outsource the logistics side of the business completely
27 April 2022	<ul style="list-style-type: none"> ▪ Cilantro Fruits and Vegetables 	<ul style="list-style-type: none"> ▪ Would be happy to outsource transport of their fresh produce ▪ Zanzibar would present a huge opportunity for us owing to the large number of hotels and imports ▪ Large scale distributors such as Masifio would also be an ideal customer
28 April 2022	<ul style="list-style-type: none"> ▪ Abacus Pharmaceuticals 	<ul style="list-style-type: none"> ▪ Are open to discussions with a 3PL upon on taking over their storage and distribution requirements.
21 March 2023	<ul style="list-style-type: none"> ▪ Ministry of Health 	<ul style="list-style-type: none"> ▪ In line with the National Industrialisation Agenda (2025), the Government of Tanzania is keen on promoting pharmaceutical manufacturing. 86% of Tanzania's medicines are imported (\$ 201 million) ▪ There are opportunities along the pharmaceutical manufacturing value chain including in the provision of cold storage services
21 March 2023	<ul style="list-style-type: none"> ▪ Director of Crop Development - Ministry of Agriculture 	<ul style="list-style-type: none"> ▪ 61% of the national labour force is employed in the agriculture industry which contributes 6.8% p.a. to the GDP with a target of growing this to 10% by 2030 ▪ Tanzania has 42 mn ha of arable land but only 24.5% is being cultivated (10.8 mn) ▪ There has been increased budgetary allocation to the Ministry of Agriculture in Tanzania (2021/22 – USD 108 mn; 2022/23 – USD 214 mn) ▪ Tanzania's Government has committed to increase the size of arable land under irrigation to 2 mn ha by 2030 ▪ One of the key priority areas in the agriculture sectors is post-harvest losses (PHL) management with a target of reducing this from 35% to 5% by 2030 ▪ PHL are largely in Central Tanzania (Iringa) and to the north (Kilimanjaro region where most of the produce comes from.

Market survey

Date	Meeting	Key takeaways
24 March 2023	<ul style="list-style-type: none"> ▪ H.E Dr. Hussein Ali Mwinyi - President, Republic of Zanzibar 	<ul style="list-style-type: none"> ▪ Development of cold chain will be critical to realising the Government's Blue Economy Agenda ▪ There is a lot of loss in the fishing industry largely on account of lack of proper cold storage hence the proposed investment is key to addressing this ▪ The Government through Zanzibar Investment Promotion Authority (ZIPA) remains keen to promote and facilitate investments in Zanzibar and will be willing to offer fiscal and non-fiscal incentives to potential investors ▪ ZIPA is a one-stop shop which streamlines all the processes and registration requirements for potential investors ▪ The Government is keen on promoting sustainable investing to ensure optimum utilisation of resources
21 March 2023	<ul style="list-style-type: none"> ▪ H.E. Othman Masoud Othman - First Vice President 	<ul style="list-style-type: none"> ▪ The proposed investment will support the growing number of hotels and real estate establishments in Zanzibar ▪ The investment will also be a key enabler of the Government's Blue Economy agenda ▪ ARCH's commitment to sustainable investing is a welcome directive and aligns to the Government's Green Legacy Programme



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