



HM Government

# Growth Gateway: Trade & investment opportunities in North and West African Horticulture

Knowledge products – April 2023

# List of knowledge products developed by GG NW Africa horti intervention

- A **Landscape of horti in North & West Africa** with view of most important value chains and markets, and current shape
- B **Cold Chain opportunity assessment** incl. opportunity size, view of key players and UK position, and deep-dive of high potential opportunities in Nigeria, Morocco and Ghana
- C **Financing opportunity assessment** incl. opportunity size, view of key players and UK position, and deep-dive of high potential opportunities in Nigeria, Morocco and Ghana
- D **Short-list of prioritised UK businesses/investors and African businesses** relevant for high-potential opportunities, with contact details and record of engagement and interest to date
- E **Emerging view of high potential matching opportunities** within Financing and Cold Chain for focus countries
- F **Information packs for UK and African businesses** overviewing the Financing and Cold Chain opportunity in focus countries
- G **Overview of high-impact solutions** for HMG to implement to unlock Cold Chain and Financing opportunities

# These new products are complementary to existing GG and HMG efforts

Knowledge product	Complementary value-add
<b>A</b> Landscape of horti in North & West Africa	<u>UK businesses</u> : bridge info gaps on the landscape <u>Central GG</u> : contribute to regional/sectoral knowledge pool <u>Posts</u> : help educate UK audience on the regional horti landscape; bridge info gaps when engaging with African stakeholders
<b>B</b> Cold Chain opportunity assessment	<u>UK businesses/investors</u> : bridge info gaps on the opportunity and right product/offering-market <u>Central GG</u> : connect opportunities with other interventions
<b>C</b> Financing opportunity assessment	<u>Posts</u> : help educate UK audience on high-potential opportunities; bridge info gaps when engaging with African stakeholders
<b>D</b> Short-list of prioritised UK businesses/investors and African businesses	<u>Central GG, Posts</u> : allows to focus efforts on high-potential businesses to engage with, possibly beyond this intervention; collates contact information for each of reach; tracks interest expressed to support with deal closure
<b>E</b> Emerging view of high potential matching opportunities	<u>Central GG, Posts</u> : support in turning high potential opportunities into actual deals; help prioritise engagements with UK and African businesses
<b>F</b> Information packs for UK and North & West African businesses	<u>UK businesses</u> : bridge info gap on high potential opportunities; showcases UK players that have 'won' <u>North &amp; West African businesses</u> : bridge info gap on high potential opportunities; showcases UK's competitive offering <u>Posts</u> : bridge info gap
<b>G</b> Overview of high-impact solutions	<u>FCDO</u> : bridge info gap on challenges faced by UK and African stakeholders <u>HMG generally</u> : suggest short- and medium-term solutions to bridge challenges and unlock additional opportunities



# Landscape of horticulture in North & West Africa

# Definition | Horticulture crops covered include...

Note: Horticulture sometimes limited to plants that flower and harvest within 1 year and excluding trees, however, experts highlight a majority of produce in Africa that are traded with UK / EU are considered horticulture would fall outside scope, and so advise adopting an inclusive definition  
Source: Expert interview; BCG

## Included produce types

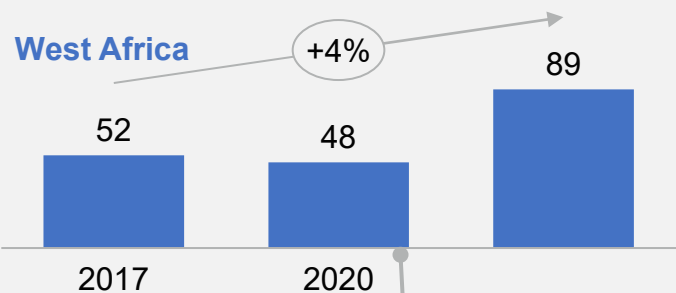
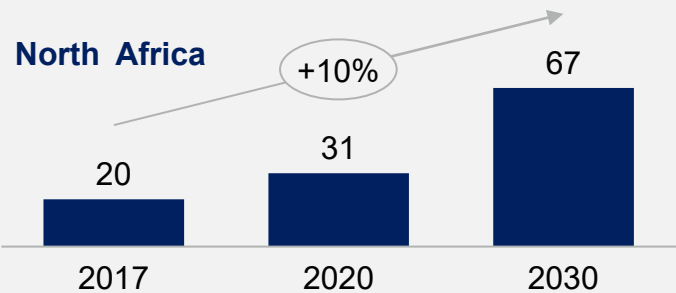
- ✓ Vegetables (*e.g., plantain, yam, cassava, ginger, potatoes, sweet potatoes*)
- ✓ Fresh fruits
- ✓ Nuts
- ✓ Tea
- ✓ Coffee
- ✓ Flowers
- ✓ Green herbs
- ✓ Spices
- ✓ Seeds
- ✓ Tree plants (*e.g. cocoa, olives*)

## Excluded produce types

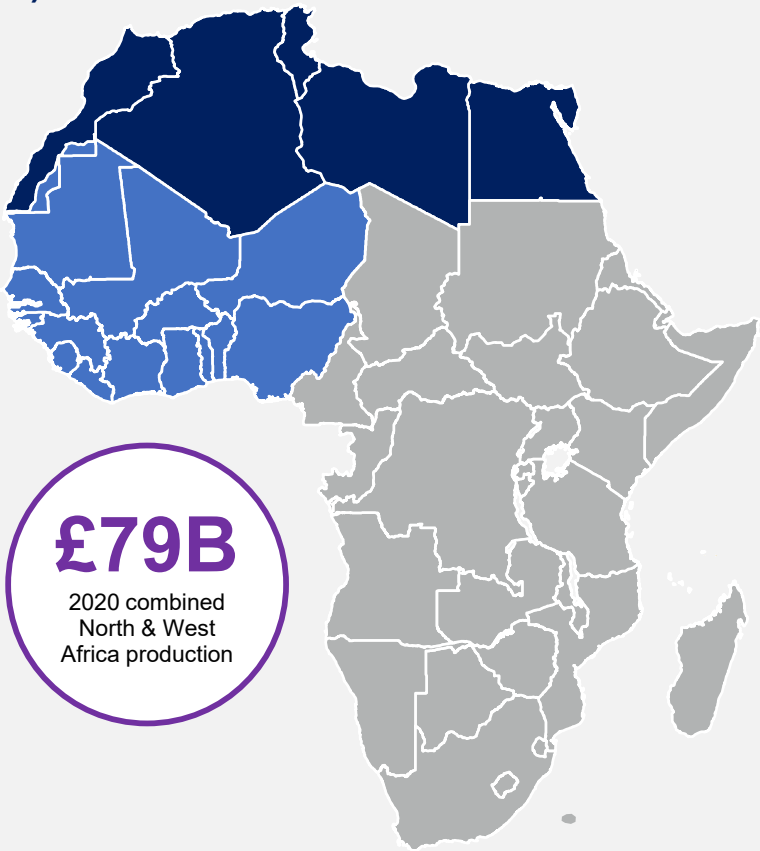
- ✗ Grains, grass (*e.g. sugar cane*)
- ✗ Cereals
- ✗ Beans
- ✗ Peas (*e.g., chickpeas*)

# Overview: Horticulture in North & West Africa is large, diverse, and growing

North & West Africa Horticulture production (£B)



Production decreases mainly in Sahel countries due to unfavourable rainfall patterns and insecurity



Benchmarks of other horticulture markets demonstrate opportunity materiality



**~£62B**  
USA



**~38B**  
INDONESIA



**~112B**  
INDIA



**~26B**  
BRAZIL



**~6B**  
S. AFRICA



**~24B**  
SPAIN

Note: continental market CAGR of 6.65% used for 2030 forecast – to be validated; USD:GDP ex. rate (0.82); market refers to horticulture produce, does not include supporting ecosystem products & services. 1. 2020 data 2. includes Morocco, Egypt, Tunisia and Algeria – data for Libya unavailable  
Source: FAO; AgriBusiness Global; Ministry of Agriculture, Government of India; Carec institute; NASS; [Fews Net](#); BCG analysis



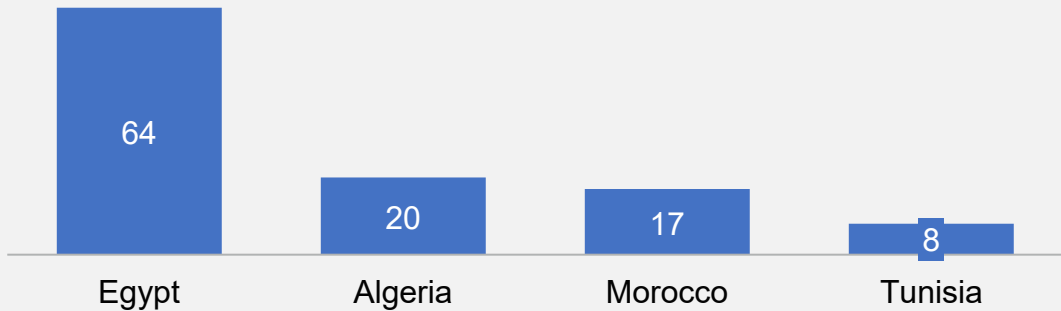
# North Africa: focuses on domestic consumption, with Egypt as the largest producer

Horticulture landscape key facts

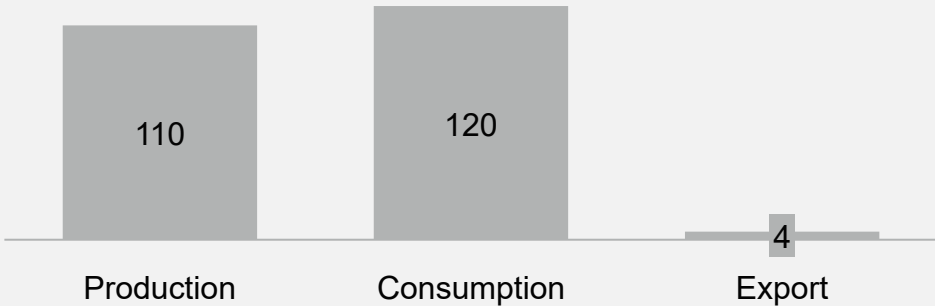
1 Production Value (2020; £B)



2 Largest Producing Countries (2020 production; M tonnes)



3 Production Volume (2020; M tonnes)



4 Most Produced Crops (2020 production; £B)



Note: All data provided for 2020. Volumes for consumption and export are extrapolated using data for production (£1B = 3.43M tonnes produced). Other category includes: bananas, sugar cane, tangerines, chillies, sugar beet, green garlic, eggplants, other vegetables, strawberries, carrots and turnips, pears, pumpkins, lemons, limes, cabbages, cantaloupes, figs, apricots, cauliflowers, cucumbers, artichokes, avocados, plums, sweet potatoes, okra etc.  
Source: FAO databank (2020)

# Production: Dominated by Egypt & Algeria



Top countries by production size & volume - 2020

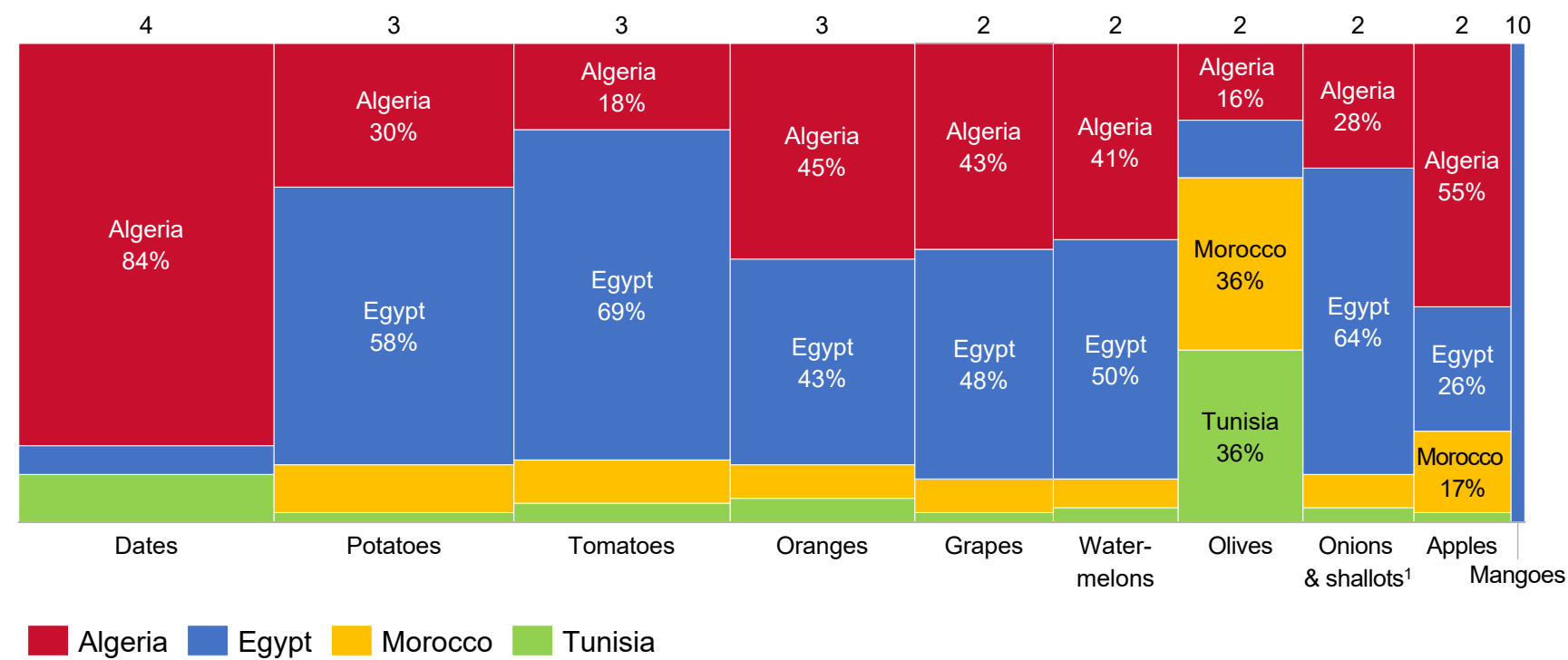
Country	Market size <sup>1</sup>	Prod. value (£B)	Prod. value (M tonnes)	Import value (£B)	Export value (£B)	Local Cons. (£B)
Egypt	14.9	15.1	88	2.0	1.8	15.3
Algeria	11.8	11.7	25	0.3	0.4	11.6
Morocco	2.6	3.2	21	1.4	0.7	3.9
Tunisia	1.0	2.1	10	1.3	0.2	3.2
Total	30.3	32.1	144	5	3.1	34

- Together, **Egypt and Algeria** contribute **over 80%** of total production in the region
- Across **all countries** in the region, most production is for **domestic** use; **less than 10%** horti products are **exported**
- **International exports** have been **steadily increasing** – especially from Morocco (15%<sup>2</sup>) and Egypt (11%)

1. Market size calculated = total production value + (total exports – total imports) 2. Total market size for Egypt, Algeria, Morocco & Tunisia only  
Note: North Africa excludes Libya as no comparable data was available  
Source: FAO; UN Comtrade; BCG analysis

# Production: Top-10 value chains comprise ~70% of total regional horti production

North African top 10 primary production value chains, 2020 (£B) – 70% total regional horti production



- Compared to W. Africa, the region has a **more diverse produce spread**, particularly of crops with European appeal
- Algeria (46%) and Egypt (36%)** are responsible for the majority of horti production in N. Africa
- Less than 5%** of all exported horti goods are **exported to the UK**; despite UK importing 45% of all agri products consumed

1. Onions and shallots dry (excluding dehydrated) 2. Mangoes, guavas, and mangosteens  
 Note: North Africa excludes Libya as no comparable data was available  
 Source: FAO; UN Comtrade; BCG analysis



# **Growth drivers: North African production is predicted to grow at 5% CAGR (through 2027) due to exports, gov't support & demographics**



## **Global trend to regionalise supply chains improve resilience and reduce carbon footprint driving demand for exports from N Africa**

- 'European Green Deal', will enhance preference for N. African imports over e.g. India, Brazil, Costa Rica due to geographical proximity
- Recent spikes in export demand (esp from EU), as countries regionalise supply chains to minimise environmental impact and tackle rising transport costs. Morocco alone saw 15% increase in agri exports (2020-21) to EU



## **Strengthening government support improving operations & cost advantage and driving farm commercialisation**

- Green Plan and ADF (Morocco) provide supportive policies & funding to modernize sector and attract FDI as well as subsidies
- Trade agreements have improved access to new markets
- Algeria's agriculture and rural renewal policy re-structuring sector towards intensive and large-scale farming
- Egypt Food Security programme secured \$271M ADB loan to provide incentives and support for farmers
- Targeted government incentives for private large scale farms to enhance competitiveness seeking to accelerate farm commercialisation & consolidation



## **Domestic and export consumption expanding with population growth & shifting consumer tastes towards organic / healthier foods**

- Population growing 2.5%pa<sup>1</sup>, increasing demand; diets dominated by vegetal foods (~89% of calories will stem from vegetal sources in 2027)
- Local consumers shifting to focus on a healthier lifestyle and eating habits, boosting demand for organic and health food categories
- Growing demand from big export demand centres as part of global trend towards healthier and fresher produce



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# Growth constraints: Climate change impact, export market access, post-harvest losses and limited credit are key challenges



## Climate change driving weather shifts and water shortages that impact productivity

- Shifting weather patterns have delayed optimal harvest times and are now misaligned with timing of international demand which dictates harvest period, causing farmers to harvest before productivity peaks
- Predominantly rain-dependent farming adversely impacted by water shortages and extreme evaporation (up to 20% water loss during summer months) as temperatures increase leading to yield declines esp among smallholders



## Despite strengthening export demand, toughening compliance restrictions are a growing trade barrier

- Some exports face EU quotas (e.g. for tomatoes in Europe);
- Proliferating number of standards to meet are increasing the complexity of food and other quality control standards (especially post Brexit)



## Post-harvest losses remain a key challenge in several value chains and driving shortages against local demand

- Significant proportion of produce lost due to lack of access to storage and processing - 68% of yield losses occur due to lack of cold chain, heat exposure, and inefficient marketing
- This is prompting increasing import dependence for basic foods (60% of consumption) and local producers increasingly struggle to remain competitive



## Limited access to affordable working capital & export finance

- Smallholders in particular (80% of production) unable to access export finance (either government or aid schemes or through commercial banks)
- Meanwhile, smallholders also struggle to access working capital, worsening recent situation where prices of key inputs (seeds, fertilisers) have spiked in connection with supply chain bottlenecks (COVID, Russia-Ukraine war)



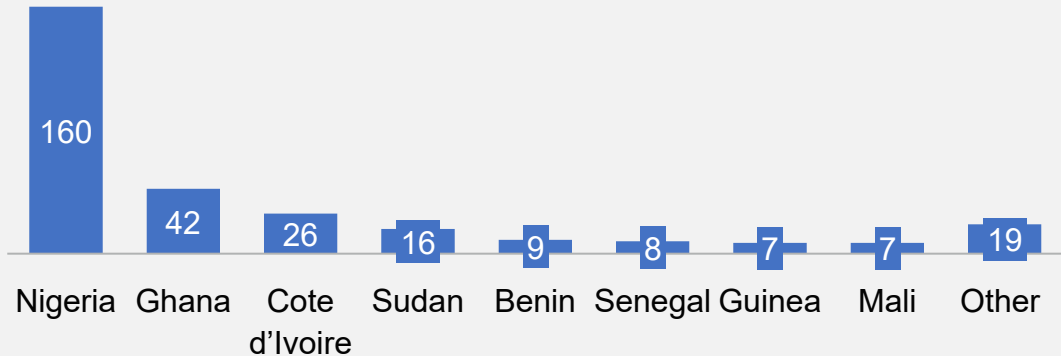
# West Africa is a domestic consumption-focused market

## Horticulture landscape key facts

1 Production Value (2020; £B)



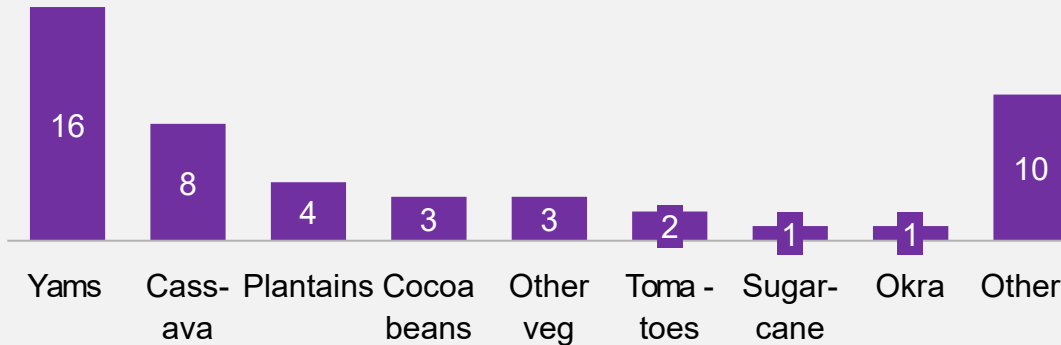
2 Largest Producing Countries (2020 production; M tonnes)



3 Production Volume (2020; M tonnes)

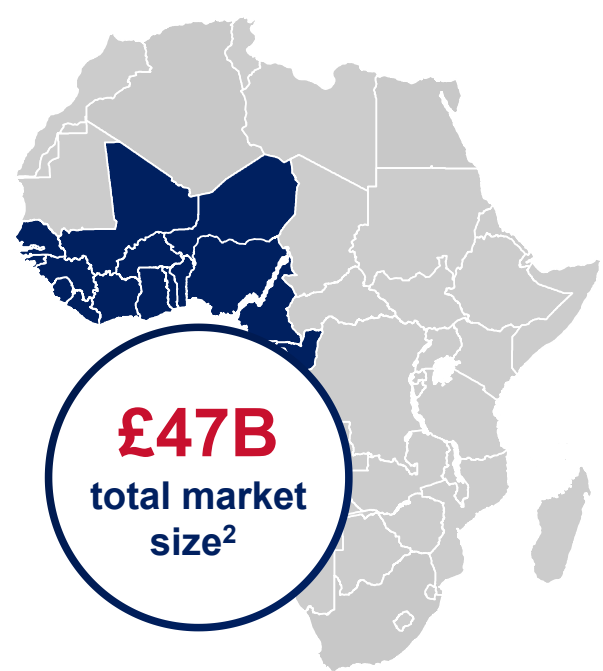


4 Most Produced Crops (2020 production; £B)



Note: All data provided for 2020. Volumes for consumption and export are extrapolated using data for production (£1B = 3.43M tonnes produced) 1. Other category includes: oil palm fruit, chillies,<sup>11</sup> seed cotton, watermelons, sweet potato, potatoes, citrus fruit, pineapples, mangos, bananas, cabbages, onions, oranges, onions., sesame seed, sugar cane, ginger, coffee, etc.  
Source: FAO databank (2020); BCG analysis

# Production: Nigeria, Ghana, and Cote d'Ivoire are main producers



Top countries by production size & volume (£B) - 2020

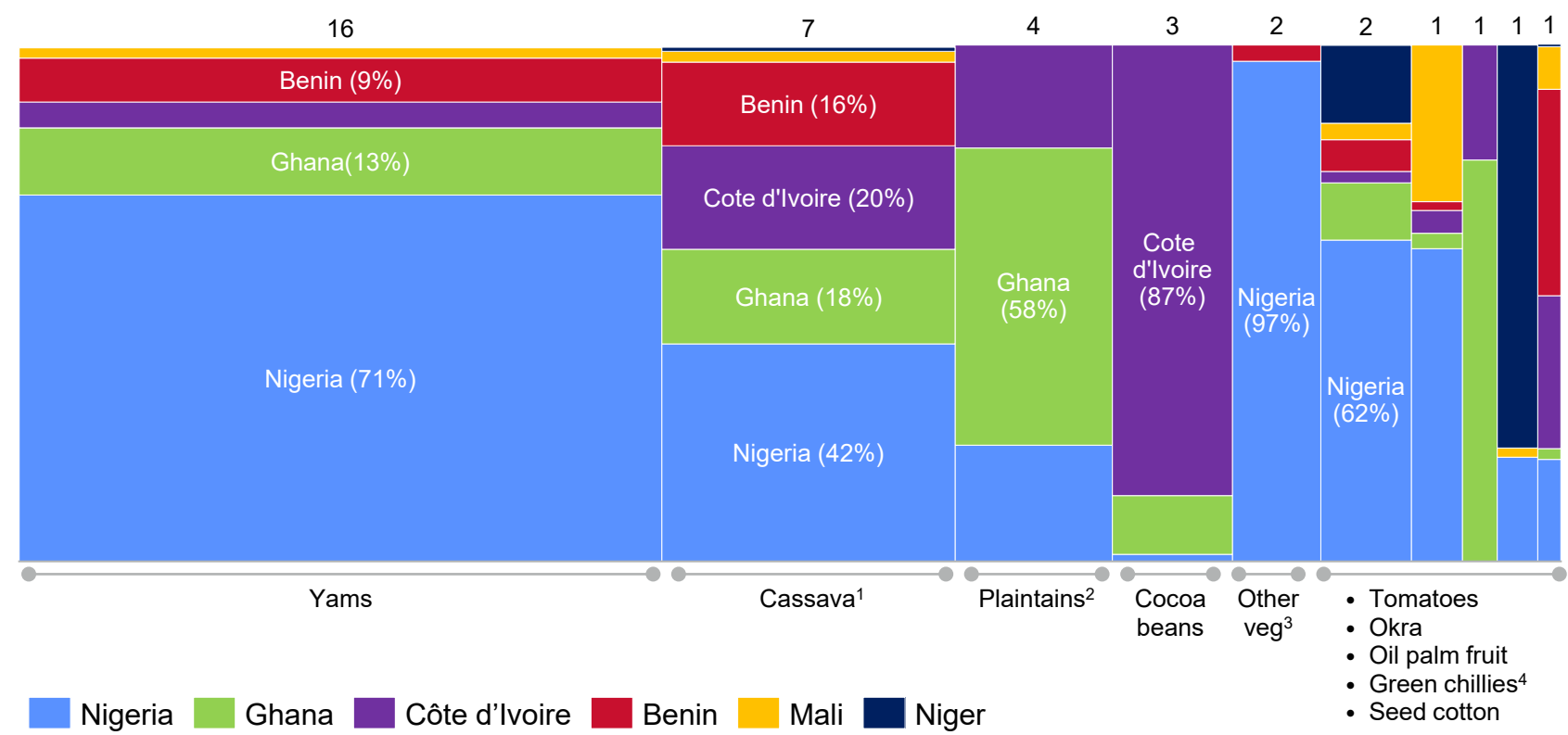
Country	Market size <sup>1</sup>	Product'n value (£B)	Product'n value (M tonnes)	Import value (£B)	Export value (£B)	Local consumption (£B)
Nigeria	22.1	22.3	161	0.4	0.2	22.5
Ghana	7.4	7.3	42	0.1	0.2	7.2
Côte d'Ivoire	6.4	6.9	26	0.6	0.1	7.4
Benin	2.7	3.0	20	0.3	0.0	3.3
Mali	2.4	2.4	7	0.1	0.1	2.4
Niger	2.2	2.3	6	0.1	0.1	2.3
Other	4.1	3.9	12	1.6	1.8	3.7
Total	47.4	48.0	265	3.3	2.7	48.6

- **Nigeria dominates the region**, producing 46% of all horticulture produce
- Nigeria, **Ghana and Cote d'Ivoire** present the greatest **opportunities** for investment, based on size
- At a regional level, **only 6% of local produce is exported**; with imports being just as low

1. Market size calculated = total production value + (total exports – total imports) 2. Total market size for following countries: Nigeria, Ghana, Cote d'Ivoire, Benin, Mali, Niger, Senegal, Togo, Sierra Leone, Guinea, Burkina Faso, Guinea-Bissau, Cabo Verde, Gambia  
Source: FAO; UN Comtrade; BCG analysis

# Production: W. Africa's top 10 value chains comprise ~60% of all horti production

West African top 10 primary production value chains, 2020 (£B) – top 60% of all value chains



- **Root tubers** dominate W. African production which are mainly for **domestic consumption** - of which **yam is 30%** of overall production
- The rest of top value chains are **cash crops** mainly focused on **exports** e.g. cocoa, oil palm, seed cotton
- **International exports** have been **steadily increasing** – especially from Nigeria (11%<sup>2</sup>) and Ghana (9%)

1. Fresh 2. Plantains and cooking bananas 3. Other fresh vegetables, not categorised elsewhere based on FAO data bank 4. Green chillies and peppers 5. Seed cotton (unlined)  
Source: FAO-2020 data; BCG analysis

# Growth drivers: West African production is predicted to grow at 5% CAGR (through 2027), due to increased demand



## Demographic trends driving growth in demand especially for fresh fruit & vegetables, and for semi-processed "convenience foods"

- Population growing 2.9% p.a. and increasing demand...
- ...meanwhile expanding middle class with preference for fresher, healthier fresher foods (number of middle class Africans has tripled since 1990) driving horticulture crop demand
- Growing cost of imports due to turning to domestic as more price competitive
- Urbanisation driving demand for semi-processed convenience goods (e.g. yam flour)



## Improving export market access to and increased demand for West African traditional crops / processed foods from key demand centres

- Critical trade barriers removed or reduced (e.g. In Jan 2023 nearly all trade barriers for Nigeria – UK trade removed)
- Proliferation of preferential trade agreements that improve competitiveness on export markets and increase trade (e.g. Economic Partnership Agreement with EU; AfCFTA; DCTS)
- Growing West African diaspora driving exports to major demand centres....
- ...while major demand centres increasingly demanding traditional west African produce / produce-based processed foods e.g. Cassava demand from China to manufacture starch, sweeteners, chemical & fermentation products; Plantain (chips) in USA & EU; cotton in USA)

# While climate change impact, export market access, post-harvest losses are key growth constraints



## Limited access to better quality seeds (mainly hybrids) leading to lower yields

- Limited supply and suppliers of hybrid seeds, who are often localized in urban areas, forcing 95% of smallholders (mainly rural) to use local seeds which have lower yield and output quality and have lesser demand



## Climate change-induced weather changes and limited adaptation & resilience measures leading to yield losses

- Intensifying extreme rainfall and heat events are leading to higher crop damage and yield losses, meanwhile smallholders lack knowledge and tools to adapt



## Toughening export compliance restrictions are a growing trade barrier while lack of export finance further stifles growth

- Cumbersome import/export standard requirements and product registration e.g. in Nigeria all exports must comply to standards set out by SON5 are challenging for the majority of farmers (smallholders) to satisfy
- Brexit increased the complexity of import food standards as no longer comply with consolidated EU regulations; creating an additional barrier to trade
- Export financing facilities for smallholders inexistent / inappropriate as lenders struggle to manage credit risk especially given lack of government-backed concessional funds or export finance initiatives



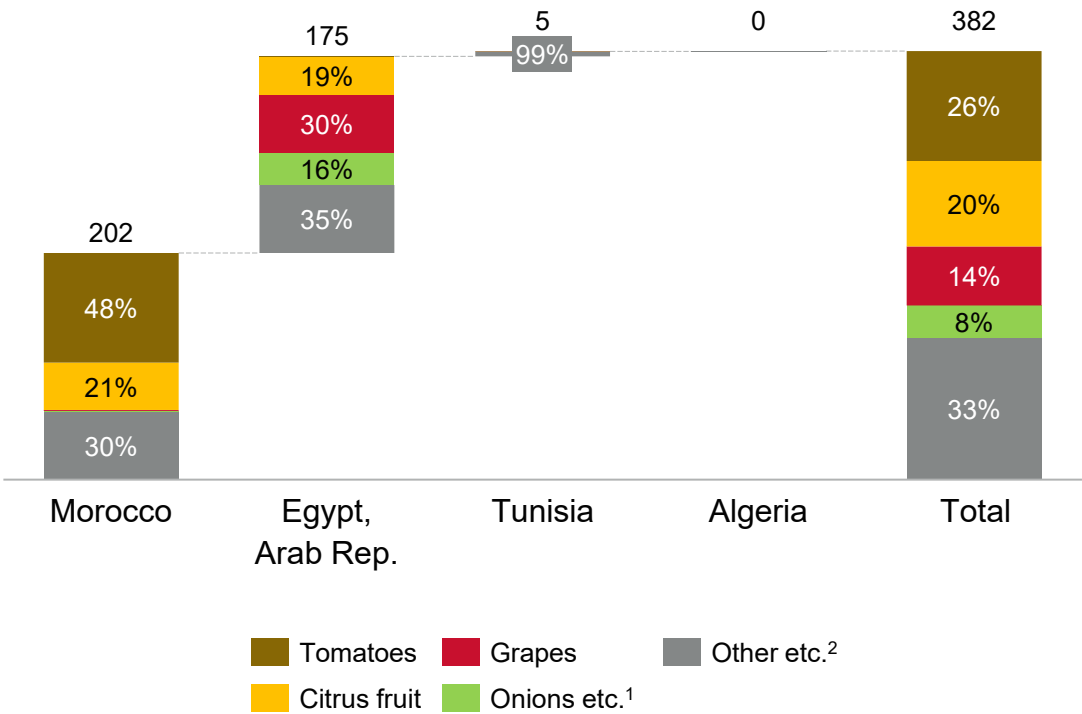
## Postharvest losses remain a key challenge in several value chains

- High post-yield losses due to inadequate packaging practices and lack of cold-chain for long transportation in hot conditions

# North Africa: Low UK imports compared to peers...

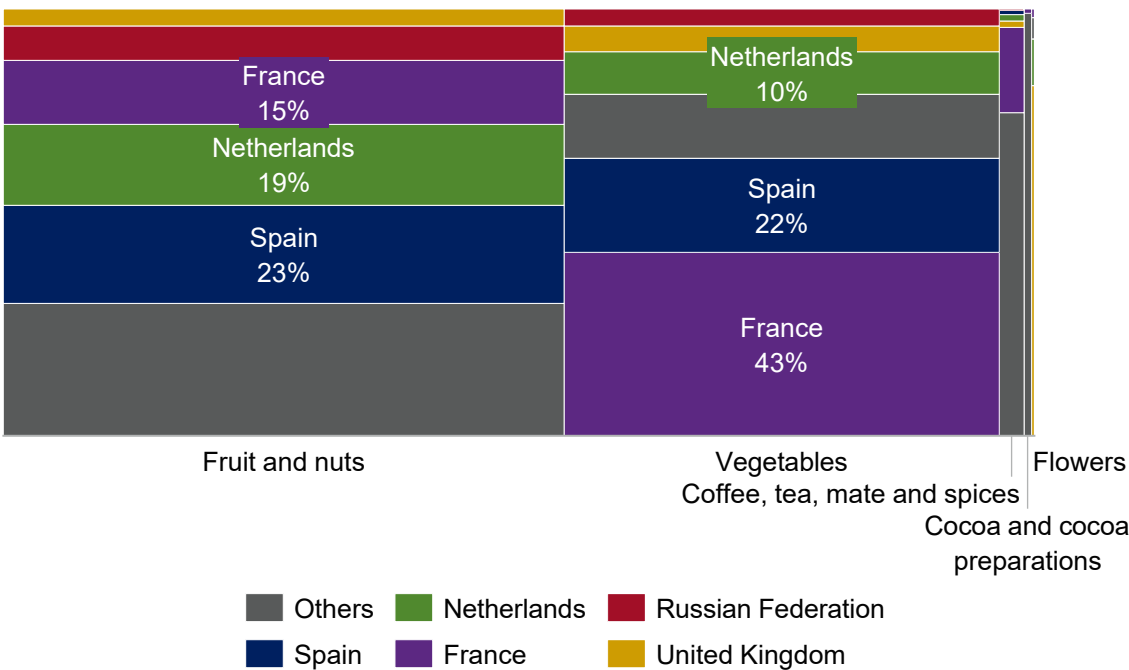
From all exports to the UK from North Africa, 25% are tomatoes from Morocco

Total UK imports from North Africa 2020 (£M)



Of UK's total horti imports of £11B, North Africa supplied only 3%, yet traded significant volumes with other UK trading partners

Destination of North African exports for top UK import products 2020 (£M)

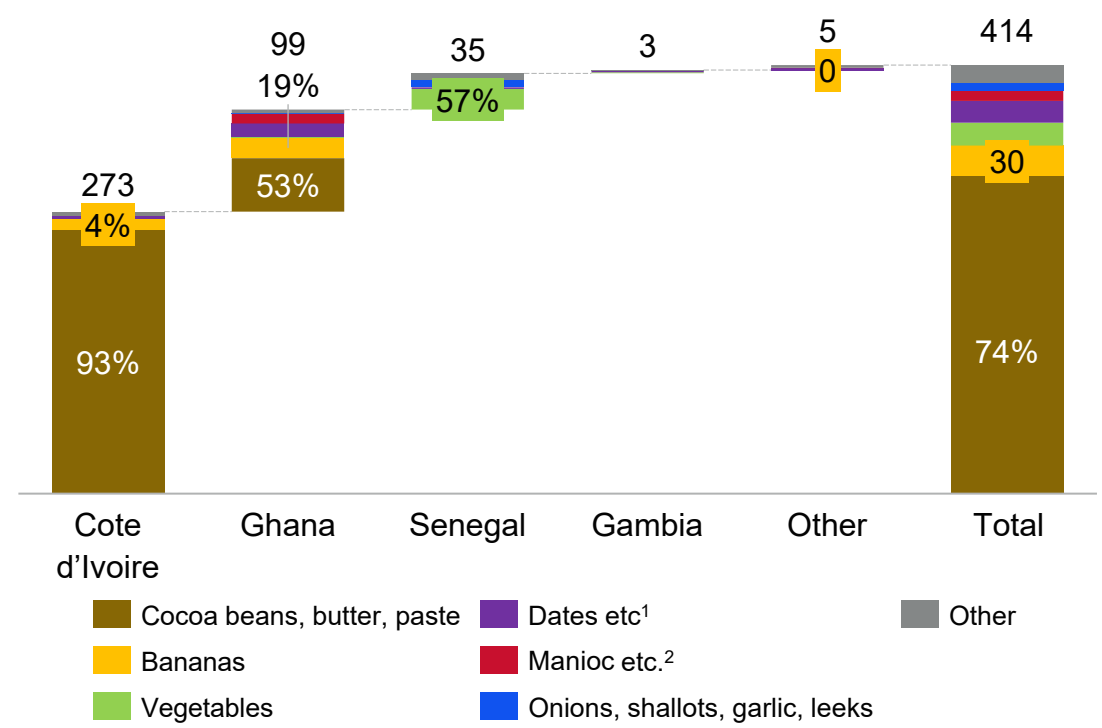


Note: Exchange rate used = 0.82; 1. Onion, shallots, garlic, leeks; 2020 used as this is most recent year with most complete available data for focus regions. North Africa data only includes Morocco and Tunisia, as other countries not have suitable and comparable data  
Source: FAOSTAT; UNCOMTRADE; FAO; UN Comtrade; BCG analysis

# West Africa: ... and similar picture observed in West also

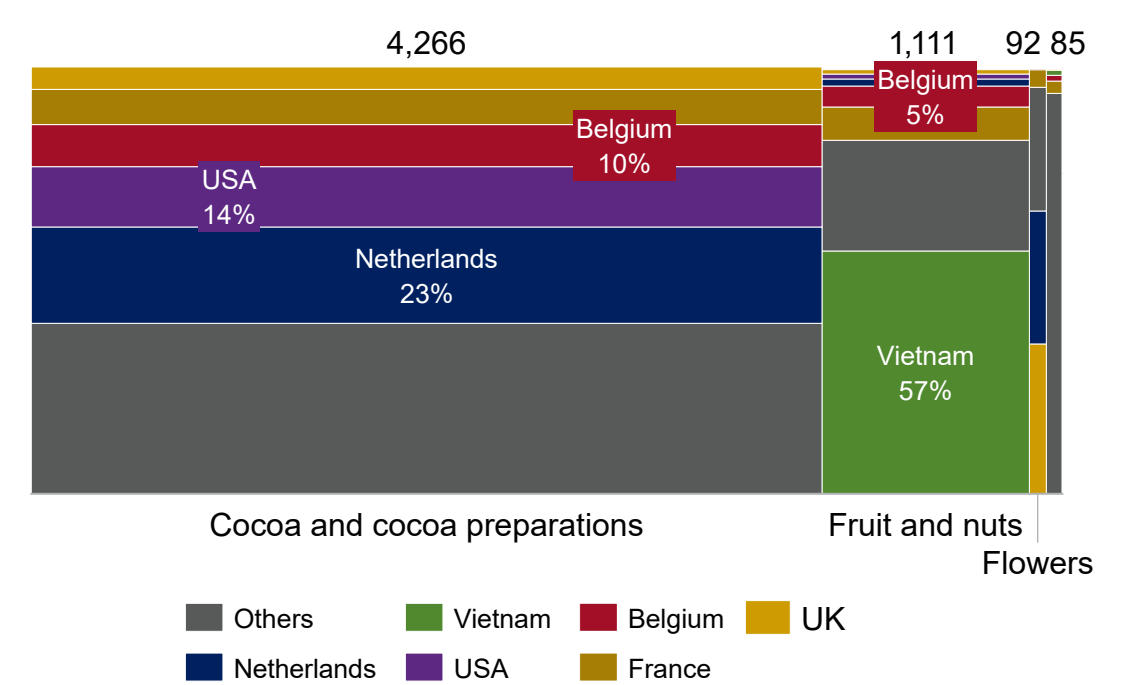
Cote d'Ivoire provides ~65% of all West African exports to the UK

Total UK imports from West Africa 2020 (£M)



Less than 4% of the UK's total imports are from W. Africa – this is significantly less than comparative countries

Destination of West African exports for top UK import products, £ million, 2020



Note: 2020 used as this is most recent year with most complete available data for focus regions. West Africa data only includes the following countries: Benin, Burkina Faso, Cote d'Ivoire, Mauritania, Niger, Senegal and Togo – data not available for other countries. Exchange rate used = 0.82; 1. Dates, figs, pineapples, avocados; 2. Manioc, arrowroot, salep, Jerusalem Source: FAOSTAT; UNCOMTRADE; BCG analysis



# Cold Chain opportunity assessment

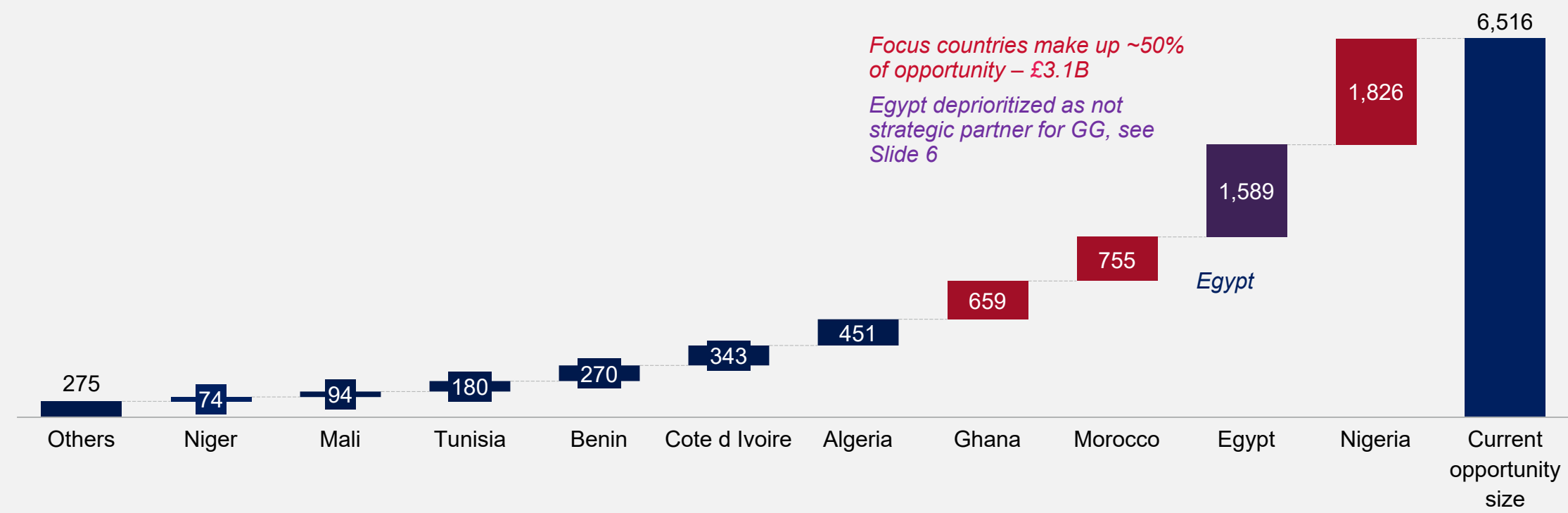
## **Four** questions to understand opportunity space in focus markets

- 1 What is the size of the opportunity in Nigeria, Morocco and Ghana?
- 2 Who are leading players and what is the UK's level of participation?
- 3 What challenges and/or market access barriers do UK players face in participating?
- 4 What are the opportunities identified in Nigeria, Morocco and Ghana?



# Cold chain opportunity in North & West Africa estimated to be worth £6.5B today; ~50% in focus geos

*Estimated total cold chain equipment and services size by country in North and West Africa<sup>1</sup> (£ M)*

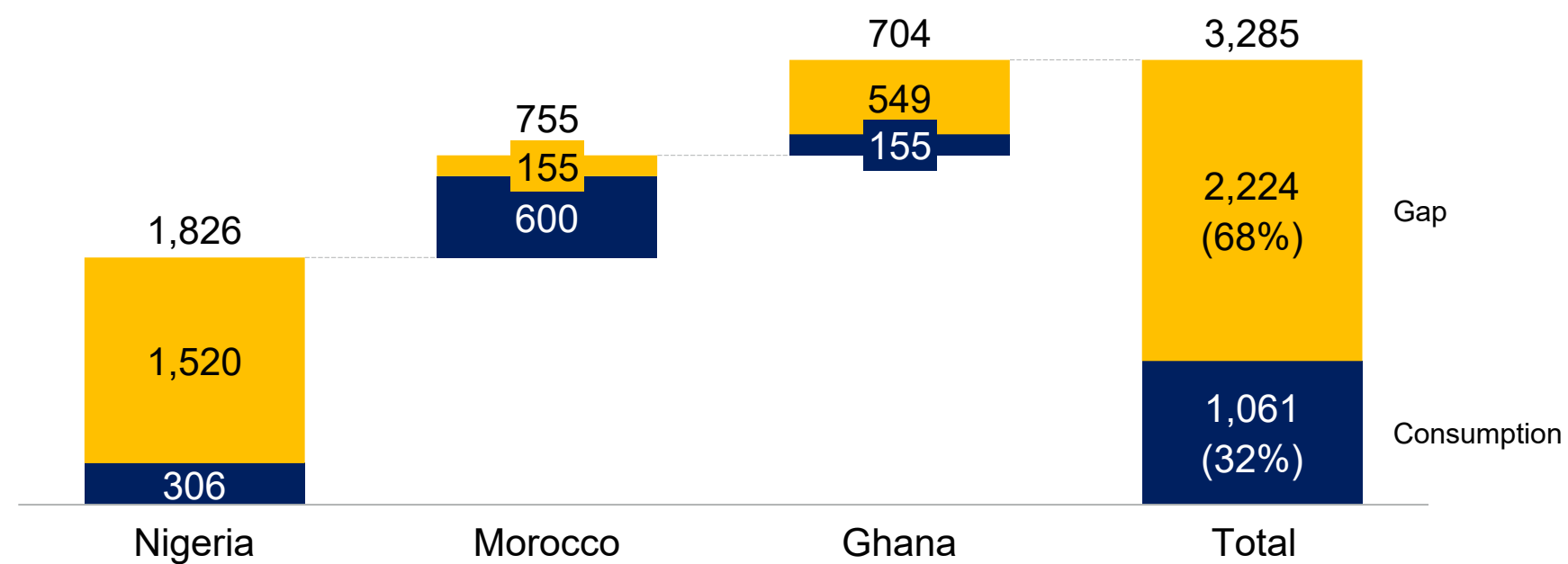


1. Estimated market size by benchmarking against Indian cold chain market size, and adjusted for key levers including: crop% requiring cold chain, % of small-holders, electricity access & production volumes Note: see "opportunity sizing" Excel for detailed assumptions behind each model. CAGR based on India benchmark  
Source: FAO database 2021 (production, exports, ag loans, ag insurance penetration, ISO22000 uptake); World Bank 2021; UNEP; The Digitalisation of African Agriculture Report 2018/19, CTA; BCG analysis



# Much of the opportunity (£2B) unaddressed especially in Ghana and Nigeria

Cold chain opportunity v consumption in target countries<sup>1</sup> (£ million)



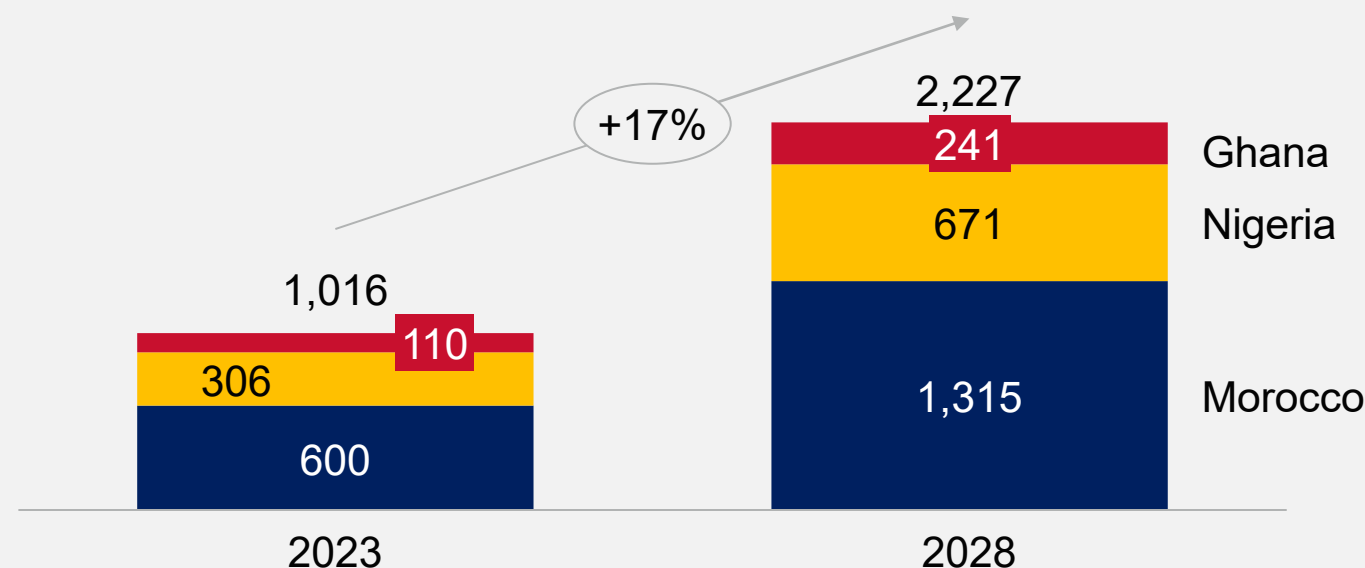
Consumption constrained by 3 reasons :

- **Limited reliable and affordable energy access esp in Nigeria**
  - Nigeria with 55.4% energy access at \$0.049/kWh
  - Ghana with 85.9% energy access at \$0.03/kWh
- **Relative low exports (Nigeria & Ghana):** Cold chain consumption correlates with exports, Nigeria & Ghana only export 1% & 3% of production today
- **Lack of affordable solutions for smallholders:** Despite utility of cold chain to minimize post-harvest losses, most offerings are unaffordable for large smallholder population (est. 70%)

1. Note: see "opportunity sizing" Excel for detailed assumptions behind each model  
Source: FAO database 2021; World Bank 2021; UNEP; The Digitalisation of African Agriculture Report 2018/19, CTA; WorldBank; GlobalPetrolPrices; BCG analysis

# Consumption in each market will grow rapidly at ~17% p.a. to converge on full opportunity in next 5 years

Current cold chain consumption (2022) and 5-year forecast in target countries<sup>1</sup> (£ M)



- Critical to enter Moroccan market now to take advantage of the opportunity as the market approaches full potential in the next 5 years
- West African markets will remain under penetrated, but good to enter now and take advantage of opportunity to learn. As these markets' exports increase, this will grow further

Strong secular trends are driving strong growth in cold chain across Africa:

**Increasing food demand** due to rapid population growth (2% p.a.) and economic development (2% p.a. increase in per capita income), driving need for expanded cold chain to minimize losses

**Urbanisation** (9% p.a. growth through 2040) and **formalization** of food end markets will increase share of food requiring cold chain

**Production shifting** towards **higher value products** (e.g., flowers, fruits, fish)

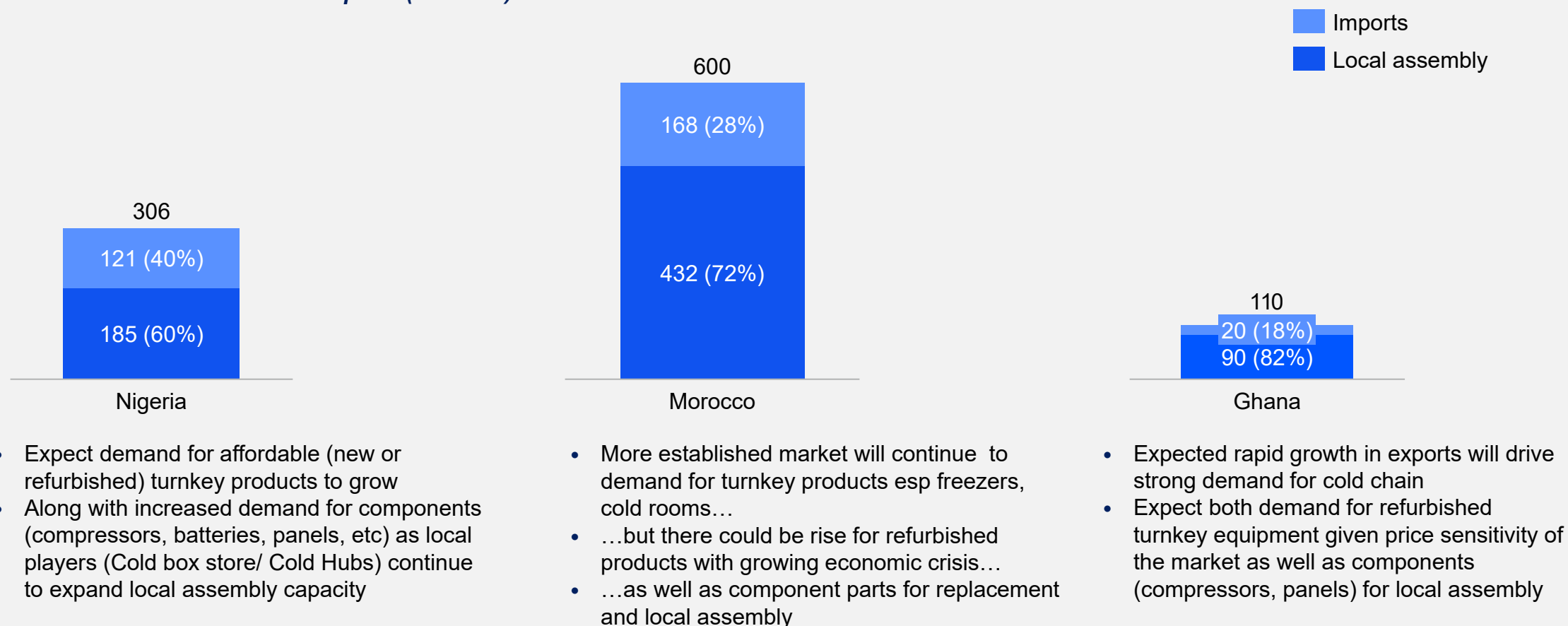
Increasing **replacement of imports** with **domestic products** (e.g., in fast food sector)

## Recall | **Four** questions to understand opportunity space in focus markets

- 1 What is the size of the opportunity in Nigeria, Morocco and Ghana?
- 2 Who are leading players and what is the UK's level of participation?
- 3 What challenges and/or market access barriers do UK players face in participating?
- 4 What are the opportunities identified in Nigeria, Morocco and Ghana?

# Imports constitute around 30% of consumption, and will play key role in meeting the growing demand

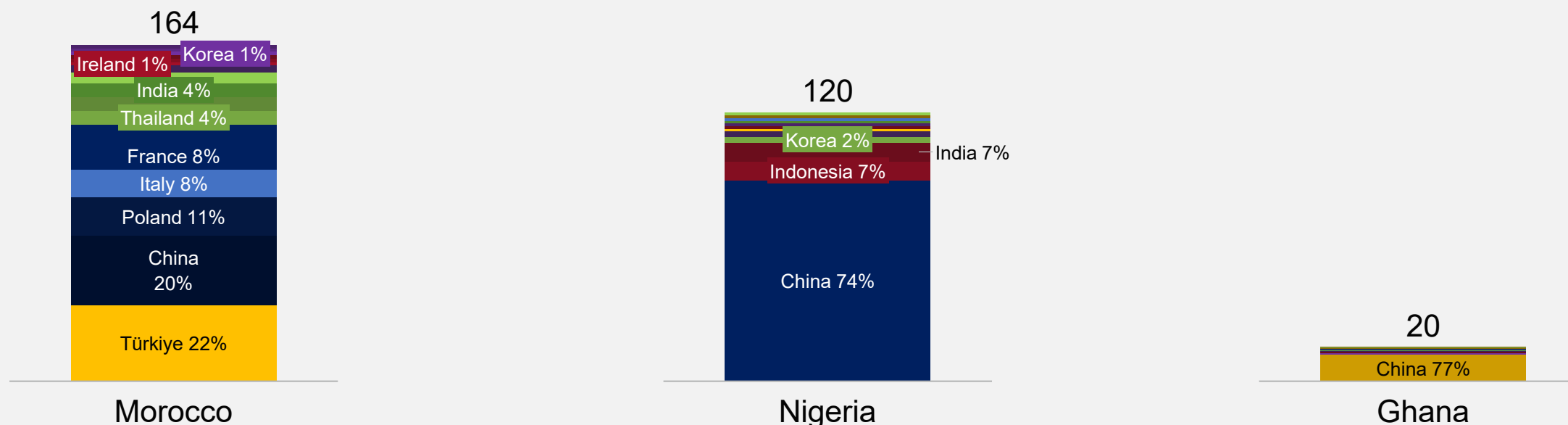
## Breakdown of current consumption (£ million)



Note: Cold chain imports refer to all imports classified under HS Codes 841810 (Combined refrigerator-freezers, non household), 841830 (Chest freezers), 841840 (Upright freezers), 841861 (Heat pumps, excluding for Air Conditioning machines), 841869 (Refrigerating or freezing equipment excluding refrigerating and freezing furniture), 841891 (Furniture designed to receive refrigerating and freezing equipment), 841899 (Parts of refrigerating or freezing equipment and heat pumps n.e.s.);  
Source: UNCOMTRADE; Tariffnumber.com BCG analysis

# In the 3 focus markets, China & Turkey dominate imports especially in W Africa suggesting 'price is generally king'

Total cold chain equipment imports by source countries (£M), 2021 (excl. Ghana, where 2019 is most recent data)



- Dominated by low-cost producers, especially China, Turkey and Poland (>50% of market) with avg prices between £60-300
- Premium players esp France and Italy are present but with much smaller share (<20%) and their prices are 2-2.5x higher than low-cost players hence focused on niches

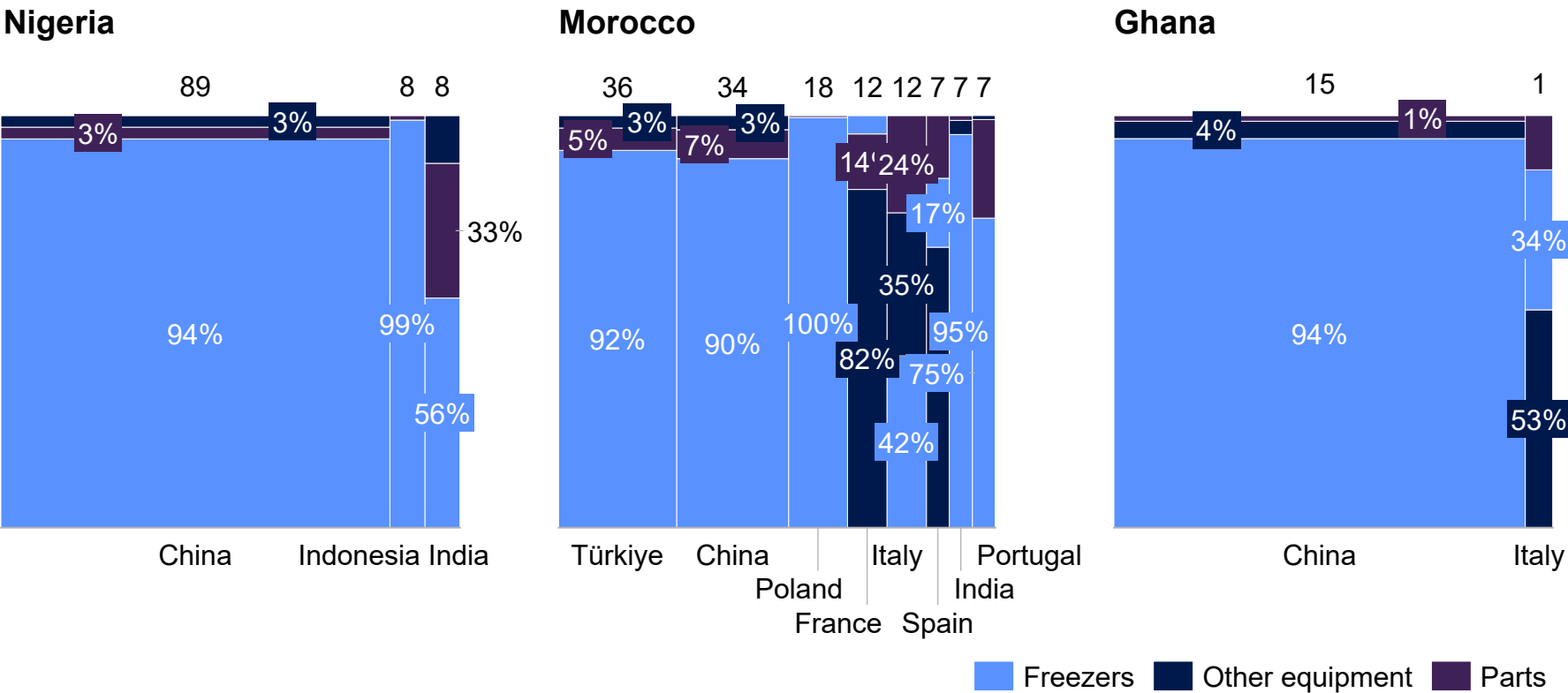
- Less mature markets for cold chain - 20% of produce requiring cold chain, albeit changing); low electricity access and lack of affordable options for smallholders and with nascent horti exports
- Buyers are therefore more price sensitive:
  - Average prices from China and other low-cost producer like India, in <£200 range
  - Expectedly, premium players are largely absent, and when they are e.g. Italy, their high prices (6x more than low cost players, and even more than in Morocco) translate to lower share

Note: Cold chain imports refer to all imports classified under HS Codes 841810 (Combined refrigerator-freezers, non household), 841830 (Chest freezers), 841840 (Upright freezers), 841861 (Heat pumps, excluding for Air Conditioning machines), 841869 (Refrigerating or freezing equipment excluding refrigerating and freezing furniture), 841891 (Furniture designed to receive refrigerating and freezing equipment), 841899 (Parts of refrigerating or freezing equipment and heat pumps n.e.s.). Source: UNCOMTRADE; BCG analysis



# In Ghana and Nigeria consumption is mainly freezers with more categories open in Morocco

Breakdown of top 80% of cold chain import value by type and source country (£ million)



Note: Cold chain imports refer to all imports classified under HS Codes 841810 (Combined refrigerator-freezers, non household), 841830 (Chest freezers), 841840 (Upright freezers), 841861 (Heat pumps, excluding for Air Conditioning machines), 841869 (Refrigerating or freezing equipment excluding refrigerating and freezing furniture), 841891 (Furniture designed to receive refrigerating and freezing equipment), 841899 (Parts of refrigerating or freezing equipment and heat pumps n.e.s.)  
Source: UNCOMTRADE; Tariffnumber.com BCG analysis











In Nigeria and Ghana path forward for UK will depend on ability to respond to low cost freezers from China

In Morocco, more open market exists esp in non-freezer categories, and for UK to play, will need to differentiate both on price and non-price factors

Next slides will unpack UK value proposition and competitiveness

# To win in Nigeria & Ghana, UK players need to be able to offer deep discounts, e.g. by selling refurbished eqpt or soft payment terms which may be a challenge

Product comparison to illustrate requirements to compete

Product	Leading offering	UK players profile	How UK can win + feasibility assessment
 IQF Blast freezer, 10 trays	  <ul style="list-style-type: none"> <li>+ £1700 brand new</li> <li>+ Worldwide warranty</li> <li>- Limited customization</li> </ul>	  <ul style="list-style-type: none"> <li>- £3800 brand new</li> <li>- Warranty limited to UK</li> <li>+ High specs and customization</li> </ul>	<b>With discounts, could compete against Chinese on quality</b> <ul style="list-style-type: none"> <li>&gt;50% discount through second hand offering needed to compete with Chinese products, which opens possibility to differentiate on basis of durability, quality, specification</li> <li>However, leading UK mfrs and distributors do not offer refurbished equipment, or payment plans to customers</li> <li>Also do not always offer warranty while this is a key purchase criterion for customers</li> <li>Could engage third-party re-salers, but these are smaller businesses who need education on NW Africa opportunity</li> </ul>
 Walk-in cold room, 1200L	  <ul style="list-style-type: none"> <li>+ £2500 brand new</li> <li>- High energy use</li> <li>+ Worldwide warranty</li> <li>- Limited customization</li> </ul>	  <ul style="list-style-type: none"> <li>+ £5500 brand new</li> <li>- Warranty limited to UK</li> <li>+ Known as durable &amp; energy-efficient</li> </ul>	<b>With discounts, could compete against Chinese on quality</b> <ul style="list-style-type: none"> <li>&gt;50% discount through second hand offering needed to compete with Chinese products, which opens possibility to differentiate on basis of durability, quality, specification</li> <li>However, leading UK manufacturers and distributors do not offer refurbished equipment, or payment plans to customers</li> <li>Also do not always offer warranty while this is a key purchase criterion for customers</li> <li>Could engage third-party re-salers, but these are smaller businesses who need education on NW Africa opportunity</li> </ul>

Note: Comparison of like products done to assess what kind of value proposition UK players could offer to be competitive  
Source: Nisbetts; Company sales desks; Expert interviews; BCG analysis

# UK could look to compete in Morocco if they can offer discounts and range (incl. parts) but must work hard against well-established reputations

Product comparison to illustrate requirements to compete

## Product



IQF Blast freezer, 10 trays

## Leading offering



- + £2000 brand new
- + 2-yr mfg warranty
- + Known as durable

## UK players profile



- £3800 brand new
- + Warranty limited to UK
- + High specs and customization

## How UK can win + feasibility assessment

### UK players may likely struggle against Italian players

- Min 50% discount e.g., through refurbished offering needed to compete with Italian products but not currently offered ...
- ...however, price alone will be insufficient to close reputation gap vs Italian brands which also offer durability, quality, specification
- Also do not always offer after market services which is a key purchase criterion for customers in this market
- UK not a leading manufacturer of components or spare parts which also growing in demand in this market



Cold Reefer container, 40F



- + £20,000 brand new
- + £7,00 used
- Weak quality reputation



- £35,000 brand new
- + £10,000 used
- + Known as durable

### With discounts, could compete against Turkey on quality

- >30% discount through second hand offering needed to compete with Turkish products, where UK products can differentiated on durability, quality, specification
- Some UK mfrs and distributors offer refurbished reefer containers but no payment plans to overseas customers
- Also do not always offer international warranty or offer after market services which are a key purchase criterion
- Could engage for third-party re-salers, but usually smaller businesses who need education on N/W Africa opportunity

**Overall, cold chain requires medium-to-long-term approach for the UK in the focus markets – 2 broad sets of opportunities to target**



**Refurbished equipment** in price sensitive West African markets, to compete on price with low-cost players from China etc

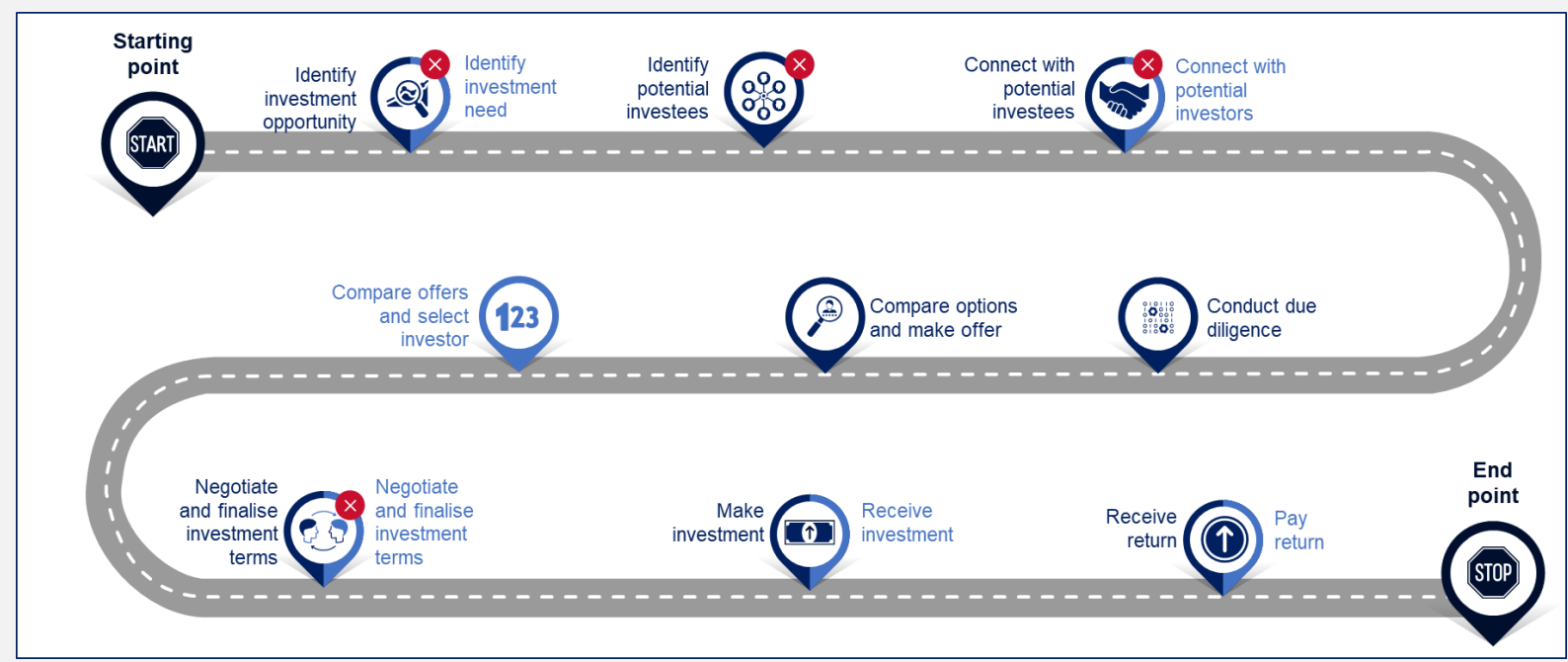


**Refurbished equipment and parts** in Morocco, to compete for relatively open market, especially against European players like Italy

## Recall | **Four** questions to understand opportunity space in focus markets

- 1 What is the size of the opportunity in Nigeria, Morocco and Ghana?
- 2 Who are leading players and what is the UK's level of participation?
- 3 What challenges and/or market access barriers do UK players face in participating?
- 4 What are the opportunities identified in Nigeria, Morocco and Ghana?

# Methodology | Practical approach to identify challenges and barriers leveraging buyer, supplier and expert insights as well as desk research



~10

UK, Nigeria, Ghana, Morocco  
buyer and expert interviews

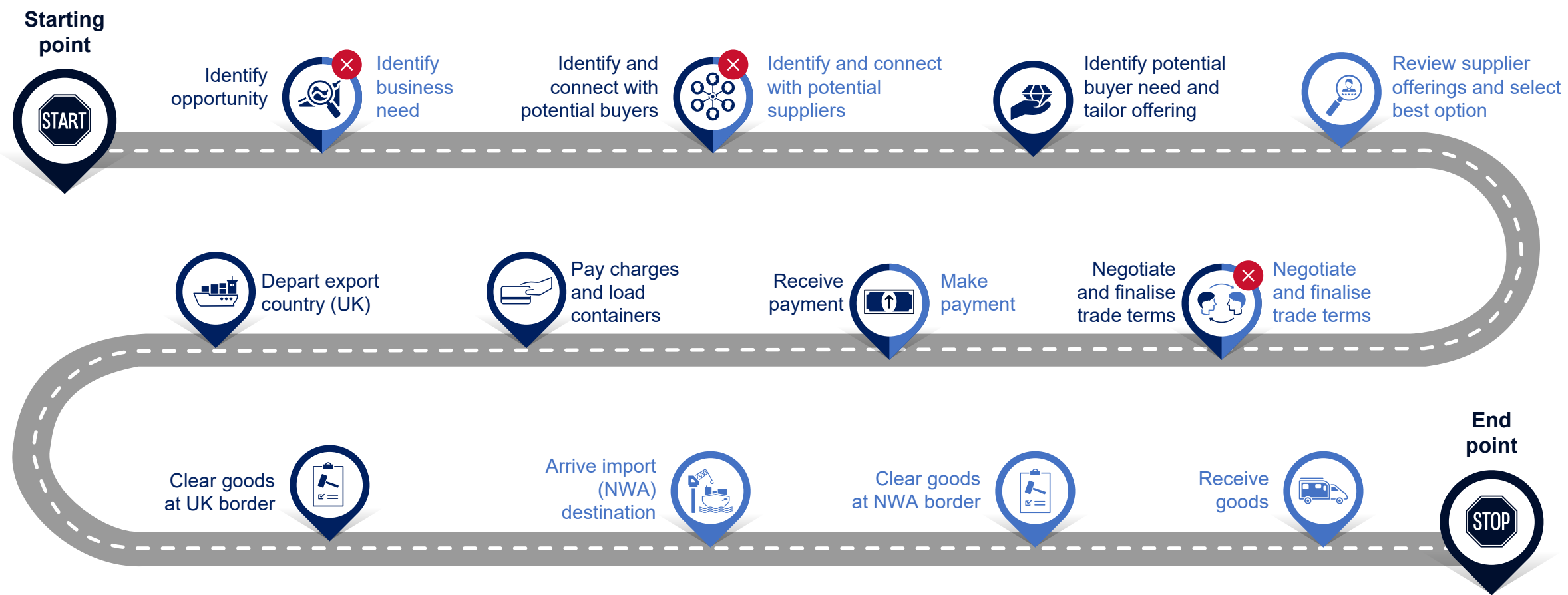


~5

Expert interviews, and  
desk research



# Challenges | Several challenges exist along trade journey



Source: Expert insights; BCG Analysis

✗ Barriers along the trade journey
 ● UK (exporter) journey
 ● NWA (importer) journey

# Challenges are mainly linked to information asymmetry and price disadvantage, manifesting under 3 broad themes

Additional quotes in appendix

Limited UK cold chain player visibility relative to other countries

“If you go to Fruit Logistica in Berlin everyone is there, **but you don't see any English companies**. Another is called Fruit Attraction in Madrid. **I don't think I've seen any UK players here**" – Large Moroccan Berry Farm

" **We don't really focus on these markets** unless one of our customers needs to send something that way. We have a network of partners who get enquiries, **but the main business is from our UK clients** " – UK cold chain logistics provider

UK brand on cold chain (price & quality) is unclear

“China has a reputation for cheap products, Italy for quality, **but no one really thinks about the UK on cold chain. We don't know what they are good at**" – African cold chain player

"This week we're getting 4 packing machines from the UK, **but I don't really know UK cold chain brands**" – Large Moroccan Berry Farm

UK players not well informed on cold chain needs in NW Africa

“We prefer to buy components and build locally given the cost. Honestly the UK isn't a primary focus now – we are looking at providers from China and US. **When we have looked at the UK, they like to offer full turnkey solutions, which are well outside what we can afford** " – Ghanaian commercial farm

"We buy a lot of Spanish and Italian machinery because it's **quick to get support** when there's an issue. Spain is a stone-throw away and the Italians have partnerships with local players on ground which speeds up response time. **Not sure UK players offer same** " – Large Moroccan Berry Farm



HM Government

## **Barriers | Interviews, and desk research highlight few non-tariff barriers in Morocco, but none in Nigeria or Ghana**

- **Import license restrictions for UK-to-Morocco exports currently in force**
  - Complex process to secure a license, where applications are made to Moroccan authority with direct oversight of product which differs by product, but license granted by Ministry for overseas trade. Also applications must be made in French or Arabic
- **30% of invoice ceiling for advance payments to UK exporters in force, compelling UK exporters to offer payment terms which they may find less favourable**
  - UK businesses capped to receive 30% of payment in advance and full invoice cannot exceed MAD200k (~15800 GBP). Exceptions to the ceiling possible but require authorisation from Moroccan Exchange office
- **Local regulation stipulates imports contingent upon the signing of an import indenture domiciled with an approved Moroccan bank, but limited correspondence banking with UK currently**
  - Moroccan financial industry experts highlight that UK banks do correspondence banking with Moroccan counterparts. Hence UK businesses will go through longer, potentially costlier processes as a result

## Recall | **Four** questions to understand opportunity space in focus markets

- 1 What is the size of the opportunity in Nigeria, Morocco and Ghana?
- 2 Who are leading players and what is the UK's level of participation?
- 3 What challenges and/or market access barriers do UK players face in participating?
- 4 What are the opportunities identified in Nigeria, Morocco and Ghana?

# A number of themes about the UK and focus countries emerged as we examined opportunities

## United Kingdom



- **UK not a major exporter** but can leverage strengths i.e. innovation, sustainable cold chain leadership
- **UK cold chain players visibly absent** in all 3 markets, esp relative to competition
- Recommend for UK to **prioritise entry into Morocco**, but also make targeted plays leveraging partnerships in Nigeria & Ghana

## Nigeria



- **Largest market in W. Africa**; but less mature and nascent horti export
- Rise of local assembly players will **drive demand for** components (panels, compressors, batteries); but **focus on cost** in selecting between providers
- While space for premium, niche play **could grow in the future**, imperative to develop low-cost offerings to play in these markets

## Morocco



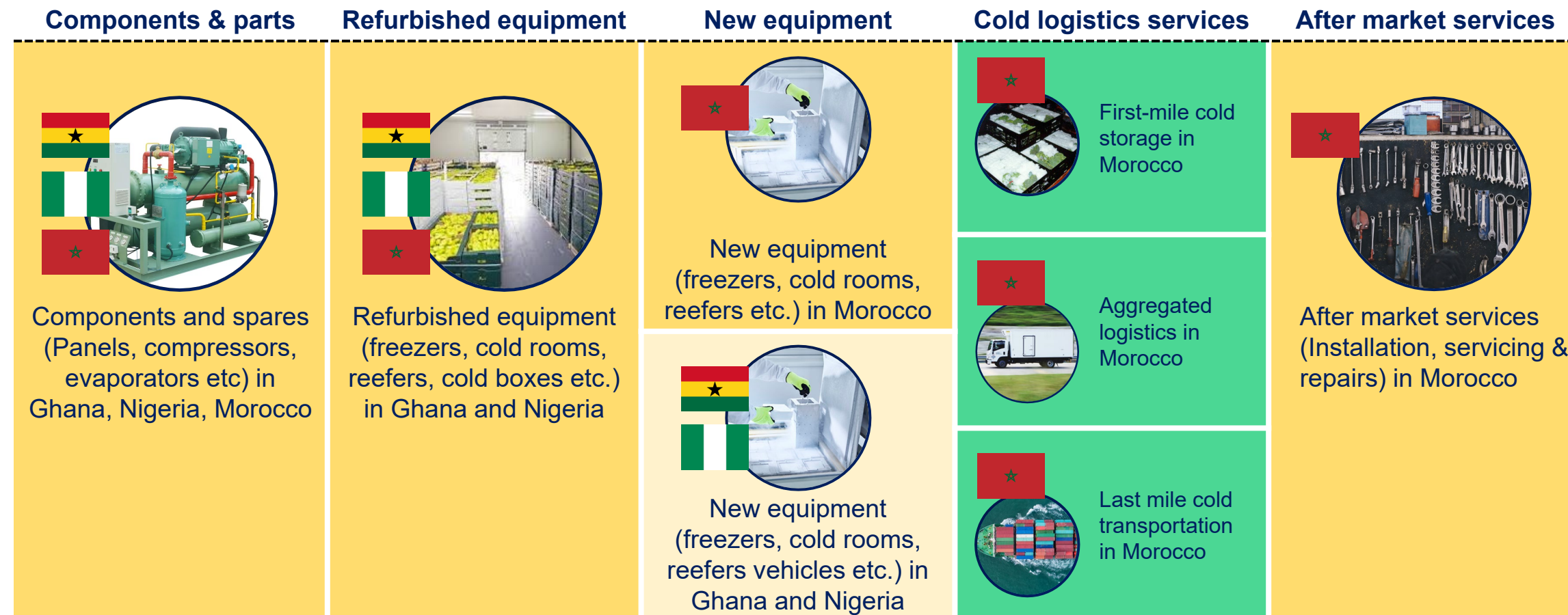
- **Leading N. African fruits** to Europe & Middle East
- **Premium players from EU** (China, Turkey, Poland) with **>40% of market**; UK providers not present
- **Cost a key decision factor hence** potential to compete if proposition is right
- Increasing drive to diversify diplomatic ties could also **favour UK-Morocco trade**; as we see higher volumes with stronger diplomatic ties

## Ghana



- **Smallest of 3 markets** but strong horti exports **driving cold chain**; UK players not present
- **Expect rise in demand** for components (compressors, panels) for local assembly given **markets' price sensitivity**
- Also, some opportunities in refurbished turnkey equipment; however **price and energy efficiency remain key concerns**

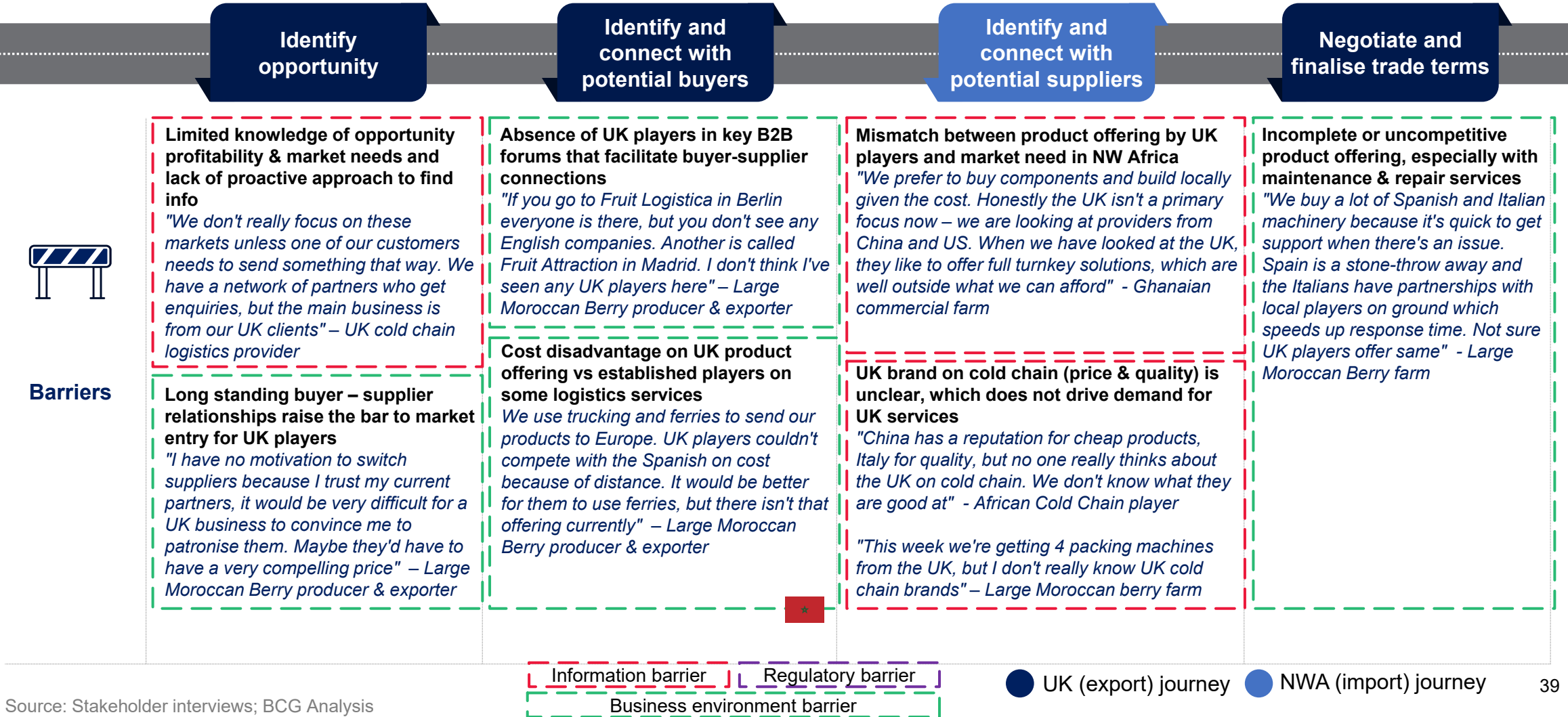
# Opportunities | 10 opportunities in Cold Chain identified, but likely medium to long term



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# Challenges across the cold chain trade journey




# Back Up: Information asymmetry and uncompetitive offerings are the key challenges identified for UK-to-Nigeria / Morocco / Ghana trade



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# Deep-dive of cold chain opportunities


# Backup: Mapping of identified trade opportunities to cold chain archetypes

Cold chain player	Trade offering	Description	Relevant examples
 <b>Equipment distributors &amp; exporters</b>	Product	Focused on sale (domestic and export) of turnkey equipment's, component parts, spare parts and consumables	Industrial blast freezers, walk-in cold room, cold boxes, Reefer trucks, refrigerated vans, Reefer containers, Refrigerants, Insulated panels, Compressors, Batteries, Coolants, temperature monitors
 <b>Logistics provider</b>	Service	Provide temperature -controlled infrastructure as a service such as cold warehouse, cold trucks	Refrigerated vans, Reefer trucks freight, Frozen air freight, Walk-in cold rooms, Blast freezers, Cold boxes & ice packs
 <b>After sales service provider</b>	Product & Service	Primary focus on after sales support services such as installation, repairs, maintenance, training	N/A

Note: Distributors and exporters do not manufacture cold chain equipment and/or component parts  
Source: Expert interviews; BCG research

# Deep-dive: Components and spare parts in Ghana

Overall assessment



Opportunity type

☒ Trade

☐ Investment

Category

☒ Cold chain products

☐ Cold chain services

☐ Financing

☐ Other

Description

Components – both news and spare parts - used to assemble cold storage or equipment e.g. Compressor, Sandwich Panels, Condenser, Expansion device, and Evaporators.

Opportunity size

- £50Mn – Ghana

Current key competitors

- China - £30M, Turkiye - £25M
- France- £10M, Italy - £7M
- India - £3M, Spain - £2M

Summary of assessment justification

**High and rising demand** for cold storage in Ghana

**Local assembly companies** on the rise but not at scale

**UK not leading manufacturer** of cold chain components

Why Ghana

- There is a clear need for chain solution given:**
  - Growing export demand** for fruits (esp. Pineapples, Banana and Passion fruits) with 3% CAGR over the next 5 years<sup>1</sup> increasing the need for cold logistics services
  - Insufficient current facilities:** Only 5% of agric. output requiring cold chain refrigerated leading to >50% waste vs 14% global avg; ~2x capacity needed
- ...but local companies not at scale:** Local players e.g. Freezeelink in Ghana rising to tackle problem, however, still need to find solutions especially on affordability to unlock the market

Why UK

- UK players not leading in cold chain component and spare parts manufacturing as research show they are more of an assembler**

Potential Customers

Large commercial farms exporting fruits and vegetables

Traders and aggregators exporting fruits and vegetables

Potential UK businesses

Logistics providers

TBD

1. [Mordor intelligence](#).  
Source: FAO database 2021, World Bank, Pitchbook; Capital IQ; BCG analysis

# Deep-dive: Refurbished cold storage equipment in Ghana

Overall assessment



Opportunity type

☒ Trade

☐ Investment

Category

☒ Cold chain products

☐ Cold chain services

☐ Financing

☐ Other

Description

Providing refurbished cold storage equipment to enable the preservation of horticulture products for sale or export

Opportunity size

- £430Mn – Ghana

Current key competitors

- China - £30M, Turkiye - £25M
- France- £10M, Italy - £7M
- India - £3M, Spain - £2M

Summary of assessment justification

High and rising demand for cold storage in Ghana

Rising export demand for fruits in Ghana

UK not leading manufacturer of cold chain components

Why Ghana

- Demand for cold chain components will grow given:**
  - Growing export demand** for fruits (esp. Pineapples, Banana and Passion fruits) with 3% CAGR over the next 5 years<sup>1</sup> increasing the need for cold chain
  - Insufficient current facilities:** Only 5% of agric. output requiring cold chain refrigerated leading to >50% waste vs 14% global avg; ~2x capacity needed
- Growth in UK-Ghana trade:** Export of fruits and vegetable to the UK growing by 6% also leading to increased need for cold equipment to preserve produce for export
- Preference for more affordable reburnished equipment:** Ghanaian farmers struggle with the high price points on turnkey solutions so opt for much more affordable refurbished options

Why UK

- UK players not leading in manufacturing reburnished cold storage equipment cost manufacturing and may struggle with African market price points**

Potential Customers

Large commercial farms exporting fruits and vegetables

Traders and aggregators exporting fruits and vegetables

Potential UK businesses

Logistics providers

TBD

# Deep-dive: Refurbished cold storage equipment in Ghana

Overall assessment



Opportunity type

☒ Trade

☐ Investment

Category

☒ Cold chain products

☐ Cold chain services

☐ Financing

☐ Other

Description

Providing refurbished cold storage equipment to enable the preservation of horticulture products for sale or export

Opportunity size

- £430Mn – Ghana

Current key competitors

- China - £30M, Turkiye - £25M
- France- £10M, Italy - £7M
- India - £3M, Spain - £2M

Summary of assessment justification

High and rising demand for cold storage in Ghana

Rising export demand for fruits in Ghana

UK not leading manufacturer of cold chain components

Why Ghana

- Demand for cold chain components will grow given:**
  - Growing export demand** for fruits (esp. Pineapples, Banana and Passion fruits) with 3% CAGR over the next 5 years<sup>1</sup> increasing the need for cold chain
  - Insufficient current facilities:** Only 5% of agric. output requiring cold chain refrigerated leading to >50% waste vs 14% global avg; ~2x capacity needed
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- Preference for more affordable reburnished equipment:** Ghanaian farmers struggle with the high price points on turnkey solutions so opt for much more affordable refurbished options

Why UK

- UK players not leading in manufacturing reburnished cold storage equipment cost manufacturing and may struggle with African market price points**

Potential Customers

Large commercial farms exporting fruits and vegetables

Traders and aggregators exporting fruits and vegetables

Potential UK businesses

Logistics providers

TBD

# Deep-dive: Components and spare parts in Nigeria

Overall assessment



Opportunity type

☒ Trade

☐ Investment

Category

☒ Cold chain products

☐ Cold chain services

☐ Financing


☐ Other

Description			
Components – both news and spare parts - used to assemble cold storage or equipment e.g. Compressor, Sandwich Panels, Condenser, Expansion device, and Evaporators.			
Opportunity size	Current key competitors	Summary of assessment justification	
<ul style="list-style-type: none"><li>£Mn – Nigeria</li></ul>	<ul style="list-style-type: none"><li>China - £30M, Turkiye - £25M</li><li>France- £10M, Italy - £7M</li><li>India - £3M, Spain - £2M</li></ul>	<b>Clear need</b> for cold storage in Nigeria <b>Local assembly companies</b> not at scale <b>UK not leading manufacturer</b> of cold chain components	
Why Nigeria		Why UK	
<ul style="list-style-type: none"><li><b>There is a clear need for chain solution given:</b><ul style="list-style-type: none"><li><b>Growing export demand</b> for fruits and vegetables (esp. citrus, melons and tubers) with 3% CAGR over the next 5 years<sup>1</sup> increasing the need for cold chain equipment</li><li><b>Insufficient current facilities:</b> Only 5%<sup>2</sup> of agric. output requiring cold chain refrigerated leading to &gt;50% waste vs 14% global avg; ~2x capacity needed</li></ul></li><li><b>but local companies not at scale:</b> Local players e.g. ColdHubs in Nigeria rising to tackle problem, however, still need to find solutions especially on affordability to unlock the market</li></ul>		<ul style="list-style-type: none"><li><b>UK players not leading in cold chain component and spare parts manufacturing as research show they are more of an assembler</b></li></ul>	
Potential Customers		Potential UK businesses	
Large commercial farms exporting fruits and vegetables  Traders and aggregators exporting fruits and vegetables		Logistics providers  TBD	

1. [Mordor intelligence](#) 2. Trading Economies  
Source: FAO database 2021, World Bank, Pitchbook; Capital IQ; BCG analysis

# Deep-dive: Turnkey cold storage equipment in Nigeria

Overall assessment



Opportunity type

☒ Trade

☐ Investment

Category

☒ Cold chain products

☐ Cold chain services

☐ Financing

☐ Other

Description

Providing turnkey cold storage equipment to enable the preservation of horticulture products for sale or export

Opportunity size

- £1.2Bn – Nigeria

Current key competitors

- China - £30M, Turkiye - £25M
- France- £10M, Italy - £7M
- India - £3M, Spain - £2M

Summary of assessment justification

High and rising demand for cold storage in Nigeria

Rising export demand for fruits in Nigeria

UK is a leading manufacturer of turnkey cold chain

Why Nigeria

- Demand for cold chain components will grow given:**
  - Growing export demand** for fruits and vegetables (esp. citrus, melons and tubers) with 3% CAGR over the next 5 years<sup>1</sup> increasing the need for cold logistics services
  - Insufficient current facilities:** Only 5% of agric. output requiring cold chain refrigerated leading to >50% waste vs 14% global avg; ~2x capacity needed
- Growth in UK-Nigeria trade:** Export of fruits and vegetable to the UK growing by 6% also leading to increased need for cold chain logistics services

Why UK

- UK players not leading in manufacturing reburnished cold storage equipment cost manufacturing and may struggle with African market price points**

Potential Customers

Large commercial farms exporting fruits and vegetables

Traders and aggregators exporting fruits and vegetables


Potential UK businesses

Logistics providers

TBD

# Deep-dive: First mile cold storage services in Morocco

Overall  
assessment



Opportunity type

☒ Trade

☐ Investment

Category

☐ Cold chain products

☒ Cold chain services

☐ Financing

☐ Other

Description

Provide first mile cold storage services - mobile cold boxes - to commercial berry, tomato and other fruit farms in Morocco

Opportunity size

- £150Mn – Morocco

Current key competitors

- China - £30M, Turkiye - £25M
- France- £10M, Italy - £7M
- India - £3M, Spain - £2M

Summary of assessment justification

**High and rising demand** for cold storage in Morocco

**Significant support for foreign companies** to provide cold logistics

**UK provides** cold chain logistics relevant to Morocco

Why Morocco

- Demand for first mile cold storage will grow given:**
  - Growing export demand** for fruits and vegetable with 6% CAGR over the next 5 years<sup>1</sup> increasing the need for cold logistics services
  - First-mile particularly important to reduce post-harvest losses:** Early cold chain reduces up to 22-50%<sup>2</sup> losses, critical to satisfy export demand
  - Insufficient current facilities:** Only 5%<sup>3</sup> of agric. output requiring cold chain refrigerated leading to >50% waste vs 14% global avg; ~2x capacity needed
- Growth in UK-Morocco trade:** Export of fruits and vegetable to the UK growing by 15% also leading to increased need for cold chain logistics services
- Strong business support for cold logistics:** The Moroccan Agency for Logistics Development supports foreign players to setup and provides regulatory incentives




Why UK




- UK providers offer innovative mobile coldbox solutions:** UK players offer dual compartment cold storage which address different temperature needs of fresh fruits vs citrus, relevant for logistics players who service a broad range of farmers/exporters
- Innovator in renewable energy powered cold solutions:** UK Centres of Excellence in Sustainable Cooling and Cold-Chain in India and Rwanda conduct state-of-the-art research in and support roll-out of affordable, energy resilient, low emission cold-chain systems in developing economies

Potential Customers

Large commercial farms exporting fruits and vegetables

Traders and aggregators exporting fruits and vegetables





Potential UK businesses

Logistics providers

TBD






Note: Energy resilient means can switch between grid and off grid solution (wind, solar etc) and/or is energy efficient

1. [Mordor intelligence](#) 2. ACSC 3. Trading Economies

Source: FAO database 2021, World Bank, Pitchbook; Capital IQ; BCG analysis

# Deep-dive: Provide aggregated logistics services in Morocco

Overall assessment



Opportunity type

☒ Trade

☐ Investment

Category

☐ Cold chain products

☒ Cold chain services

☐ Financing

☐ Other

Description

Provide cold facilities and packhouses to store and process berries, tomatoes and cucumber in Morocco

Opportunity size

- £200 Mn – Morocco

Current key competitors

- China - £75M, Turkiye - £60M
- France- £25M, Italy - £18M
- India - £8M, Spain - £6M

Summary of assessment justification

High and rising demand for cold storage in Morocco

Significant support for foreign companies to provide cold logistics

High level of expertise in providing cold chain logistics for UK players

Why Morocco

- Demand for aggregated cold logistics will grow given:
  - Strong preference for value added on solutions: Most farmers prefer cold storage with value added services i.e. packaging, preparation for exports. This accounts for over 50% of cold logistics and expected to grow 2x by 2030<sup>1</sup>
  - Increasing local demand for fruits and vegetables: Currently valued at £100M and expected CAGR of 5.5%<sup>2</sup> between 2022-2027 as growing middle class shifting consumption toward healthier foods, increasing the need for storage, processing and packaging for local retailers
- Growth in UK-Morocco trade: Export of fruits and vegetable to the UK growing by 15%<sup>3</sup> also leading to increased need for cold chain logistics services

Why UK

- Leading provider of aggregated cold solutions: UK providers with considerable experience and knowledge providing cold storage, processing and packaging services especially for export given familiarity with EU food handling requirements

Potential Customers

Large commercial farms

Fruit and vegetable grocers

Traders and aggregators supplying supermarkets





Potential UK businesses


Logistics providers



Note: see "opportunity sizing" Excel for detailed assumptions behind each model  
1. LixCap 2. Mordoe Intelligence 3 [Trade.gov](#)  
Source: BCG research

# Deep-dive: Provide last mile transport services in Morocco

Overall assessment



Opportunity type

☒ Trade

☐ Investment

Category

☐ Cold chain products

☒ Cold chain services

☐ Financing

☐ Other

Description

Provide last mile transportation services from warehouses or processing centres in Morocco to the final destination

Opportunity size

- £230 Mn – Morocco

Current key competitors

- China - £45M, Turkiye - £120M
- France- £50M, Italy - £35M
- India - £15M, Spain - £12M

Summary of assessment justification

High and rising demand for cold storage in Morocco

Significant support for foreign companies to provide cold logistics

UK providers with expertise in providing cold chain export logistics

Why Morocco

- Demand for last mile cold transportation will grow given:**
  - Last mile transport is crucial to export for fruits and vegetable:** Export growing at 7%<sup>1</sup> over the next 5 years, increasing the need for cold logistics
  - Insufficient current facilities:** : Only 5%<sup>2</sup> of agric. output requiring cold chain refrigerated leading to >50% waste vs 14% global avg; ~2x capacity needed
- Growth in UK-Morocco trade:** Export of fruits and vegetable to the UK growing by 15%<sup>3</sup> leading to increased need for cold logistics services that meet UK standard
- Strong business support for cold logistics:** The Moroccan Agency for Logistics Dev't aids cold logistics provider with technical support to set up & operate

Why UK

- Leading provider of cold export transportation solutions:** As a net importer of fresh vegetables (~50%), the UK has developed an 'unbroken cold logistics solutions' to transport produce in peak condition
- Large comprehensive freight shipping and logistics networks:** UK providers (e.g. Chiltern, DFDS) with daily connections to major EU food hubs and efficient and reliable ferry, cold freight, air freight services and door-door solutions.
- Expertise in navigating UK and EU customs procedures:** UK providers with expert knowledge and experience providing Sanitary and Phytosanitary (SPS) controls required for customs approval for fruits and vegetable exported to UK and EU

Potential Customers

Large commercial farms exporting fruits and vegetables

Traders and aggregators exporting fruits and vegetables



Potential UK businesses

Logistics providers



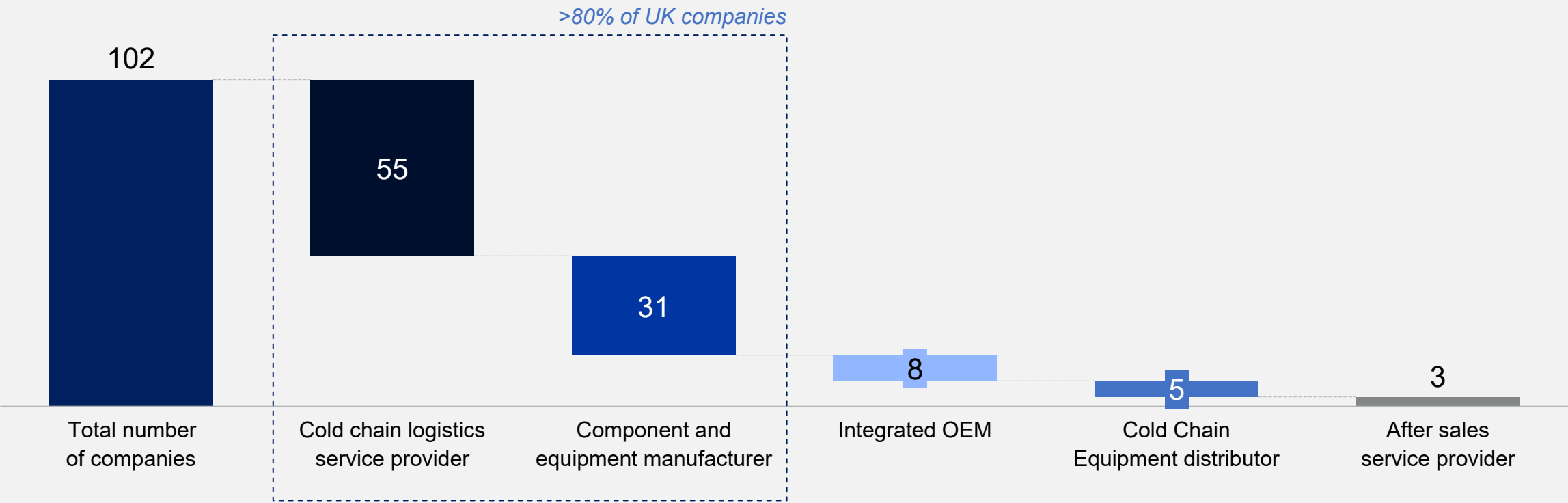
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# UK cold chain player landscape

# UK Cold Chain Federation identifies 100+ cold chain companies, of which >80% are logistics service providers and manufacturers

Not exhaustive

# Leading UK companies in Cold Chain

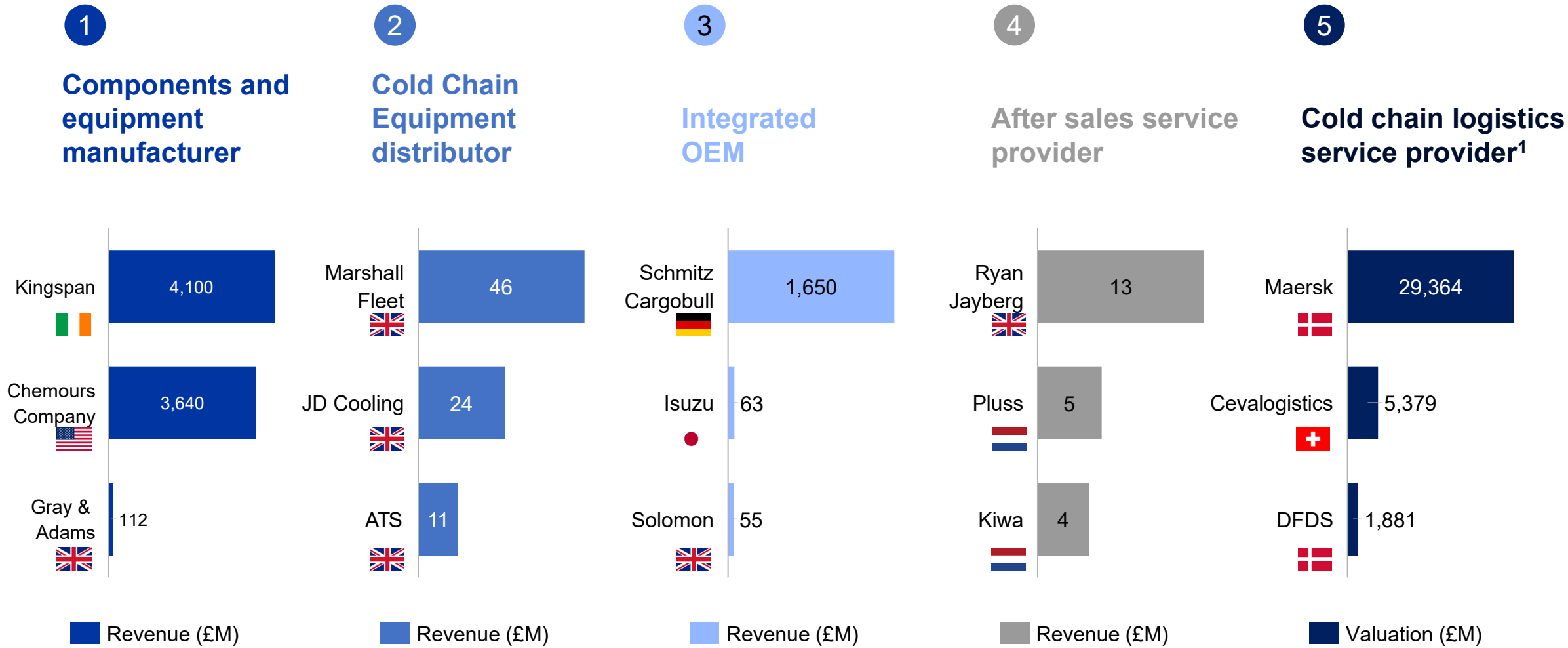


Examples:



Note: Fully integrated player type was not found among UK based companies directory maintained by CCF  
Source: Expert interviews; GCCA Reports, Cold Chain Federation Reports, BCG analysis, Globenewswire, Researchandmarkets Report

# Back-up: Top players in the UK are mainly headquartered outside UK

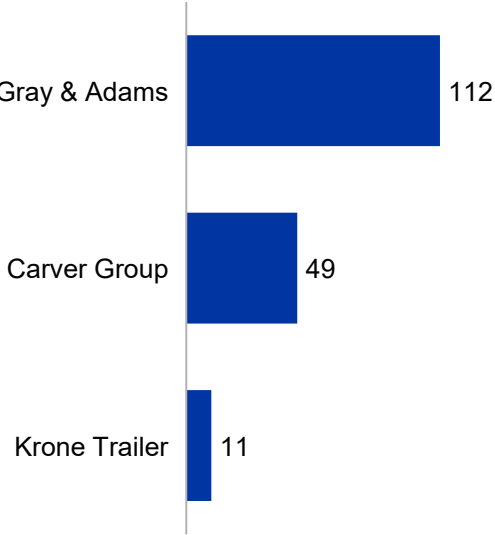


Source: Capital IQ, Pitchbook; BCG analysis

# Back-up: Few leading players of UK-origin identified

1

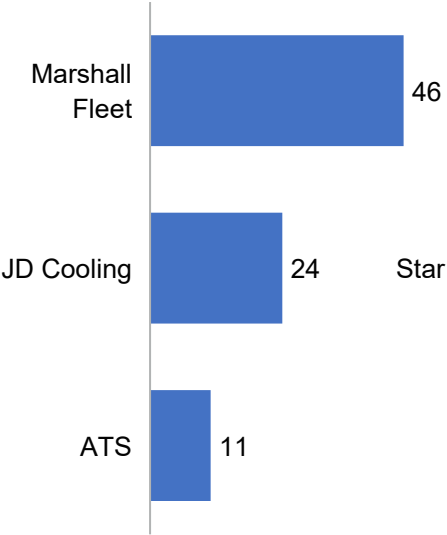
## Components and equipment manufacturer



Revenue (£M)

2

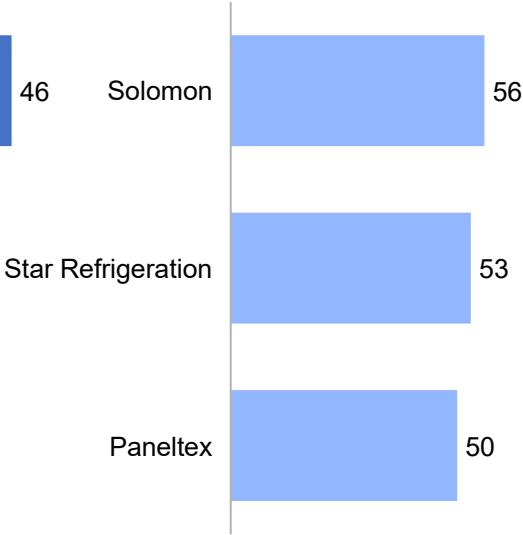
## Cold Chain Equipment distributor



Revenue (£M)

3

## Integrated OEM



Revenue (£M)

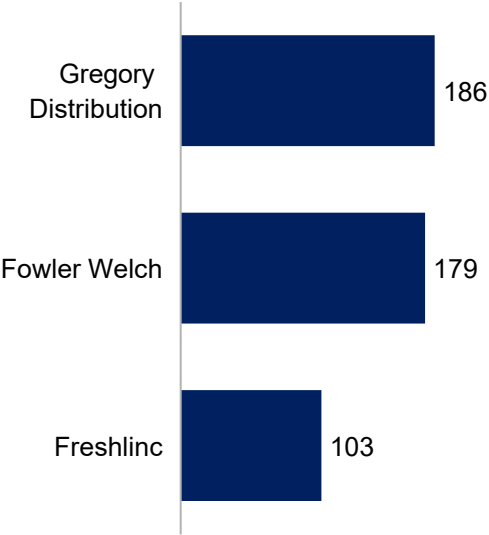
4

## After sales service provider

Prominent players selected based on membership of UK Cold Chain Federation

5

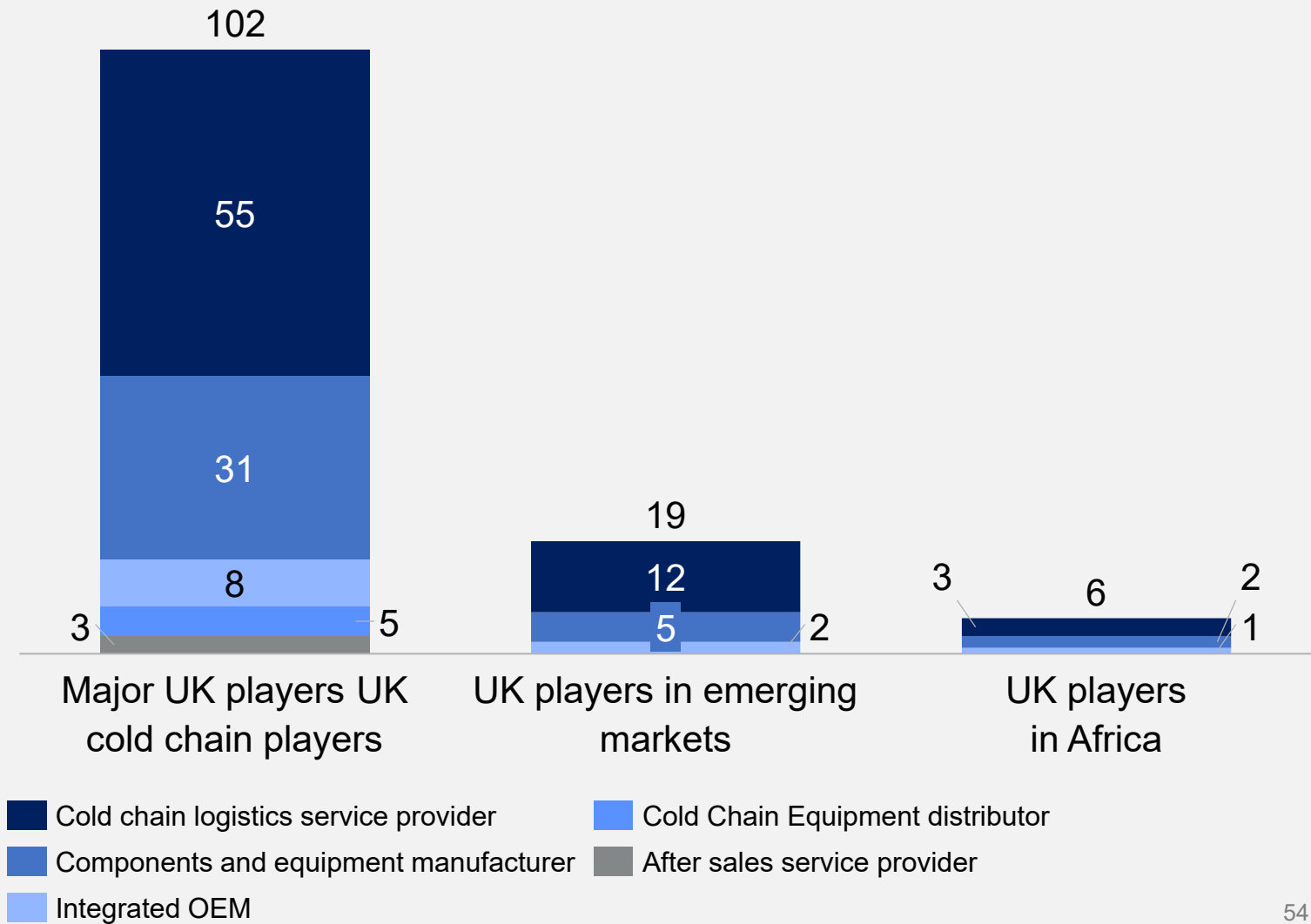
## Cold chain logistics service provider<sup>1</sup>



Valuation (£M)

Of identified players to date, <20% are active in emerging markets and even fewer in Africa

Overview of UK cold-chain players active in emerging markets and in Africa



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# **Insights from West African Cold Chain Summit & Exhibition (WACCSE) 2023**

# Event Highlight | West African Cold Chain Summit & Exhibition (WACCSE) 2023

Annual WACCSE hosted by the Organization for Technology Advancement of Cold Chain in W.Africa...

Event Format	3 day in-person event with exhibition staging area and discussion fora
Attendees	<ul style="list-style-type: none"><li>Exhibitors (including cold chain, packaging &amp; processing companies)</li><li>Government representatives from host country</li><li>Agri-businesses and cold chain players in West Africa</li></ul>
Objectives	<ul style="list-style-type: none"><li>Discuss importance of cold chain industry</li><li>Create awareness on opportunity</li><li>Stimulate investment into cold chain in W.Africa</li></ul>

While sponsored by 'Made in Germany' attended by exhibitors from various countries incl. China and the Netherlands

	12 participants
	11 participants
	10+ participants
	1 participant





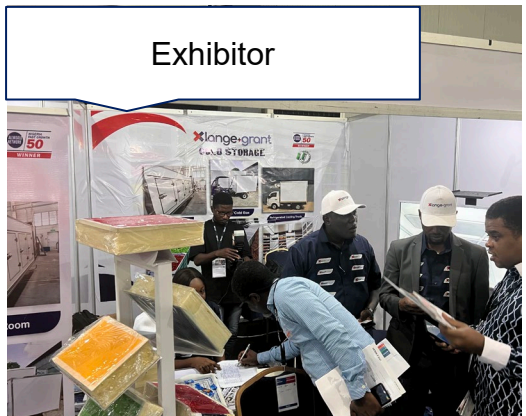
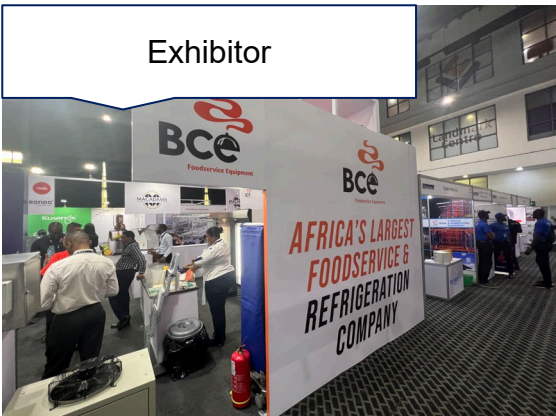
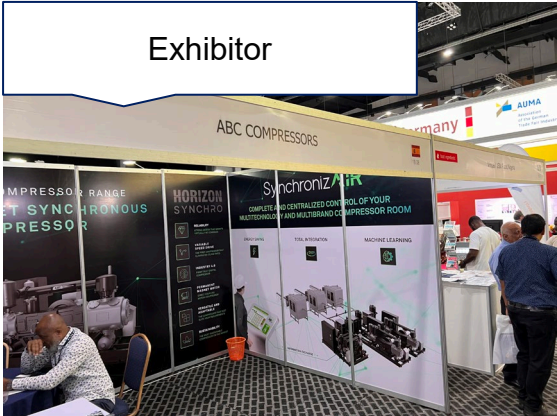
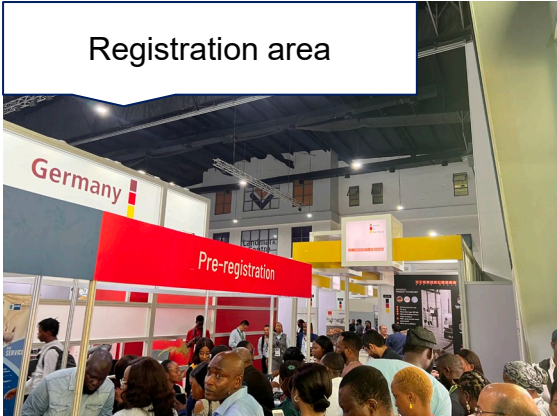




Invited to our event

Note: Exhibitors include processing, packaging and cold chain companies

# Event Highlight | Event experience validated insights from interviews around limited UK cold chain participation





# Financing opportunity assessment

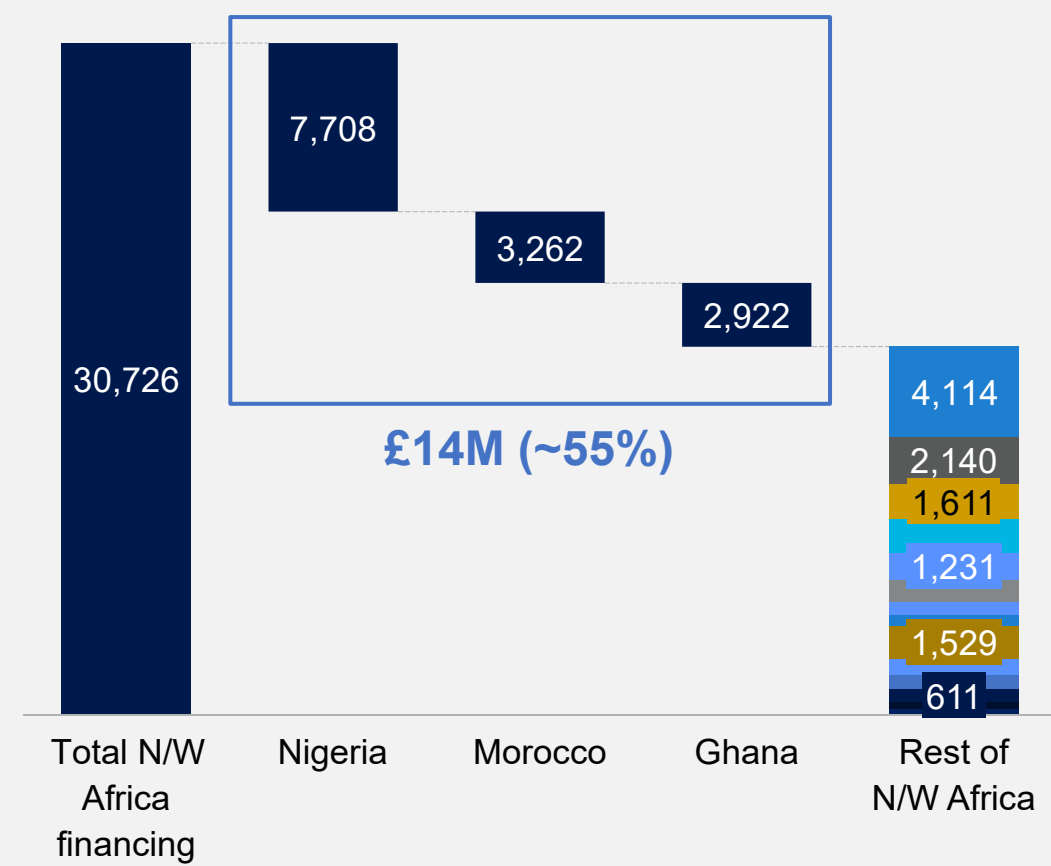
## **Four** questions to understand opportunity space in focus markets

- 1 What is the size of the opportunity in Nigeria, Morocco and Ghana?
- 2 Who are leading players and what is the UK's level of participation?
- 3 What challenges and/or market access barriers do UK players face in participating?
- 4 What are the opportunities identified in Nigeria, Morocco and Ghana?



# We estimate financing opportunity (debt and non-debt) in NW Africa is ~£30B; 3 focus countries 5%

Financing debt and non-debt opportunity size in North & West Africa<sup>1</sup> by country (£ M)



**Financing debt and non-debt opportunity of ~£12bn** for loans to provide credit to smallholders and commercial farms, agri-insurance, export finance and growth capital for businesses via local financial institutions



**Limited access to financing** owing to higher interest rates (Ghana 26%<sup>3</sup>, Nigeria 18%<sup>2</sup>) and lack of credit history and proper documentation (Morocco)



**Ecosystem comprised of different players** (microfinance, fintech's, banks) who offer funding at different rates

1. Figures reflect the average of the lower and upper bound scenarios 2. Trading Economies 3. Bank of Ghana  
Source: FAO database 2021 (ag loans, ag insurance penetration); World Bank 2021; UNEP; The Digitalisation of African Agriculture Report 2018/19, CTA; BCG analysis

## Two general approaches for global financial players to enter market and participate in opportunities

### **Direct investment into a business**

*Unattractive for UK players given fragmented and sub-scale nature of horticulture investment opportunities in emerging markets*



*Our focus*

### **Indirect investment to local Financial Institutions (FIs), who undertake last-mile direct investment**

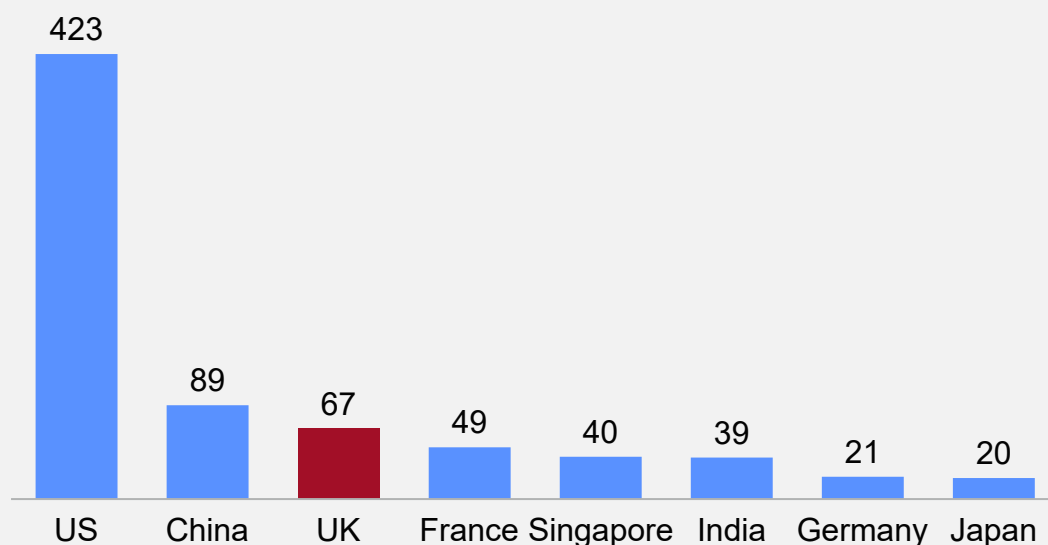
*Enables UK players to engage in opportunities by partnering with local players who have the on-ground expertise and networks and are better equipped to work on smaller deals*

## Recall | **Four** questions to understand opportunity space in focus markets

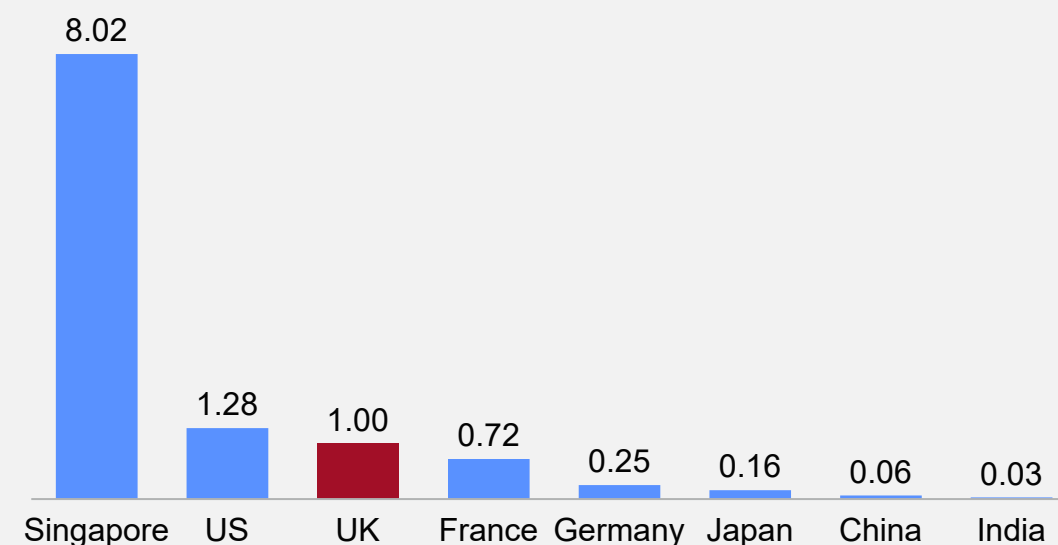
- 1 What is the size of the opportunity in Nigeria, Morocco and Ghana?
- 2 Who are leading players and what is the UK's level of participation?
- 3 What challenges and/or market access barriers do UK players face in participating?
- 4 What are the opportunities identified in Nigeria, Morocco and Ghana?

# UK has a top position in global indirect investment and indirect investment per capita

Total indirect investment: Top 8 countries that invested indirectly (£ bn) Pitchbook (2017-2022)



Total indirect investment per capita: Top 8 countries that invested indirectly per capita (£ '000 per capita) (2017-2022)



# UK has a natural advantage to invest into Nigeria, Morocco and Ghana



**Large size of assets under management**, with the top 100 UK investors having £37 Tn AUM ranking 2<sup>nd</sup> in the world after the US, and 1<sup>st</sup> when taking into account population size



**Historically strong trade and investment relationship** with Anglophone/ Commonwealth countries in Africa, including Nigeria and Ghana



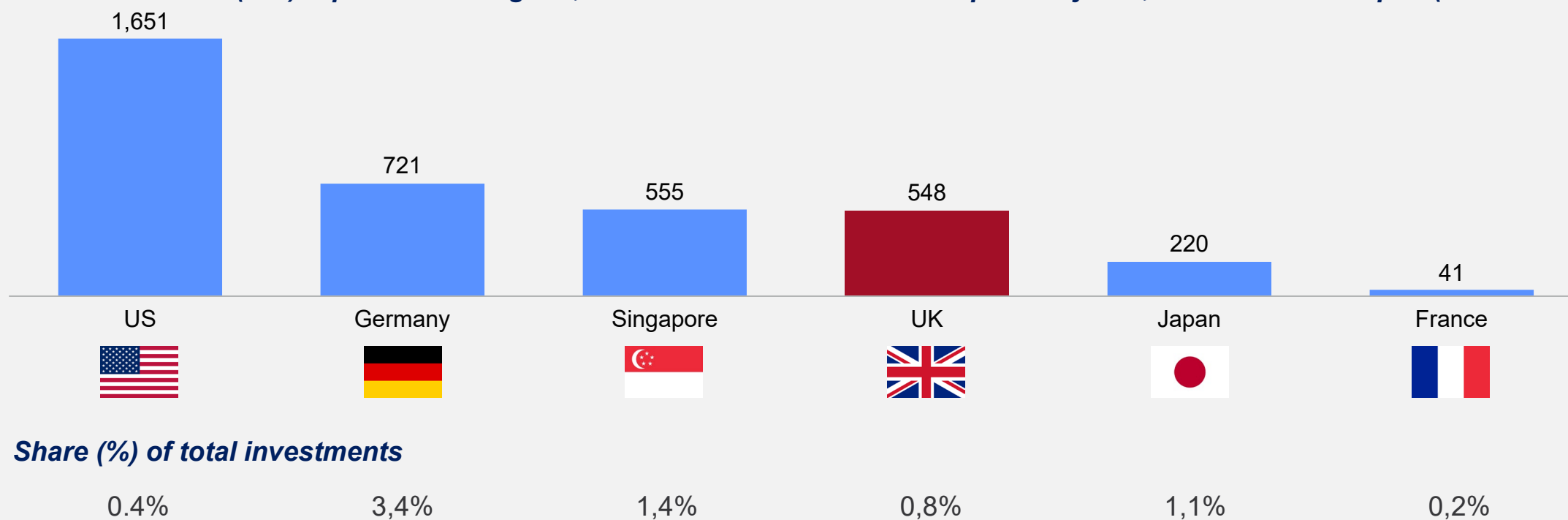
**Similar time zones and close geographic proximity** compared to the US and Asia lends itself to being a natural investment partner with North and West Africa



**Minimal language barrier with predominantly English-speaking countries** such as Nigeria and Ghana

# Despite its natural advantages, UK appears to be underinvesting in the three focus countries vs peers

*Indirect invested (£ M) reported into Nigeria, Morocco and Ghana over the past 10 years, Pitchbook & Prequin (2012-2022)*

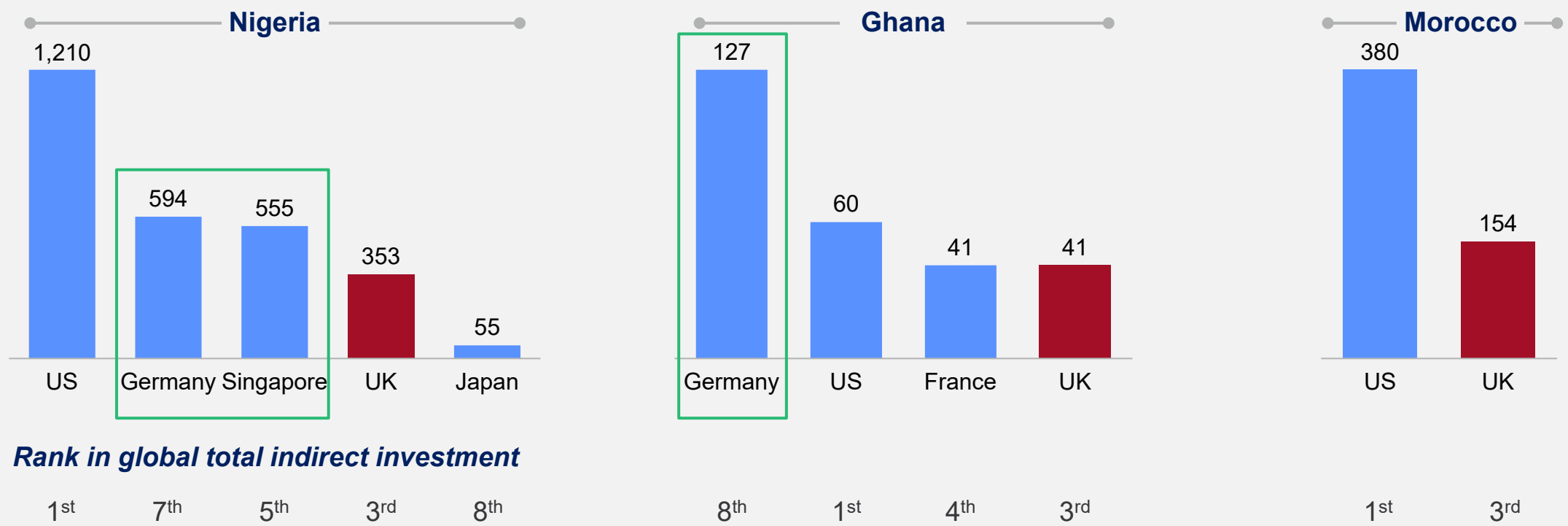


Note: deals included are those disclosed in Pitchbook and Prequin, filtering for investments made to financial institutions (2017-2022) in Nigeria, Morocco and Ghana  
Source: Pitchbook; BCG analysis



# In Nigeria and Ghana not present as other players with smaller global footprint; but active in line with global standing in Morocco

*Reported Indirect invested (£ M) into Nigeria, Morocco and Ghana over the past 10 years, Pitchbook & Prequin (2012-2022)*



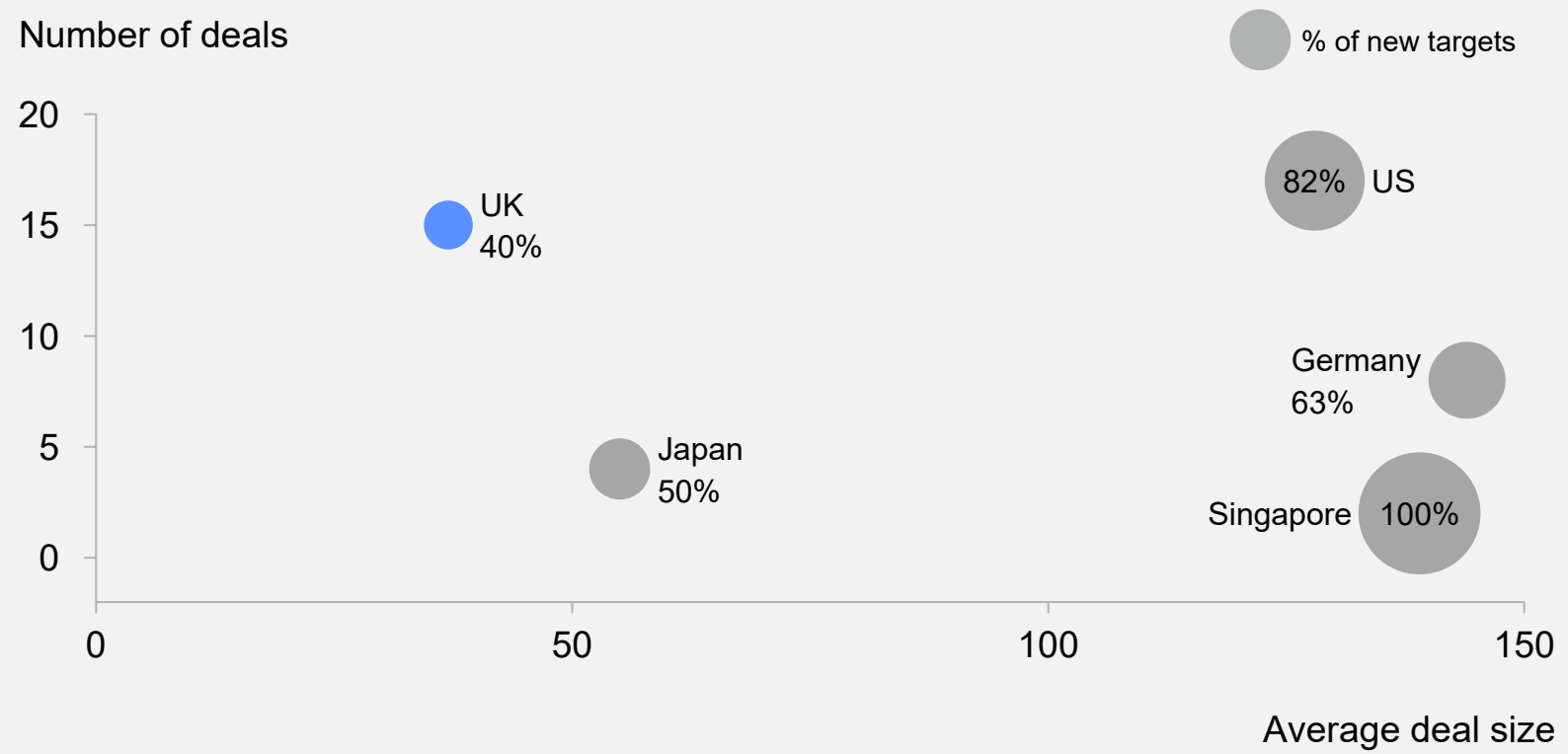
*Experts in Morocco note foreign investors even, traditional partners like France less active*

Note: deals included are those disclosed in Pitchbook, filtering for investments made to financial institutions (2017-2022) in Nigeria, Morocco and Ghana  
 Source: Prequin, Pitchbook; BCG analysis



# Reported deals from the past 10 years suggest UK investors may be behind peers in deal flow, particularly in deal size

*Overview of reported deals made to FIs in Morocco, Nigeria, Ghana in the past 10 years, Pitchbook & Prequin (2012-2022)*





Regional average deal size is £102M and median deal is £55M – **UK deal size is behind both benchmarks**

**!** UK investors appear to be less able to identify new and materially sized targets...  
...and therefore, tend to invest lower ticket sizes, into the same companies

Key to understand the drivers of relevantly weaker deal flow by size

# Deep-dive | Deals made by Germany and the US into Nigeria, Morocco and Ghana

	Investee	Country	Number of investments	Investors	Deal size (£M)
	Fidelity Bank Ghana	Ghana	1	DEG	127
	UT Bank	Ghana	1	DEG	n/a
	Kuda	Nigeria	3	Target Global	12-55
	Union Bank of Nigeria	Nigeria	1	African Development Corporation	500
	AB Microfinance	Nigeria	2	AccessHolding, KfW	n/a
	GHL Bank	Ghana	2	DFC, First National Bank	60
	UT Bank	Ghana	1	IFC Asset management	n/a
	People's Pension Trust	Ghana	1	Drapers Richards Kaplan Found/	0,3
	AB Microfinance Bank	Nigeria	1	IFC	n/a
	Bongalow	Nigeria	2	Techstars, Magic Fund	0,12-0,45
	AB Microfinance Bank	Nigeria	2	AccessHolding, KfW	n/a
	Carbon	Nigeria	1	Google for Startups Accelerator	n/a
	Diamond BankEd	Nigeria	1	IFC Asset management	70
	EdFin Microfinance	Nigeria	1	Gray Matters Capital	5,06
	Fortis	Nigeria	1	Equator Capital Partners	4,89
	Kuda	Nigeria	2	Valar Ventures	28-55
	Banque Populaire SA	Morocco	1	The Carlyle Group, IFC	190

# Deep-dive | Deals made by the UK into Nigeria, Morocco and Ghana



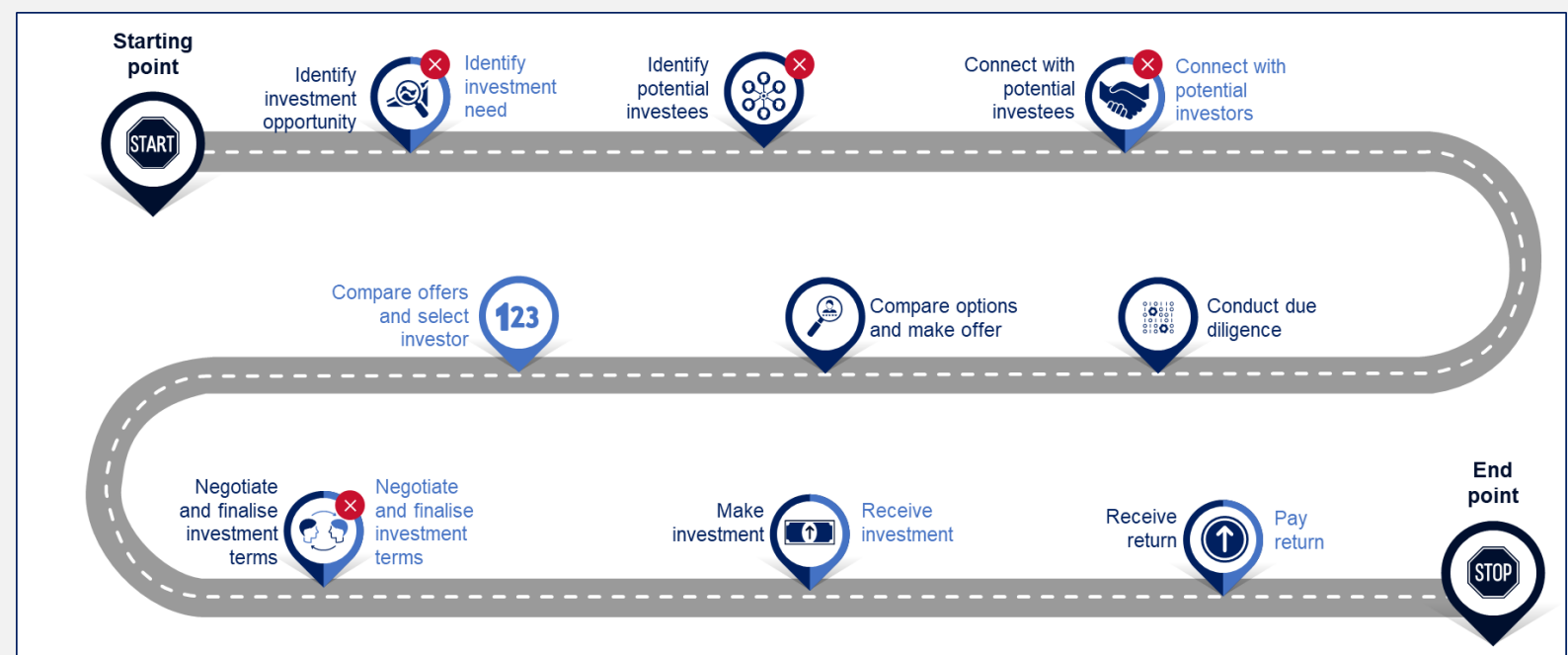
Investee	Country	Number of investments	Investors	Deal size (£M)
CAL Bank	Ghana	1	BII	41,13
Fidelity Bank Ghana	Ghana	1	Leapfrog Investments	n/a
ARM Pension Manager	Nigeria	2	Leapfrog Investments, Helios (FCDO)	50
Diamond Bank	Nigeria	1	Actis	102,44
Kuda	Nigeria	5	Startupbootcamp, Eko Capital, Entee Capital, ODBA, Outrun Ventures	0,02-55
Bank of Africa	Morocco	1	BII	154

## Recall | **Four** questions to understand opportunity space in focus markets

- 1 What is the size of the opportunity in Nigeria, Morocco and Ghana?
- 2 Who are leading players and what is the UK's level of participation?
- 3 What challenges and/or market access barriers do UK players face in participating?
- 4 What are the opportunities identified in Nigeria, Morocco and Ghana?



# Methodology | Practical approach to **unpack why UK investors seem to struggle with deal flow relative to peers** leveraging investor and expert insights and desk research



20+

UK, Nigeria, Ghana, Morocco investor and expert interviews



5+

Expert interviews, and desk research

# Challenges are mainly linked to information asymmetry and manifest under 2 broad themes

Limited UK investor visibility relative to other countries

“When I think about **forums for investors and funds to meet**, I can think of many things, especially accelerator type mechanisms from the US, but **I can't think of much from the UK**" – West African VC fund

"BII is definitely more active and present than US equivalent. **But I can only think about one or two other UK private sector investors**; whereas so many US companies come to mind" – Nigerian VC fund

UK investment approach ill-suited to and less competitive in NW Africa

“**British are happy to invest, but not get their hands dirty**. You see many players from other countries on-the-ground but UK investors sit behind spreadsheets in London" – Large West African bank

"Other countries seem to energise the full ecosystem with speed, flexibility and commitments; **they engage not only with the fund managers but also provide technical support**" – Pan-African VC Fund

"**We always engage with BII and tell us to come back when we are bigger. But this is Africa, so businesses are typically smaller**. If you want to play you need to have appetite for small businesses. **Unlike the British, the Americans are just playing ball**" – West African Fund and HoldingCo

"The presence of DFIs as lead investors (vs co-investors) **creates the perception that there isn't a commercial opportunity in NW Africa**; maybe its just a perception" – West African PE fund

## **Barriers | Interviews, evidence of previous transactions and desk research do not highlight major regulatory impediments to indirect investment**

However, experts note that UK investors tend to take a more cautious approach to due diligence to ensure compliance with the Bribery Act which is considered one of the toughest in the world...

"There is a lot more rigour in due diligence versus other countries given the UK regulations, and this drives slowness, although this isn't the only reason they are slow"  
– DBT Ghana

...and this sometimes makes UK players less competitive relative to peers from other countries that face less stringent laws. This points to a role for diplomatic engagement to level competitive playing fields

"Where we do need is help to level the playing field for investments. When you find yourself on the ground and hustling for projects, you really start to see the difference between us and what others are allowed to do to. We need everyone to play above board, not just us" – UK investor in African markets

## Recall | **Four** questions to understand opportunity space in focus markets

- 1 What is the size of the opportunity in Nigeria, Morocco and Ghana?
- 2 Who are leading players and what is the UK's level of participation?
- 3 What challenges and/or market access barriers do UK players face in participating?
- 4 What are the opportunities identified in Nigeria, Morocco and Ghana?

# A number of themes about the UK and focus countries emerged as we examined opportunities

## United Kingdom



- UK is a **leading global financing player** but slightly weaker in focus markets
- Financing opportunity requires **platform play that aggregates** across markets to mitigate risk, favouring PE funds & payments (fintechs)
- In financing, UK **quite active in Nigeria & Ghana** especially from BII, **less so in Morocco**

## Nigeria



- **Largest market in W. Africa**; UK present in financing
- Largest opportunities in **financing through PE/VC funds, fintech's and banks**
- UK DFI's (e.g. BII) recognised and active, but **private UK investors are less active**, esp. compared to other countries
- Leading investors (US, UAE & China) **injecting capital as well as technical advisory**

## Morocco



- **Leading market in N. Africa**, with strong trade flows to Europe and the Middle East
- Largest opportunities in **financing PE/VC funds**
- **Larger finance opportunities** led by US, Middle East funders; **UK investors not present**
- **Limited historic ties** and **language barrier** creates challenge for UK players

## Ghana



- **Smallest of 3 markets**; UK present in financing
- Largest and most mature market opportunities in **financing PE/VC funds**
- Financing opportunities are much smaller requiring investors with **appetite for consolidating small ventures**
- UK DFI's **plays in more mature investments**; but limited private investors active

# Opportunities | 7 opportunities identified, of which 3 are considered high potential

## VC funds



Debt and/or equity to VC firms in Nigeria, Morocco and Ghana

## PE Funds



Debt and/or equity to PE firms in Nigeria, Morocco and Ghana

## Fintechs



Debt and/or equity to fintech in Nigeria and Ghana

## Banks



Debt and/or equity to banks



Debt and/or equity to banks

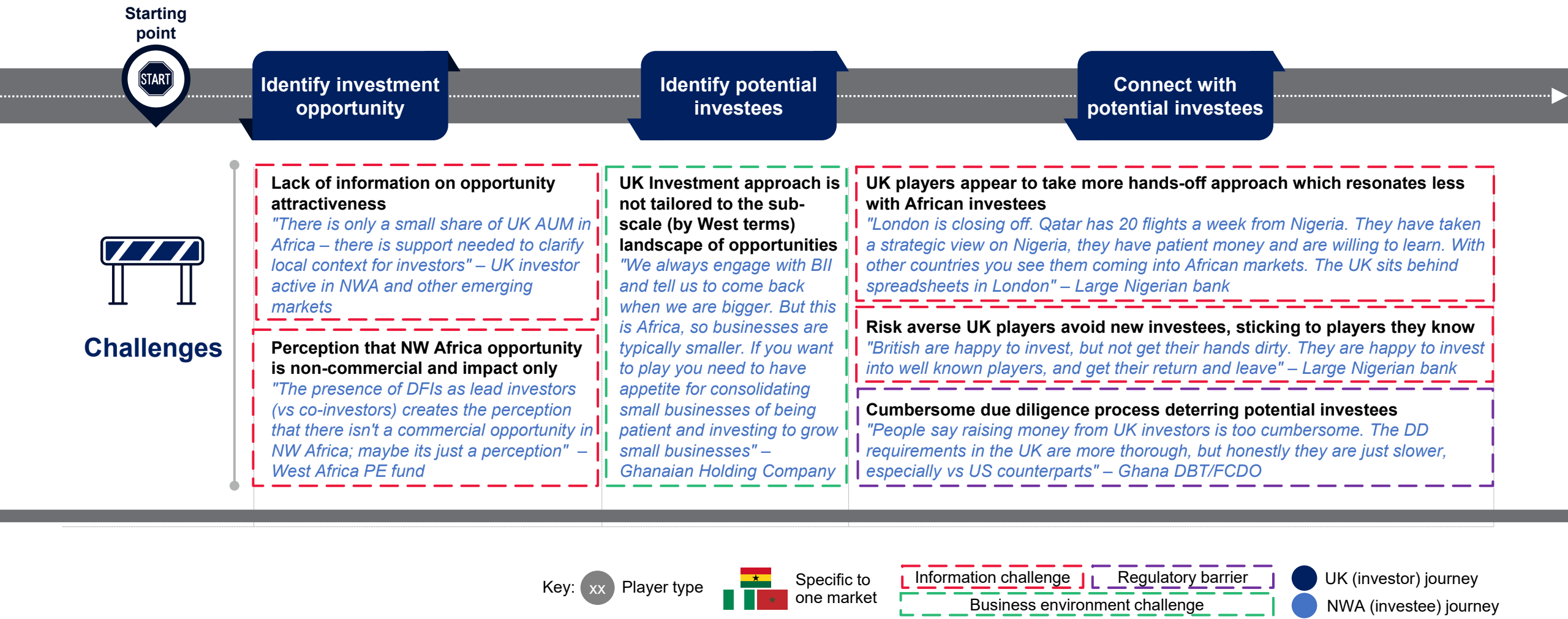


Debt and/or equity to banks

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# Challenges across the financing journey

# Back-up: Information asymmetry is the key challenge facing UK investors in Nigeria, Morocco and Ghana (1 of 3)




# Back-up: Information asymmetry is the key challenge facing UK investors in Nigeria, Morocco and Ghana (2 of 3)






Connect with potential investees (cont.)

Connect with potential investors

<p><b>Local government crowd outs private sector investment opportunities</b> <i>"Morocco is a kingdom so the market is quite different. A lot of funding comes from the government or is state affiliated. The ecosystem is heavily moderated"</i> – Nigerian VC firm</p>	<p><b>Perception that UK is uninterested in NW Africa given limited information about UK participation</b> <i>"We have only had one UK investor – BII. I don't know if they were understaffed or didn't know the context or were uninterested, but it wasn't a good fit"</i> – Nigerian VC Firm</p> <p><b>Limited track record in horti relative to others; limit interest from NW Africa FI</b> <i>"They need to demonstrate some track record in agri investments. We want people who understand the nature of the agri business and so far we haven't seen so much from"</i> – Large Nigerian bank</p> <p><b>UK investment approach often does not consider the full ecosystem</b> <i>"Other countries seem to energise the full ecosystem with speed, flexibility and commitments; they engage not only with the fund managers but also provide technical support"</i> – Ghanaian VC Fund</p> <p><b>Bureaucratic visa process and limited options for business travel limit business engagement between NW Africa and UK</b> <i>"The UK should be the natural choice for business for Africa – its geographically closer than US and time-zones are very similar. But they are falling behind. Making the trip to UK easier, i.e., visas could will unlock business relationships and opportunities"</i> – Nigerian VC fund</p>
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Key:  Player type


   Specific to one market

Information challenge

Regulatory barrier

Business environment challenge

 UK (investor) journey

 NWA (investee) journey

# Back-up: Information asymmetry is the key challenge facing UK investors in Nigeria, Morocco and Ghana (3 of 3)

Negotiate and finalise investment terms



End point

  
Challenges



- Strict regulation on UK finance projects that do not match the NW Africa realities limit opportunities**  
*"Restrictions on project finance do not match realities of investing in frontier markets. ECB used to have policy that gave relief on project finance lending, but now the requirements are highly limiting" – Multinational UK Bank*
- Limited risk mitigation mechanisms to manage default payments and FX drive investment prices up**  
*"The 2 places which lend into Nigeria the most, before FX issues were US and UK. When everything is stable, all good. But we lose investors when FX is volatile because the options to hedge risk are challenging" – Large Nigerian bank*
- Insufficient DFI support for private capital to unlock low interest rates drives up investment prices and makes UK players less competitive**  
*"Businesses need access to low-interest debt which is limited on the continent (Africa). DFIs can provide structures which unlock more low interest debt, e.g., take on additional risk, allowing other lenders to provide debt at a lower interest. There is not enough low interest-rate debt, i.e., DFIs are not doing enough" - seasoned UK investor active in North and West Africa*



Key:  Player type

  Specific to one market

 Information challenge  Regulatory barrier  
 Business environment challenge


 UK (investor) journey  
 NWA (investee) journey

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# Deep-dive of financing opportunities

# Deep-dive: Invest in Venture Capital funds in Morocco

Overall  
assessment



Opportunity type

☐ Trade

☒ Investment

Category

☐ Cold chain products

☐ Cold chain services

☒ Financing

☐ Other

Description

Invest debt or equity in venture capital funds to provide growth capital to business across North Africa primarily Morocco

Opportunity size

- £200Mn – Morocco

Current key competitors

- US - £200M
- UAE – Undisclosed
- Germany – Undisclosed

Summary of assessment justification

Rising VC funding to Morocco

Morocco Gov't supporting VC investment

UK leading provider of VC funding

Why Morocco

- Strong and growing demand for early stage funding:** Funding to SMEs and start-ups is still dominated by the bank sector who are more risk averse leading to 70% loans being unaddressed which represented around £1bn<sup>1</sup> of funding
- Morocco is a favoured partner for venture funding:** 63% of VC fundraising between 2017-2021 came from foreign capital, including 52% from international development agencies and 59% from European sources<sup>2</sup>
- Supported by Moroccan government:** The Ministry of Economy and Finance (MoEF) and Morocco Guarantee and SME Finance Corp (CCG)<sup>3</sup>, created the Innov Invest Fund to enhance the access to finance for SMEs and start-ups in Morocco

Why UK



- Leading VC funder with track record in Africa:** The UK ranks as the 2<sup>nd</sup> most active Venture Capital funder, with ~£22Bn of venture capital deployed in 2022<sup>4</sup>: also within Africa, BII is a well recognised DFI with established programmes and funding
- Technical ability and support services:** UK VC players also possess accounting, governance and legal know-how required to support VC deals
- UKTI designing policies to bridge language barriers:** UK has designed services (e.g. student placement schemes<sup>5</sup>) to help UK firms bridge language and cultural diversity in non-Anglophone markets



Potential VC firms



VC and early stage funds

Seed investment firms

Investment banks with agri-business focus











Potential UK investors



Funds with focus on EM/Africa or agriculture

Development Finance Institutions

TBD








1. Statista 2. AMIC 3. GOV.MA 4. GOV.UK 5. GOV.UK  
Source: BCG research

# Deep-dive: Invest in Private Equity funds in Morocco

Overall assessment



Opportunity type

☐ Trade

☒ Investment

Category

☐ Cold chain products

☐ Cold chain services

☒ Financing

☐ Other

Description

Invest debt or equity in private equity funds to provide growth capital to business across North Africa primarily Morocco

Opportunity size

- £270Mn – Morocco

Current key competitors

- US - £200M
- UAE – Undisclosed
- Germany – Undisclosed

Summary of assessment justification

Low access to affordable finance for horticulture in Morocco

High returns on equity investments

UK investors active in North Africa PE space

Why Morocco

- Growing demand for equity funding for horticulture:** Agriculture credit demand at £XMn and expected to grow at x% over 5 years mostly for horticulture ventures focused on production expansion and value chain strengthening
- African equity funds offer attractive returns:** Data suggest an average return of 15%<sup>1</sup> from investments in African equity funds outperforming the FTSE 100 at 10%
- Improving exit opportunities:** Private equity funders are optimistic that exits will increase over the following three-to-five years either through IPO's or trade buyers

Why UK


- Leading private equity player active in region:** Large UK PE investments (disclosed AUM of £38Tn<sup>3</sup>) and ranked the 5<sup>th</sup> most active investor on deal numbers in North Africa
- Preference for fund managers on the continent:** UK PE investors increasingly shifting towards Africa based managers who posses operational expertise (e.g., BII has established track record with AfricInvest and invested in its Maghreb PE Fund II and IV)
- Can offer permanent capital vehicles (PCVs):** PCVs offer a longer timeline to allow funds ride out short-term volatilities, more aligned to African portfolio companies

Potential PE Frims

Local private equity funds focused on Agriculture

Local Venture capital hubs

Investment banks with agri-business focus



Potential UK investors

Funds with focus on EM/Africa or agriculture

Development Finance Institutions


TBD



Note: see "opportunity sizing" Excel for detailed assumptions behind each model  
1. [Private Equity Int'l](#) 2. [Disrupt Africa](#) 3. Prequin  
Source: BCG research

# Deep-dive: Invest in Venture capital funds in Nigeria

Overall assessment



Opportunity type

☐ Trade

☒ Investment

Category

☐ Cold chain products

☐ Cold chain services

☒ Financing

☐ Other

Description

Invest debt or equity in venture capital funds to provide growth capital to business across West Africa primarily Nigeria

Opportunity size

- £890Mn – Nigeria

Current key competitors

- US - £700M
- UAE – Undisclosed
- Germany – £500M

Summary of assessment justification

Rising demand for early stage funding in Nigeria

Nigeria leading VC funding on the continent

Established trade and investment between Nigeria and the UK

Why Nigeria

- Rising demand for funding:** In 2020, credit demand rose 20% yoy to £100Bn<sup>1</sup> (10% of GDP), and is expected to keep rising to match up to Africa peer average of 30%<sup>2</sup>
- Nigeria is the leading destination for VC funding in Africa:** Out of £4Bn start-up funding that Africa received in 2021, Nigeria earned the largest chunk of ~£1Bn<sup>3</sup>
- Established Nigeria-UK trade flows:** Over the last 5 years the average value of goods and services traded between both countries has averaged £6Bn<sup>4</sup>
- Attractive returns on investments:** VC investments in Nigeria with disclosed average returns of ~20%<sup>5</sup> in last 5 years outperforming the 10-yr UK Govt bond at 5%<sup>6</sup>

Why UK

- Established VC funder active in region:** The 10 largest UK VC firms with average disclosed AUM of £3bn<sup>7</sup> are all active early stage investors in West Africa
- BII is a leading VC funder in Nigeria:** Nigeria is the BII's biggest investment market in Africa, with a portfolio of nearly £600Mn, through over 100 businesses and 43 funds<sup>8</sup>
- Well established investment corridor between UK and Nigeria:** In 2021, FDI from the UK into Nigeria was £3.4Bn (0.2% of total UK outward FDI stock)<sup>9</sup>

Potential VC firms

VC and early stage funds

Seed investment firms

Potential UK investors

Funds with focus on EM/Africa or agriculture

Development Finance Institutions

Asset Management firms


 

1. CBN 2. World Bank 3. The Big Deal 4.Gov.UK 5. AVCA 6. Prequin 7. Statista 8. BII 9. GOV.UK  
Source: BCG research

# Deep-dive: Invest in Private Equity funds in Nigeria

Overall assessment



Opportunity type

☐ Trade

☒ Investment

Category

☐ Cold chain products

☐ Cold chain services

☒ Financing

☐ Other

Description

Invest in debt or equity in private equity funds to provide growth capital to business across West Africa primarily Nigeria

Opportunity size

- £1.2Bn – Nigeria

Current key competitors

- US - £700M
- UAE – Undisclosed
- Germany – £500M

Summary of assessment justification

Low access to affordable finance in Nigeria

High returns on equity investments

Leading recipient of UK PE funding in West Africa

Why Nigeria

- Growing international investor interest:** Private equity funds in Nigeria reached £1Bn in 2020<sup>1</sup>, with 20% from African investors, underscoring the growing interest of investors in Nigeria’s economy
- Attractive returns on investment:** Data suggest an average return of 15%<sup>2</sup> from investments in African equity funds outperforming the FTSE 100 at 10%
- More developed PE exit strategy:** Nigeria accounted for ~50% of PE exits by number in West Africa from 2010 to 2020<sup>3</sup> including Actis’ sale of Ikeja City Mall to HyProp and Attacq and ECP’s exit from Continental Reinsurance

Why UK










- Leading private equity player active in region:** Large UK PE investments (disclosed AUM of £38Tn) and ranked the 5<sup>th</sup> most active investor on deal numbers in West Africa<sup>4</sup>
- Preference for fund managers based in Nigeria:** UK PE investors are increasingly shifting preference towards Africa based managers who posses operational expertise (e.g., BII’s £20Mn investment in mobility fintech Moove<sup>5</sup> and Duet PE Ltd £50Mn in Ajeast a Nigerian beverage company<sup>6</sup>)
- Can offer permanent capital vehicles (PCVs):** PCVs offer a longer fund life that enables funds to ride out short-term volatilities, which is more aligned hold to African portfolio companies (e.g. In 2020, Helios was provided with a long-term PCV from xx<sup>7</sup> )

Potential Funds

Local private equity funds focused on Agriculture

Local Venture capital hubs

Investment banks with agri-business focus



Potential UK investors

Funds with focus on EM/Africa or agriculture

Development Finance Institutions


TBD



1. AVCA 2. Private Equity Int'l 3. AVCA 4. Pitchbook 5. BII 6. CNN 7. xx  
Source: BCG research

# Deep-dive: Debt capital to banks in Nigeria

Overall assessment



Opportunity type

☐ Trade

☒ Investment



Category

☐ Cold chain products

☐ Cold chain services

☒ Financing

☐ Other

Description			
Provide debt capital for on-lending to commercial, specialised and investment banks and debt funds in Nigeria			
Opportunity size	Current key competitors		Summary of assessment justification
<ul style="list-style-type: none"><li>£20Mn – Nigeria</li></ul>	<ul style="list-style-type: none"><li>US - Undisclosed</li><li>UAE – Undisclosed</li><li>Germany – Undisclosed</li></ul>		<p>Low access to affordable finance for horticulture</p> <p>Local lenders with strong credit rating</p> <p>UK investors with affordable/concessional rates</p>
Why Nigeria		Why UK	
<ul style="list-style-type: none"><li><b>Rising demand for credit:</b> In 2020, credit demand rose 20% yoy to £100Bn<sup>1</sup> (10% of GDP), and is expected to keep rising to match up to Africa peer average of 30%<sup>2</sup></li><li><b>... but limited availability of credit:</b> Local banks lending constrained by smaller loan books (only 5 banks with above £5Bn in assets<sup>3</sup>), stringent regulatory framework (above CRR at 30%<sup>4</sup>) and a short (but growing) supply of credit bureaus</li><li><b>Attractive returns on investments:</b> Nigerian banks and debt funds average returns at ~20%<sup>5</sup> over the last 5 years outperforming the 10-yr UK Govt bond at 5%<sup>6</sup></li></ul>		<ul style="list-style-type: none"><li><b>Well established investment flows between UK and Nigeria:</b> In 2021, FDI from the UK into Nigeria was £3.4Bn (0.2% of total UK outward FDI stock)<sup>9</sup></li><li><b>Track record of offering concessional funds:</b> UK has offered concessional loans with generous terms including below-market interest rates, grace periods or both to Nigeria with an average ticket size of £150Mn annually<sup>8</sup></li></ul>	
Potential Banks and funds		Potential UK investors	
<p>Commercial banks with agriculture mandate</p> <p>Specialised trade and agriculture banks</p> <p>Investment banks with agri-business focus</p>		<p>Funds with focus on EM/Africa or agriculture</p> <p>Development Finance Institutions</p> <p>TBD</p>	
			


Note: see "opportunity sizing" Excel for detailed assumptions behind each model

1. [CBN](#) 2. [World Bank](#) 3. [Press report](#) 4. [CBN](#) 5. Bloomberg 6. GOV.UK 7. [Bloomberg](#) 8. [GOV.UK](#)

Source: BCG research

# Deep-dive: Invest in venture capital funds in Ghana

Overall assessment



Opportunity type

☐ Trade

☒ Investment

Category

☐ Cold chain products

☐ Cold chain services

☒ Financing

☐ Other

Description

Invest debt or equity in venture capital funds to provide growth capital to business across West Africa primarily Ghana

Opportunity size

- £180Mn – Ghana

Current key competitors

- US - £100M
- UAE - Undisclosed
- Germany - £130M

Summary of assessment justification

Rising demand for early stage funding in Nigeria

Leading VC fund destination in W. Africa

Established trade and investment between Ghana and the UK

Why Ghana

- Ghana is the leading destination for VC funding in W. Africa:** In 2021, Ghana received ~£300mn<sup>1</sup> in VC funding, the second largest ticket in the region
- Most attractive economy in SSA:** Economic growth averaged 6% in 2023, well above the SSA average of 4%<sup>2</sup>
- Rising trade between Ghana-UK:** Total trade in goods and services between the UK and Ghana was £2Bn 2022, an increase of 60% or £690 million from previous year<sup>3</sup>

Why UK

- Established VC funder active in region:** The 10 largest UK VC firms with average disclosed AUM of £3bn<sup>4</sup> are all active early stage investors in West Africa
- BII is a leading VC funder in Ghana:** Nigeria is the BII's biggest investment market in Africa, with a portfolio of nearly £600Mn, through over 100 businesses and 43 funds<sup>5</sup>
- Well established investment corridor between UK and Ghana:** In 2021, the outward stock of foreign direct investment (FDI) from the UK in Ghana was £3Bn accounting for 0.1% of the total UK outward FDI stock<sup>6</sup>

Potential Banks and funds

VC and early stage funds

Seed investment firms



Potential UK investors

Funds with focus on EM/Africa or agriculture

Development Finance Institutions


TBD



1. BoG 2. The Big deal 3. GOV.UK 4. Statista 5. BII 6. GOV.UK  
Source: BCG research

# Deep-dive: Invest in Private Equity funds in Ghana

Overall assessment



Opportunity type

☐ Trade

☒ Investment

Category

☐ Cold chain products

☐ Cold chain services

☒ Financing

☐ Other

Description

Invest in equity fund-of funds to provide growth capital to Agri-business ventures in Ghana

Opportunity size

- £250Mn – Ghana

Current key competitors

- US - £100M
- UAE - Undisclosed
- Germany - £130M

Summary of assessment justification

Low access to affordable finance for horticulture in Ghana

High returns on equity investments

UK investors active in West Africa PE space

Why Ghana

- Attractive investment destination:** With GDP growth rate (5.4%) higher than global economy (2.9%) and most of Sub-Saharan Africa (3.8%)<sup>1</sup>, Ghana is an attractive investment destination
- Track record of equity investments in financial sector:** Ghana is the 5<sup>th</sup> largest recipient of equity funding in Africa at ~£120Mn in 2020<sup>2</sup>. Lending fintech's lead the pack accounting for 65% of total PE funds via a mix of new investments and add-ons to existing investments e.g. biggest deals where Dash (£30M), Fido Credit (£30Mn)
- Successful exits:** Upon maturity, inventors can exit either by way of sale of the investment to other private equity fund or listing on the stock exchange via IPO's

Why UK

- Leading private equity player active in region:** Large UK PE investments (disclosed AUM of £38Tn<sup>3</sup>) and ranked the 5<sup>th</sup> most active investor on deal numbers in North Africa
- Preference for fund managers based on the continent:** UK PE investors are shifting preference towards Africa based managers who posses operational expertise (
- Can offer permanent capital vehicles (PCVs):** PCVs offer a longer fund life that enables funds to ride out short-term volatilities, which is more aligned hold to African portfolio companies

Potential Funds

Local private equity funds focused on Agriculture

Local Venture capital hubs

Investment banks with agri-business focus









Potential UK investors

Funds with focus on EM/Africa or agriculture

Development Finance Institutions

TBD














1. World Bank 2. The Big Deal 3. Prequin  
Source: BCG research

# Deep-dive: Debt capital to banks in Morocco

Overall assessment



Opportunity type

☐ Trade

☒ Investment

Category

☐ Cold chain products

☐ Cold chain services

☒ Financing

☐ Other

Description

Provide debt capital for on-lending to commercial, specialised and investment banks and debt funds in Morocco

Opportunity size

- £15Mn – Morocco

Current key competitors

- US - TBD
- UAE - TBD
- Spain - TBD
- Germany - TBD

Summary of assessment justification

Low access to affordable finance for horticulture

Local lenders with strong credit rating

UK investors with designated funds at affordable/concessional rates

Why Morocco

- Strong and growing demand for debt especially agri-lending:** Credit demand up 10% yoy to £80Bn in 2022<sup>1</sup> driven by consumer loans and CAPEX financing. Agri-sector lending is also growing with an estimated 3-yr CAGR of 5%<sup>2</sup> ; from production & processing (e.g., species, olive oil), export enablement and equipment lease financing
- Attractive returns on investments:** Moroccan banks and debt funds average returns at ~10%<sup>3</sup> over the last 5 years outperforming the 10-yr UK Govt bond at 5%
- Diverse players with strong credit rating:** Fitch awarded AA ratings to the top 5 banks who account for 70% of banking assets<sup>6</sup>, positioning Moroccan banks as a great recipient of foreign debt investment

Why UK


- Designated funds for disbursement to Morocco trade:** The UKEF has designated £4Bn<sup>7</sup> to be disbursed as loans through DFI's and financial institutions for projects that boost UK-Morocco trade ties
- Track record of offering concessional funds:** UK has offered concessional loans with generous terms including below-market interest rates, grace periods or both to developing countries with an average ticket size of £150Mn annually<sup>8</sup>

Potential Banks

Commercial banks with agriculture mandate

Specialised trade and agriculture banks

Investment banks with agri-business focus




Potential UK investors

Funds with focus on EM/Africa or agriculture

Development Finance Institutions

TBD




Note: see "opportunity sizing" Excel for detailed assumptions behind each model

1. [Financial Times](#) 2. [iD4D](#) 3. [The Global economy](#) 4. [USDA](#) 5. [African Business](#) 6. [Fitch Ratings](#) 7. [GOV.UK](#) 8. [GOV.UK](#) 9. TBD

Source: BCG research

# Deep-dive: Debt capital to banks in Ghana

Overall assessment



Opportunity type

☐ Trade

☒ Investment

Category

☐ Cold chain products

☐ Cold chain services

☒ Financing

☐ Other

Description

Provide debt capital for on-lending to commercial, specialised and investment banks and debt funds in Ghana

Opportunity size

- £20Mn – Ghana

Current key competitors

- US - TBD
- UAE - TBD
- Germany - £150M

Summary of assessment justification

Low access to affordable finance for horticulture

Local lenders with strong credit rating

UK investors with affordable/concessional rates

Why Ghana

- Rising demand for credit:** In 2020, credit demand rose 20% yoy to £100Bn<sup>1</sup> (10% of GDP), and is expected to keep rising to match up to Africa peer average of 30%<sup>2</sup>
- ... but limited availability of credit:** Local banks lending constrained by smaller loan books (only 5 banks with above £5Bn in assets<sup>3</sup>), stringent regulatory framework (above CRR at 30%<sup>4</sup>) and a short (but growing) supply of credit bureaus
- Attractive returns on investments:** Nigerian banks and debt funds average returns at ~20%<sup>5</sup> over the last 5 years outperforming the 10-yr UK Govt bond at 5%<sup>6</sup>

Why UK



- Track record of offering concessional funds:** UK has offered concessional loans with generous terms including below-market interest rates, grace periods or both to developing countries with an average ticket size of £150Mn annually<sup>8</sup>
- Private UK lenders offer competitive rates vs peers:** The average cost of funds from private sector lenders in the UK at X% vs USA (xx%), UAE (xx%), Germany (xx%), Singapore (xx), China (xx) and Japan (xx)<sup>9</sup>



Potential Banks and funds

Commercial banks with agriculture mandate

Specialised trade and agriculture banks

Investment banks with agri-business focus






Potential UK investors

Funds with focus on EM/Africa or agriculture

Development Finance Institutions

TBD







1. [CBN](#) 2. [World Bank](#) 3. [Press report](#) 4. [CBN](#) 5. xxx 6. XX 7. [Bloomberg](#) 8. [GOV.UK](#)  
Source: BCG research




# **Short-list of prioritised UK businesses/investors and African businesses**

# Separate Excel collating UK investors/businesses and North & West Africa business engaged

Category	Sub-area	Organization	Potential matches	Contact name	Role	E-mail contact	Initial interview Status
Financing		Quick holding	Leapfrog Investments, Apis Partners	Nana Tuyee Yeboah	Co-Founder and Head of	grow.tuyee.yeboah@quickholdingsgroup.com	Conducted
Cold chain		Amo Delta		Michael Cudjoe	Managing Director	michael@amodelta.com	Conducted
Financing		Atlantica Holdings					Conducted
Cold chain		Pinora Limited		Darren Jenkins		info@pinora.com	Conducted
Cold chain		Sam Valley Farms Ltd		De Dues Dixitzi & Ernesto Taricone		info@samvalleyfarms.com	Conducted

Category	Organization	Potential Matches	Geographic activity	Contact name	Role
Investing	British International Investment	Atlantica Ventures, Vested World, Octerra Capital, TLG Capital, Oasis Capital	Active in N&W Africa	Carolyn Sims	Chief Oper
Investing	AgDevCo	Farmcrowdy, Agrofides, Startupbootcamp	Active in N&W Africa	Keith Palmer	Co-Founde
Investing	Actis	Octerra Capital, Atlantica Ventures, First Bank, Lix Capital	Active in N&W Africa	Olufunke Okubadejo	Director, R
Investing	Quick Holdings	Lix Capital, Enko Capital, Vested World, Agrofides	Active in N&W Africa	Vikram Patel	Director, I



HM Government

## Growth Gateway North and West Africa Horticulture Intervention Business Longlist

Longlist of potential commercial partner and pairings

Document description

This excel document provides information about

- Financial investors and cold chain player in North and West Africa engaged by the GG Horti intervention
- Potential commercial partner pairings on financing and cold chain opportunities

Document components

This excel workbook contains a number of sheets

**UK - Investors:** summarizes long list of UK financial investors who have undertaken or could be suited to undertake indirect investment into North and West African markets

**UK - Cold chain:** summarizes long list of UK cold chain players who could be suited to trade with cold chain buyers in North and West African markets

**Ghana, Nigeria, Morocco:** three market-specific sheets that summarize long list of potential cold chain and financial insitutions that could be suitable commercial partners on identified opportunities

*\*Within sheets, contact information and engagement details, where available, are provided*



# Emerging view of high potential matching opportunities

## Financing | Shortlist of potential commercial partners – overview

### UK Player

UK Player	No of N/W Africa Matches
Leapfrog Investments	5
BII	5
Apis Partners	4
Lightrock	4
Actis	4
Hoegh Capital Partners	4
UBS Wealth Management	4
Gemcorp Capital Management	3
Outrun Ventures	2
AgDevCo	2

### NW Africa Players

N/W Africa player	No of UK Matches
Quick Holdings	2
Lix Capital	2
Enko Capital	4
Atlantica Ventures	2
Vested World	3
Oasis Capital (Ghana)	2
Octerra capital	3

N/W Africa player	No of UK Matches
Access Bank	2
First Bank	3
Eco transnational incorporated (ETI)	2
Farmcrowdy	3
Agrofides	3

# Financing | Engagements identify potential matches (1/4)

Preliminary, final update post event

UK Player	Stated interest	Additional information	Potential NW Africa Match	Level of potential
Leapfrog Investments	<ul style="list-style-type: none"> <li>Interested in VC, PE, Banks, Fintechs &amp; others</li> </ul>	<ul style="list-style-type: none"> <li>Invest in equity high-growth, emerging market businesses</li> <li>Large investment firm with average ticket size of £30-50M</li> <li>Provides partners with technical support</li> </ul>	1 <b>Quick Holdings</b> <i>Holding co. with finance and food-related businesses</i>	High potential
			2 <b>Lix Capital</b> <i>Investment facilitator focused on agri and cold chain</i>	Medium potential
			3 <b>Enko Capital</b> <i>Pan-African asset manager with agri-focus</i>	High potential
			4 <b>Vested World</b> <i>Early-stage SSA VC investor</i>	High potential
			5 <b>Agrofides</b> <i>Ghanaian lending and Agfintech</i>	Medium potential
Lightrock	<ul style="list-style-type: none"> <li>Interested in PE &amp; fintechs</li> <li>Wants ESG returns</li> </ul>	<ul style="list-style-type: none"> <li>Primarily invests in growth stage companies</li> </ul>	1 <b>Enko Capital</b> <i>Pan-African asset manager with agri-focus</i>	High potential
			2 <b>Farmcrowdy</b> <i>Nigerian crowd funding Ag.Fintech</i>	High potential
			3 <b>Agrofides</b> <i>Ghanaian lending and Agfintech</i>	Medium potential
			4 <b>Oasis Capital Ghana</b> <i>Sub-Saharan PE firm</i>	High potential

# Financing | Engagements identify potential matches (2/4)

Preliminary, final update post event

UK Player	Stated interest	Additional information	Potential NW Africa Match	Potential assessment
<b>Apis Partners</b>	<ul style="list-style-type: none"> <li>Interested in financial sectors players (Banks, VC, PE Fintech &amp; Others)</li> </ul>	<ul style="list-style-type: none"> <li>Invest in high growth and capital light financial services</li> </ul>	1 <b>TLG Capital</b> Pan African PE firm	High potential
			2 <b>Enko Capital</b> Pan-African asset manager with agri-focus	High potential
			3 <b>First Bank</b> Leading West African bank & financial services company	High potential
			4 <b>Quick Holdings</b> Holding co. with finance and food-related businesses	High potential
			5 <b>Agrofides</b> Ghanaian lending and Agfintech	Medium potential
<b>British International Investment</b>	<ul style="list-style-type: none"> <li>Interested in VC, PE, fintech, Banks &amp; others</li> </ul>	<ul style="list-style-type: none"> <li>Seek opportunities with impact angle (ESG, Gender, Climate)</li> </ul>	1 <b>Atlantica Ventures</b> VC investor mainly on SSA tech start-ups	High potential
			2 <b>Vested World</b> Early-stage SSA VC investor	High potential
			3 <b>Octerra Capital</b> Pan- African, social impact VC investor	High potential
			4 <b>TLG Capital</b> Pan African PE firm	High potential
			5 <b>Oasis Capital Ghana</b> Sub-Saharan PE firm	High potential

Note: High Potential = we engaged with both players, Medium Potential = we engaged with 1 party; Low potential = no engagement, matched based on our understanding of their needs  
Source: Local and foreign investor interviews

# Financing | Engagements identify potential matches (3/4)

Preliminary, final update post event

UK Player	Stated interest	Additional information	Potential NW Africa Match	Level of potential
<b>Gemcorp Capital Management</b>	<ul style="list-style-type: none"> <li>Interested in PE, Banks &amp; Fintech</li> </ul>	<ul style="list-style-type: none"> <li>Family office</li> <li>Invests in large ticket deals</li> </ul>	1 <b>Oasis Capital Ghana</b> Sub-Saharan PE firm	Medium potential
			2 <b>Vested World</b> Early-stage SSA VC investor	Medium potential
			3 <b>Access Bank</b> Leading West African bank & financial services firm	Medium potential
<b>Hoegh Capital Partners</b>	<ul style="list-style-type: none"> <li>Interested in Banks, VC, PE, Banks and fintech's</li> </ul>	<ul style="list-style-type: none"> <li>Family office</li> <li>Invests in large ticket deals</li> </ul>	1 <b>First Bank</b> Leading West African bank & financial services firm	Medium potential
			2 <b>Agrofides</b> Ghanaian lending and Agfintech	Medium potential
			3 <b>Vested World</b> Early-stage SSA VC investor	Medium potential
<b>UBS Wealth Management</b>	<ul style="list-style-type: none"> <li>Interested in VC, PE, Banks, Fintechs &amp; others</li> </ul>	<ul style="list-style-type: none"> <li>Invests in small &amp; large ticket deals</li> <li>Invest both directly and indirectly</li> </ul>	1 <b>Octerra Capital</b> Pan- African, social impact VC investor	Medium potential
			2 <b>Enko Capital</b> Pan-African asset manager with agri-focus	Medium potential
			3 <b>Access Bank</b> Leading West African bank & financial services firm	Medium potential
			4 <b>Vested World</b> Early-stage SSA VC investor	Medium potential

# Financing | Engagements identify potential matches (4/4)

Preliminary, final update post event

UK Player	Stated Interest	Additional information	Potential NW Africa Match	Level of potential
<b>Actis</b>	<ul style="list-style-type: none"> <li>Interested in Banks, Fintech's and Others</li> <li>Also wants infrastructure investments</li> </ul>	<ul style="list-style-type: none"> <li>Invests in range of (&lt;£5M) and large ticket deals (&gt;£100m)</li> </ul>	1 <b>Octerra Capital</b> <i>Pan- African, social impact VC investor</i>	High potential
			2 <b>Atlantica Ventures</b> <i>VC investor mainly on SSA tech start-ups</i>	High potential
			3 <b>First Bank</b> <i>Leading West African bank &amp; financial services company</i>	High potential
			4 <b>Lix Capital</b> <i>Investment facilitator focused on agri and cold chain</i>	High potential
<b>Outrun ventures</b>	<ul style="list-style-type: none"> <li>Exclusively focused on Fintech's</li> </ul>	<ul style="list-style-type: none"> <li>Invest in smaller deals (&lt;£5M)</li> </ul>	1 <b>Farmcrowdy</b> <i>Nigerian crowd funding Ag.Fintech</i>	High potential
			2 <b>Agrofides</b> <i>Ghanaian lending and Agfintech</i>	Medium potential
<b>AgDevCo<sup>1</sup></b>	<ul style="list-style-type: none"> <li>Interested in Ag.fintech</li> </ul>	<ul style="list-style-type: none"> <li>Track record of direct investments</li> </ul>	1 <b>Farmcrowdy</b> <i>Nigerian crowdfunding Ag.Fintech</i>	Medium potential
			2 <b>Agrofides</b> <i>Ghanaian lending and Agfintech</i>	Medium potential

1. Direct investment opportunities that surfaced during conversations

Note: High Potential = we engaged with both players, Medium Potential = we engaged with 1 party; Low potential = no engagement, matched based on our understanding of their needs

Source: Local and foreign investor interviews

# Cold chain | Shortlist of potential commercial partners – overview

Preliminary, final update post event

◀ UK Player ▶

UK Player	No of N/W Africa Matches
Myriad	3
Hubbard	4
Sunswap	2
Zero2Cool	3
Cold chain federation	2
Gray Adams	4

◀ NW Africa Players ▶

N/W Africa player	No of UK Matches	N/W Africa player	No of UK Matches
Urban Jungle	1	Pinora	1
Cold Hubs	4	Ifria	2
Cold Box Store	3		
Eco Tutu	3		
Zero 2 Cool	1		
Lange & Grant	5		

# Cold Chain | NW Africa engagements identify potential matches (1/2)

Preliminary, final update post event

UK Player	Stated Interests	Add'l information	Potential NW Africa Match	Assessment of potential
Myriad		Broad offering includes <ul style="list-style-type: none"> <li>• Wide range of parts               <ul style="list-style-type: none"> <li>- Refrigeration units</li> <li>- Compressors</li> <li>- Engines &amp; structural parts</li> </ul> </li> <li>• New and refurbished parts</li> <li>• Own brand &amp; generic parts</li> </ul>	<b>1 Cold hubs</b> <i>Expanding into cold chain logistics</i>	High potential
			<b>2 Eco Tutu</b> <i>Local cold transportation player</i>	High potential
			<b>3 Urban Jungle</b> <i>Interested in component parts</i>	Medium potential
Hubbard		Offering includes <ul style="list-style-type: none"> <li>• Transport &amp; static refrigeration products               <ul style="list-style-type: none"> <li>- Panels</li> <li>- Bodies</li> <li>- Refrigerating units</li> </ul> </li> <li>• Known for innovation &amp; sustainable solutions               <ul style="list-style-type: none"> <li>- Zero-emission transport systems</li> </ul> </li> </ul>	<b>1 Cold hubs</b> <i>Expanding into cold chain logistics</i>	High potential
			<b>2 Cold box store</b> <i>Cold chain service provider with sustainable focus</i>	High potential
			<b>3 Lange &amp; Grant</b> <i>Cold transport player</i>	High potential
			<b>4 Eco Tutu</b> <i>Cold transport &amp; storage player</i>	High potential
			<b>5 Ifria</b> <i>Interested in cold storage partners</i>	Medium potential
Sunswap		Offering includes <ul style="list-style-type: none"> <li>• Zero-emission transport refrigeration units</li> </ul>	<b>1 Cold hubs</b> <i>Expanding into cold chain logistics</i>	High potential
			<b>2 Lange &amp; Grant</b> <i>Expanding into cold chain logistics</i>	High potential

# Cold Chain | NW Africa engagements identify potential matches (1/2)

Preliminary, final update post event

UK Player	Stated Interests	Add'l information	Potential NW Africa Match	Assessment of potential
Zero 2 Cool	<ul style="list-style-type: none"> <li>Buyers of carbon-neutral refrigerating units in cold storage or transportation</li> </ul>	<ul style="list-style-type: none"> <li>Units are low cost and could be competitive vs leading players</li> <li>Units powered by waste heat from truck exhaust so suitable for environmentally conscious players</li> </ul>	1 <b>Cold hubs</b> <i>Assembler of cold chain storage units</i>	High potential
			2 <b>Eco Tutu</b> <i>Cold transportation player</i>	High potential
			3 <b>Cold box store</b> <i>Assembler of cold chain storage units</i>	High potential
Cold Chain Federation		<ul style="list-style-type: none"> <li>Represents interests of UK cold chain players and</li> <li>Can develop joint trade platforms</li> </ul>	1 <b>OTACCWA</b> <i>West African Cold Chain Association</i>	Medium potential
			2 <b>Zero 2 Cool</b> <i>UK player, with West African presence</i>	High potential
Gray Adams		Offering includes <ul style="list-style-type: none"> <li>Cold trailers, blast freezers, chillers and loading pods</li> <li>Trade in new equipment, with reputation for quality products</li> </ul>	1 <b>Cold hubs</b> <i>Expanding into cold chain logistics</i>	Medium potential
			2 <b>Lange &amp; Grant</b> <i>Cold transport &amp; storage assembler</i>	Medium potential
			3 <b>Cold box store</b> <i>Assembler of cold storage equipment</i>	Medium potential
			4 <b>Eco Tutu</b> <i>Expanding into cold chain logistics</i>	Medium potential



# Information packs for UK and African businesses

# Introduction

- 1 Growth Gateway (G4G) is a UK-government programme that aims to increase two-way trade and investment between the UK and Africa & ASEAN. To date it has **supported >350 UK and African businesses since Dec 2021 launch**
- 2 Horticulture is an important sector on the continent representing a large and growing opportunity: **£120B production value in 2020 (as reference, US horticulture is £62B), growing at 6.65% p.a.** through 2030, majority of which in North and West Africa
- 3 Within North and West Africa, we identify two broad and regionally-aligned horticulture landscapes: **North Africa produces crops** (e.g. berries, tomatoes, dates, citrus, etc.) **with clear demand and consumer preference in export markets** (e.g. Europe); **West African production focuses on crops more traditionally consumed in Africa and Asia** (e.g. plantain, yam, cassava, etc) and with less appeal in European markets
- 4 In both regions, **horticulture is large and growing** - North Africa produces £32M / 110M tonnes today, expected to hit £67B / 230M tonnes by 2030; West Africa produces £48B / 297M tonnes today, expected to reach £89B 540M tonnes in 2030. Growth trajectories in both regions **fuelled and constrained by differing factors, but climate change impacts resonate in both**
- 5 Nonetheless, large growing market points to trade & investment potential opportunity within supporting business ecosystem which **comprises >30 opportunities along the horticulture value chain. In particular, 2 opportunity spaces – Financing and Cold Chain –** stand out based on UK competitive advantage and local need
- 6 Together, **financing and cold chain represent estimated £37B opportunity across North and West Africa**, of which 80% and 70% currently underserved and approximately 50% of opportunity is located in 3 countries – **Nigeria, Ghana and Morocco**

# Cold chain opportunities in Nigeria, Morocco & Ghana

- 1 **Cold chain opportunity** in North and West Africa estimated **at £6.5B today**. Nigeria (£1.8B), Morocco (£755M) & Ghana (£659M) make up ~50% of the opportunity across both regions
- 2 **Most of opportunity (£2B) is unaddressed** – observe low consumption relative to overall opportunity (estimated need) given limited reliable & affordable energy access and relatively small export sector especially in Nigeria and Ghana. Morocco has more advanced cold chain industry given history of exports to Europe and smaller unaddressed market
- 3 **Secular trends** including increasing food demand due to rapid population growth and economic development (2% p.a. respectively), urbanisation (9% p.a. through 2040) and formalization of food end markets, production shift towards higher value and more perishable products (e.g., flowers, fruits, fish), and drive to substitute imports with domestic products (e.g., in fast food sector), are **driving demand for cold chain**. We estimate a **growth in consumption at 17% p.a. over the next 5 years**. This will unlock **~50% (£1B) of unaddressed market**
- 4 **Imports (currently 30% of consumption in target countries) play a key role** in meeting growing demand for cold chain products particularly freezers, in focus markets. **China and Turkey (major low-cost players) dominate** cold chain trade indicating that price is a significant lever of choice in focus markets especially in more nascent cold chain markets Ghana and Nigeria. Notwithstanding this, observe presence of other European players, e.g. Italy, Netherlands, Germany, correlating well with strategic (government-supported) efforts from firms in those markets. In more mature Moroccan market we see that **quality, accessibility of after sales service and customer loyalty** are additional levers of choice, leading to a more open market where EU players from Italy, Spain, and France are also competitive
- 5 **UK participation is low** (<1% of market share) mainly due to **information asymmetries** on both supplier & buyer side. While price is a key factor to address, there is scope for UK players and African counterparts to trade with each other

# Financing opportunities in Nigeria, Ghana and Morocco

- 1 UK investors have two general options to engage on financing opportunity: direct investment in local horticulture businesses or indirectly by investing into local financial institutions. Sub-scale nature of direct opportunities (~25) in focus markets prioritises **indirect investment approach** for UK players, enabling collaboration between UK and African players
- 2 Indirect investment opportunity **worth estimated £14B** in Nigeria (£8B), Morocco (£3B) & Ghana (£3B), and is growing 10% p.a. through the next 5 years. Going forward, 3 trends will shape outlook for indirect investments; **rising preference for local currency debt** to stabilise repayment terms, **rise in value chain platforming** resulting in more large scale opportunities and **innovation in risk mitigation** in response to macro economic challenges
- 3 UK is a **leading player globally in indirect investment** (2nd largest investor by AuM, highest AuM per capita); in Morocco UK maintains position but in Nigeria and Ghana **slips behind players with smaller global footprint** like Singapore (5th by AuM) & (Germany (7th by AuM)
- 4 A review of indirect investment deals in Ghana, Nigeria, and Morocco from last 10 years shows **UK has one of the highest number of deals and investors** relative to other players. Yet, interviews with 20+ financial institutions from these markets report **limited knowledge of and partnership with UK investors beyond BII**. Further, UK deals are on average **smaller** (£37M vs £102M avg in focus markets), show the **lowest share of new targets** (40% vs 70% avg) despite having generally similar level of DFI support (co-investments) as peers - 1:11 UK deals with co-investment vs 1:13 for US, 1:7 for Germany
- 5 Financial institutions in focus markets express **interest to do more business with UK** particularly in partnering with UK players and leveraging their strength as a global financial player to innovate risk mitigation solutions



# Overview of high-impact solutions






**COLD CHAIN: For UK players who overcome price disadvantage, information asymmetry challenge needs to be addressed**

# 3 proposed solutions to address identified challenges

Solution	Initiative	Example	Impact	UK offering in NW Africa	Other UK activity
Structured fora to connect buyers & suppliers	1a Direct introductions between UK & NW Africa cold-chain players	 Italy Agribusiness Digital Lab in Ghana	Italy is 2 <sup>nd</sup> largest exporter of cold chain equipment	✗	
	1b Co-host and/or subsidise attendance for UK players at leading trade fairs	 Germany West African Cold Chain Summit	Germany 5 <sup>th</sup> largest exporter to NG & GH but 16 <sup>th</sup> to Morocco	✗	
	1c Online market-place connecting UK suppliers with NW African opps	 France Online tool on trade website  Italy		≈ DIT "GREAT" tool provides information on global trade requests, but little info on trade requests from NW Africa	
Knowledge tools	2 Country & cold-chain specific information relevant for opportunity identification	 France Trade portal with specific information on cold chain opportunities  Italy		≈ DIT "GREAT" tool provides general info on target countries, but could be more precise on opps present within countries	
Trade associations	3 Local chapters of trade associations	 France France supply chain, Morocco chapter	France, 4 <sup>th</sup> largest exporter to Morocco but 11 <sup>th</sup> to NG & GH	✗	

Source: Press search: based on public information that is readily available; BCG analysis

 Best in class
  Exists but not best in class
  Does not exist

# Italy | Italian Trade Agency deployed the Italy – Ghana Agribusiness Digital Lab project to build mutually beneficial business relationships



Good fit




Fair applicable



Not a fit

# France | France Supply Chain organisation opens Morocco chapter as part of its "Go to Africa" initiative

Country/region	Context	Expected Impact
 France	<ul style="list-style-type: none"><li>• France supply chain association identified significant opportunity to promote "supply chain" in Africa</li><li>• Therefore, they set-up chapters in Africa, starting with Morocco with plans to set up in Ivory Coast and South Africa</li><li>• The Africa chapters help drive cooperation between Moroccan institutions &amp; France supply chain &amp; promote information exchanges from both sides</li></ul>	<ul style="list-style-type: none"><li>• Increase integration of French companies with their Moroccan counterparts</li><li>• Ease of access for French players who are looking to enter the Moroccan market</li></ul>
Timeline	Mechanism used to address barrier	Fit to UK in N&W Africa
2021 - Present	<ul style="list-style-type: none"><li>• This initiative brings French businesses into direct contact with their Moroccan counterparts and solves for the following barriers:<ul style="list-style-type: none"><li>◦ Limited knowledge of opportunity profitability &amp; market needs</li><li>◦ Mismatch between product offering by UK players and market need</li></ul></li><li>• To achieve this, the France Supply Chain organisation through the Moroccan Chapter:<ul style="list-style-type: none"><li>◦ Organises periodic meetings</li><li>◦ Hosts field visits</li></ul></li></ul>	<ul style="list-style-type: none"><li>• UK businesses have limited knowledge of opportunity profitability &amp; market needs</li><li>• A reason highlighted for this include limited presence of UK players in relevant markets</li><li>• The UK Cold Chain Federation should be supported in creating local partnerships that expose its members to NW African markets</li></ul>
Actors involved		
<ul style="list-style-type: none"><li>• France supply chain organisation</li><li>• French companies and their Moroccan subsidiaries</li><li>• Moroccan companies &amp; institutions in the transport and logistics sector</li></ul>		

# Germany | German trade fair organiser focused on developing markets, co-organises West African Cold Chain Conference in Nigeria

<b>Country/region</b> 	<b>Context</b>	<b>Expected Impact</b>
 Germany	<ul style="list-style-type: none"><li>Fair trade is an organizer of professional international agrifood &amp; plastprintpack trade fairs in developing markets especially in Africa and the Middle East</li><li>The company has partnered with the Organization for Technology Advancement of Cold Chain in West Africa (OTACCWA) to host West African Cold Chain Conference</li><li>The conference connects cold chain players from Germany with their counterparts in NW Africa</li></ul>	<ul style="list-style-type: none"><li>Increase in demand of German cold chain products in W Africa; cold chain exports from Germany to W.Africa increased 40% between 2019 &amp; 2021</li><li>More direct business connections between German cold chain players &amp; W African agribusinesss</li></ul>
<b>Timeline</b> 	<b>Mechanism used to address barrier</b>	<b>Fit to UK in N&amp;W Africa</b> 
2018 - Present	<ul style="list-style-type: none"><li>The cold chain event provides a series of opportunities for German cold chain businesses to connect with West African agri businesses, including:<ul style="list-style-type: none"><li>Knowledge transfer sessions</li><li>B2B networking</li><li>Exhibitions</li></ul></li></ul>	<ul style="list-style-type: none"><li>UK businesses are absent key B2B forums that facilitate buyer-supplier connections</li><li>Trade fairs are good fit for tackling information asymmetry and making UK players top of mind for NW African agri-businesses &amp; cold chain players</li><li>HMG can support UK businesses in identifying and subsidising attendance to key trade fairs</li></ul>
<b>Actors involved</b> 		
<ul style="list-style-type: none"><li>Organization for Technology Advancement of Cold Chain in West Africa</li><li>Fairtrade messe</li><li>German cold-chain companies</li></ul>		

# To progress we recommend 3 high-impact actions for HMG support, both in the short and in the medium term

## Short term

### Structured forums to connect

- **Periodically organize forums** that enable the direct introductions of UK Cold Chain suppliers to NW African buyers
- **Co-host and/or subsidise UK players** attendance at relevant cold chain fairs
- **Create an online market-space** connecting UK cold chain **suppliers with opportunities in NW Africa**

### Knowledge tools

- Ensure GREAT web-tool contains **updated view on Cold Chain opportunities** in NW Africa
- Update tool UX to provide view for buyers in **NW Africa to access suppliers** from UK
- **Increase marketing and awareness** of trade knowledge tools provided DIT to both UK & NW African Cold Chain players

## Medium term

### Leverage trade associations

- **Create NW African affiliations** of UK cold chain trade associations, which gives UK players access to firsthand information on market needs & opportunities



**FINANCING: Information asymmetry is the largest challenge facing UK investors, driving their relatively weaker deal flow – solutions focus on how to address gaps**

# To progress we recommend 5 high-impact actions for HMG support, both in the short and in the medium term

## Short term

### Structured B2B connection mechanisms

- **Sponsor UK investors** to attend key in investment community
- **Organise regular GG market visits** & road shows in region
- **Create online deal room** with support for both sides
- **Increase presence and activity of country coordinator** and set recruitment and deal targets

### Knowledge tools

- UK-side: **Update country overview** on DBT website regularly to provide more in-depth, up-to-date info of investment opportunities, and **circulate info regularly**
- NW Africa-side: **Double-down on GG marketing/branding**, and increase info dissemination in key investor communities

### Business working groups

- **Increase presence and activity of working groups** specific to investment to regularly engage on topics and build the UK-NEW Africa investment ecosystem

## Medium term


### Investor approach

- **Share with UK investors best-in-practice** investment approach to meet NW Africa needs, e.g., ecosystem approach
- **Create a community of investors** to share on how to succeed in NW Africa market
- **Set up a flagship 'investor bootcamp'** for high potential NW Africa FIs




### DFI support

- **Scale up, as needed, and advertise DFI-supported insurance** policies to mitigate Fx, default payment and political uncertainty risk
- **Increase concessional finance** options available for UK private investors







# 5 proposed solutions to address information asymmetry (1 of 2)

Solution	Initiative	Example	Impact	UK offering in NW Africa	Other UK activity
Structured mechanisms to connect UK and NWA players	1a In-person connection events and investor fairs/road show	 Germany German-Nigerian Business Forum, Lagos, with investment pavilion	African players with single window access to 85% German companies active in Africa	 Major UK-Africa investment Summits hosted in London and not in region	 India UK India Business Council roundtables on investment opportunity
	1b Regional/country champions responsible for recruiting and closing deals	 Germany Country/sector specific leads in-country, e.g., German-Nigerian Hydrogen Office			
	1c Virtual investment deal room to showcase profiles, negotiate terms, close deals	 US Prosper Africa online platform for investment support and deal making	160 deals closed in Nigeria, Ghana, and Morocco with Prosper Africa support	 DBT country coordinators exists, but not as active or present as others	
Knowledge tools	2 Sector-specific investor info, i.e., opportunity identification and due diligence	 US Investor portal with specific market and sector information		 DBT website has market data and fact sheets at a general country-level	
Business working groups	3 Business/investor forums for UK and NW Africa players	 Germany Hosts various investor-specific discussions with Global Trade Review	€200M Africa public & private investment facilitated	 UK Chamber of Commerce present but need to scale up investment-specific activity	 Sgpre UK-ASEAN Business Council and DBT


Source: Press search: based on public information that is readily available; BCG analysis

 Best in class
  Exists but not best in class
  Does not exist

# 5 proposed solutions to address information asymmetry (2 of 2)

<u>Solution</u>	<u>Initiative</u>	<u>Example</u>	<u>Impact</u>	<u>UK offering in NW Africa</u>	<u>Other UK activity</u>
Investment approach	4 Blended technical support and funding offer	 Japan VC investors bringing sector, banking, legal and accounting support		 Exists for other sectors (e.g., UK-Nigeria Tech Hub) but not for investments	
DFI support	5a Risk mitigation instruments for currency volatility, political unrest, general uncertainty	 US DFC programme covering losses <\$1 Bn incl. political violence, Fx inconvertibility		 Overseas Investment Insurance, but does not cover Fx inconvertibility	
	1c DFI-private co-investments incl. concessional financing from DFIs	 Sgpre Enterprise Financing Scheme provide co-investment partnerships	200 Singaporean companies supported; 18% trade in 2015-20	 £10M of concessional aid to invest in energy access projects in Nigeria	

# Case study - Germany | Combination of B2B engagement , and targeted government financing to bolster German private sector investment into Africa

Country/region	
 Germany	
Timeline	
2019 - present	
Actors involved	
<p>AfricaGrow Fund</p> <ul style="list-style-type: none"> <li>German Federal Ministry for Economic Cooperation and Development (BMZ)</li> <li>KfW Development Bank</li> <li>Allianz Global</li> </ul> <p>GABF: private sector</p>	

## Context

- In 2017, the G20 Compact with Africa (CwA) was initiated under the German G20 Presidency to promote private investment in Africa
- In the same year, a private sector led initiative – Germany-Africa Business Forum (GABF) – was set up to give a new perspective to Africa as a lucrative business opportunity
- AfricaGrow is a central instrument PPP of the CwA, focusing on start-up and venture capital investment

## Mechanism used to address the challenge

### AfricaGrow Fund

- Insufficient DFI support: German fund of funds AfricaGrow provides equity capital for small and medium-sized enterprises and start-ups in Africa, aiming to build a solid equity base for further investment inflows
- Perception that UK is uninterested in NW Africa: leveraged the well-known G20 platform and their 2017 Presidency to launch CwA, and linked the AfricaGrow

### GABF

- Perception that NW Africa opportunity is non-commercial: structured as a private sector think tank, its mission itself aims to change the narrative to view Africa as a lucrative business opportunity through information and engagement events
- Limited track record in horticulture relative to others: partnered with the German Agribusiness Alliance host the recent 9th German-African Agribusiness Forum

## T&I Impact

### AfricaGrow Fund

- Public and private partners into Africa amounting to €200M
- Selected ~20 African VS and start-ups for investment

### GABF

- 2023 membership represents 85% of all German companies active in Africa

## Fit to UK in N&W Africa



- State and business-led Initiatives possible due to strong government structures and well-established private sector
- Similar context of competing against US and French presence in key markets



# Case study - Singapore | Enterprise Singapore created to support the growth of Singapore as a hub for global trading and investment

**Country/region** 

 Singapore

**Timeline** 

2018 - present

**Actors involved** 

- Ministry of Trade and Industry of the Government of Singapore

## Context

- Created in 2018 after the merger of International Enterprise Singapore (IE) and SPRING Singapore, focusing on SMEs and start-ups
- Program developed based on the idea that Singapore's domestic economy is too small

## Mechanism used to address the challenge

- Lack of information on opportunity attractiveness: detailed investment potential profiles of key markets, including Nigeria, Morocco and Ghana, on their website
- UK investment approach often does not consider the full ecosystem: network of accelerator and investor experts that can be leveraged when expanding into new markets, including start-up and VC expertise
- UK players appear to take more hands-off approach: training on 'Guide to surviving your first tradeshow' to support investors with best practice engagement
- Insufficient DFI support for private capital: Startup SG Equity scheme where the government invests with independent, qualified third party investors into eligible start-ups; and invest in selected venture capital firms that will in turn invest into eligible start-ups, through a fund-of-funds approach






## T&I Impact

- In 2022, supported 200 Singaporean companies with trade and investment in Africa
- 18% growth in trade with Africa from 2015 to 2020
- 20% growth in internationalisation projects in Africa supported by the agency from 2019 to 2020

## Fit to UK in N&W Africa

- Large focus on digitalisation, technology and automation, in line with UK's strengths
- Competing against US and France in the African start-up and SME space

# Case study - US | Prosper Africa dedicated to increase two-way T&I between the US and Africa, with range of technical and financial tools

Country/region 	Context	T&I Impact
 US	<ul style="list-style-type: none"> <li>In the wake of a period of international isolation and rising threat of China, in 2018 the Trump administration announced its Africa strategy centres around 'prosperity, security, stability'</li> <li>Prosper Africa resulted from this push to shift from Africa as an aid recipient to a trade and investment partner</li> </ul>	<ul style="list-style-type: none"> <li>Since June 2019, help close 1100 deals across 49 African countries:               <ul style="list-style-type: none"> <li>94 in Nigeria</li> <li>75 agriculture deals</li> <li>47 in Ghana</li> <li>19 in Morocco</li> </ul> </li> <li>Total estimated value of \$65 bn</li> </ul>
Timeline 	Mechanism used to address the challenge	Fit to UK in N&W Africa 
2021 - present	<ul style="list-style-type: none"> <li>Lack of information on opportunity attractiveness: DFC provide access to funding for technical assistance/feasibility studies that improve commercial sustainability of DFC-funded projects, e.g., in-depth analysis of investment opportunities</li> <li>Perception that UK is uninterested in NWA: investment-specific virtual deal room with technical support for both US investors and African players seeking funding, increasing visibility of both sides</li> <li>Limited risk mitigation mechanisms: DFC offers coverage of up to \$1Bn against losses, including currency inconvertibility, political violence, and breach of contract for capital markets</li> <li>Insufficient DFI support for private capital: USAID-funded West Africa Trade &amp; Investment Hub's facilitates co-investment ventures to generate new private-sector capital investment in key sectors, incl. agri-services and agro-processing</li> </ul>	<ul style="list-style-type: none"> <li>Similarities between the US Prosper Africa programme and Growth Gateway, in terms of objective and government resources dedicated</li> <li>Similar challenges of information asymmetry</li> </ul>
Actors involved 		
<ul style="list-style-type: none"> <li>17 US Government Agencies, including US Department of Agriculture, MCC, USAID, DFC</li> <li>US Embassy Deal Teams</li> </ul>		