



Port PPP Transactions in Africa

Lessons learnt and key success factors

April 2016

maritime & transport business solutions



Introduction to MTBS

Lessons Learnt from International 4P's

Need for African Port PPPs

Approach to Ghanaian PPPs

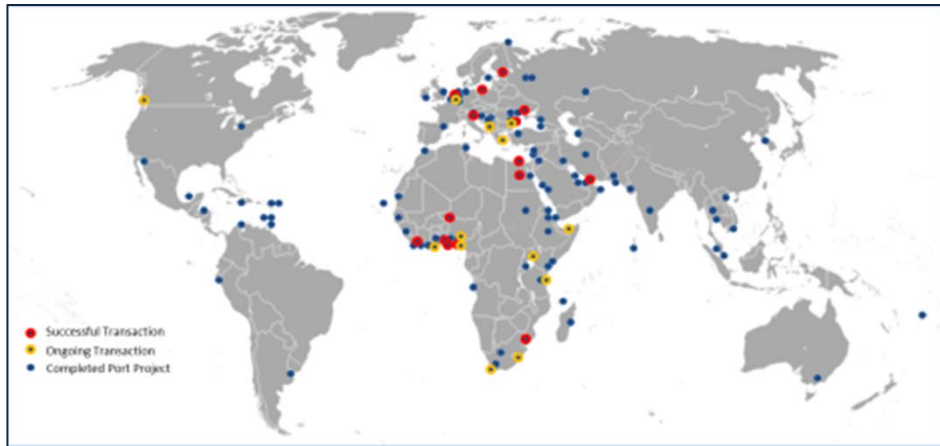
Q&A

Maritime & Transport Business Solutions

Global leader in port transaction advisory



MTBS's experience in the Port & Infrastructure Sector



MTBS's characteristics

- Global Leader in Port Business Advisory
- Long track record of closed 4P
- International Sector Focus



April 2016

Port PPPs in Africa - Lessons Learnt and Key Success Factors


MTBS's Clients in the Port & Infrastructure Sector



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Transaction Advisor 

Port of Bar, Montenegro
bid preparation for

GLOBAL PORTS HOLDING
for the acquisition of

CONTAINER TERMINAL AND GENERAL CARGO - BAR
deal size EUR 35 million
2013

Financial Advisor 

DCT Gdansk S.A. Poland
Concession Expansion Deepwater Container Terminal Gdansk

DCT.GDANSK.SA
Deepwater Container Terminal Gdansk

Bankable Financial Model PIM
Deal size: 200 million EUR
2012-2013

Transaction Advisor 

Luka Rijeka, Croatia
Adriatic Gate Container Terminal Equity Divestment

LUKARIJEKA d.d.

Concession awarded to
International Container Terminal Services, Inc.

Deal size EUR 37.5 million
2010-2011

Financial Advisor 

Project Finance
Oando Mid-Stream Jetty
Apapa, Lagos, Nigeria

Oando **FBN Capital**
ECODANE DEVELOPMENT CORPORATION
INVESTMENT BANKING

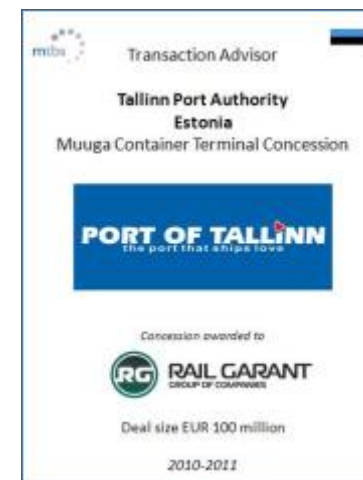
Market and tariff forecast
Financial model
Risk assessment

Deal size confidential
2011

| Port of Bar | Gdansk, Poland | Luka Rijeka | Apapa, Nigeria |
|--------------------------|---------------------------|----------------------------|------------------------|
| Transaction Advisor | Financial Advisor | Transaction Advisor | Financial Advisor |
| EUR 35 million deal size | 200 million EUR deal size | 37.5 million EUR deal size | Confidential deal size |
| Equity deal | Project finance | Equity deal | Project Finance |
| Buy Side | Buy Side | Sell Side | - |
| 2013 | 2012-2013 | 2011 | 2011 |

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| Port of Burgas | Port of Maputo | Port of Tallinn |
|---------------------------|------------------------|---------------------------|
| Financial Advisor | Financial Advisor | Transaction Advisor |
| 100 million EUR deal size | Confidential deal size | 100 million EUR deal size |
| Concession | Project Finance | Concession |
| Buy Side | - | Sell Side |
| 2011 | 2011 | 2011 |


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Transaction Advisor 

Freeport of Monrovia, Liberia
Container Terminal Concession



Concession awarded to
APM TERMINALS *Linking Global Trade*

Deal size US\$ 120 million
2009-2010

Financial Advisor 

Brooklyn-Kiev Port
Odessa, Ukraine

Container Terminal Equity Valuation



European Bank
for Reconstruction and Development

Deal size US\$ 37 million senior loan
Total project cost US\$ 130 million
2009

Transaction advisor 

Public Water Transport System
Dubai
UAE



Deal Size: US\$ 25 million
2007

| Freeport of Monrovia | Port of Odessa | Dubai |
|---------------------------|-------------------|--------------------------|
| Transaction Advisor | Financial Advisor | Transaction Advisor |
| 120 million USD deal size | Confidential | 35 million USD deal size |
| Concession | Equity | Concession DBFOM |
| Sell Side | Buy Side | Sell Side |
| 2010 | 2009 | 2007 |

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Financial Advisor 

**Port of Rotterdam Authority
The Netherlands**

Maasvlakte 2
Greenfield Container Terminal Development



Concession awarded to:



2006-2007

Financial Advisor 

Egypt, Cairo

Bid Preparation RTC Fleet



Deal size confidential

2006

Financial Advisor 


Egypt, Cairo

Bid Preparation Dry Bulk Terminal El Dekheila




Deal size confidential

2006

Financial Advisor 

**West Africa Container Terminal
Onne
Nigeria**



Lifting Global Trade.

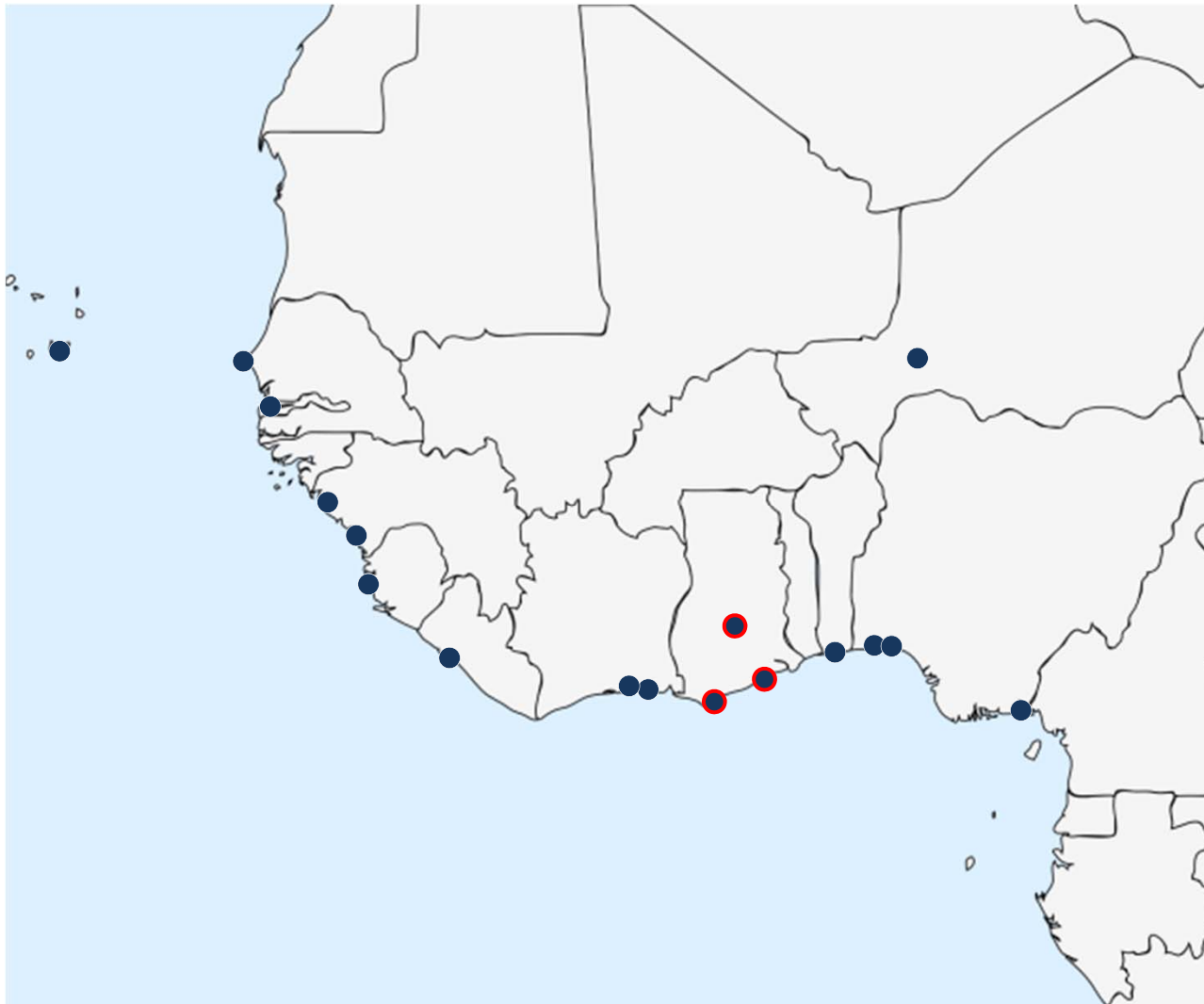
APM TERMINALS

Deal size confidential
2004

| Port of Rotterdam | RTC Fleet - Cairo | Dry Bulk El Dekheila | Port of Onne |
|------------------------|------------------------|------------------------|------------------------|
| Financial Advisor | Financial Advisor | Financial Advisor | Financial Advisor |
| Confidential deal size | Confidential deal size | Confidential deal size | Confidential deal size |
| Concession | Acquisition | Concession | Project Finance |
| Sell Side | Buy Side | Buy Side | - |
| 2007 | 2006 | 2006 | 2004 |

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Port PPP market leader in West Africa



- Palmeira Port Expansion
- Senegal River PPP implementation
- Banjul Port Identification of PPP options
- Guinea Dry Bulk PPP Preparation
- Conakry PPP identification study
- Freetown Dry Bulk PPP Feasibility
- Monrovia PPP Implementation
- Financing Port PPP projects (All Africa)
- Niger Inland Port PPP Implementation
- Implementation Abidjan RoRo PPP
- Takoradi PPP Implementation
- Boankra Inland Port PPP Feasibility
- Tema Tariff & Concession Study
- Cotonou PPP options
- Multiple Nigerian PPP projects
- Lekki PPP Implementation
- Iboim PPP Transaction Preparation

MTBS carried out more than 50 other PPP projects all over Africa



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Lessons Learnt: Importance of PPP & Transaction Advisory

De-risking strategies drive down cash flow volatility & cost of capital



- **PPP Structuring: balancing risks between public and private sector and business case driven**
 - Focus on Financing, Bankability
- **PPP Procurement Processes**
 - Professional and realistic transactions: timeframes, consultations, documentation, evaluation.
 - Business case driven
 - Process embedded in legislation
 - Non-contestable outcomes
- **PPP Contract: Valuable, Enforceable & Bankable**
 - Tenor
 - Step-in
 - Clear termination compensation regime and guarantees
 - Handback conditions
 - Capacity management (national port masterplanning)

Lessons Learnt: Structure

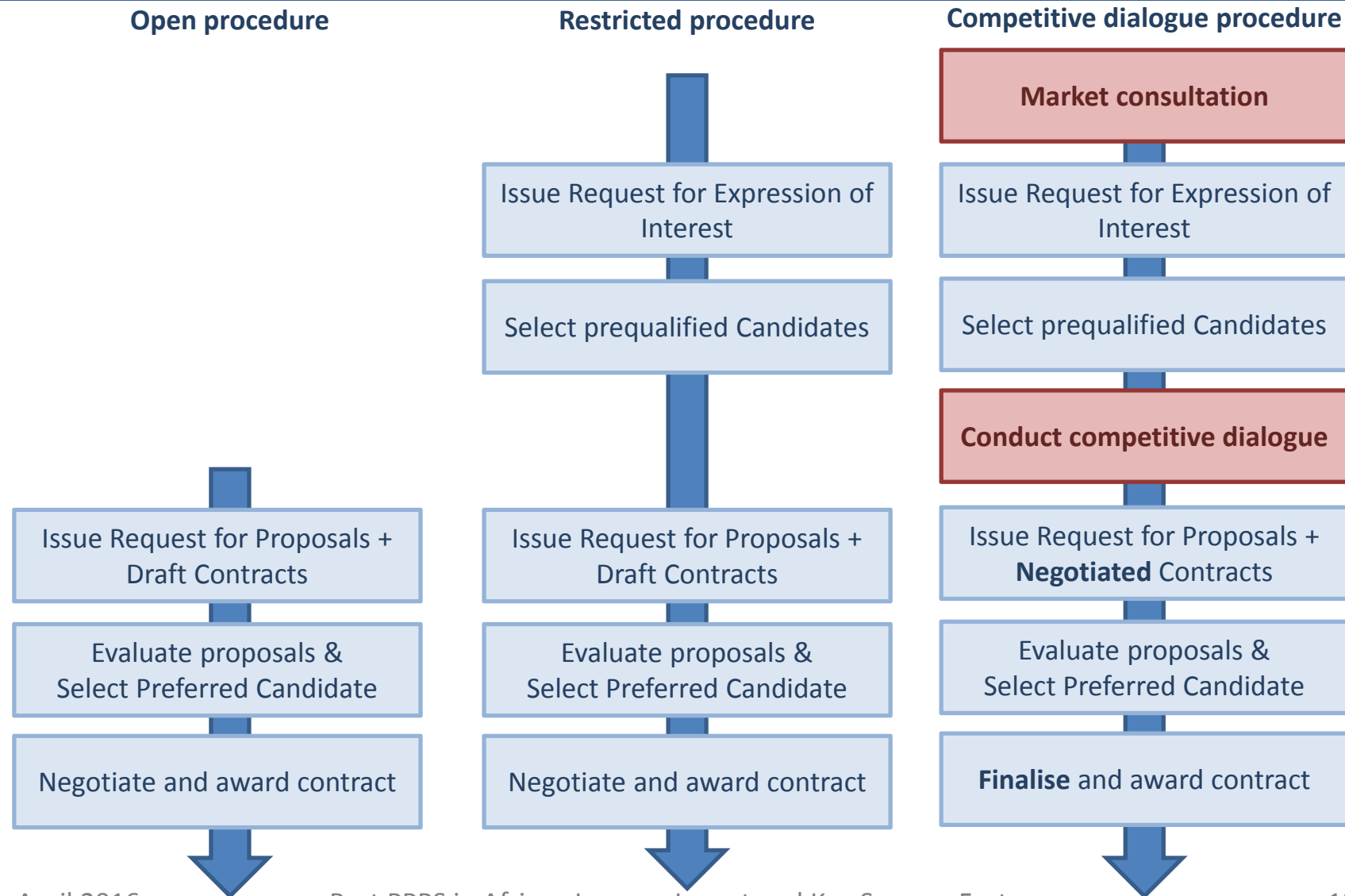
Choosing the Optimal Port Management Model



| Structure | Characteristics | Examples |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. Landlord</p> | <ul style="list-style-type: none"> PA acts as traditional landlord Substantial investments and financing is required, but only for base infrastructure | <ul style="list-style-type: none"> Rotterdam, Antwerp, Hamburg Best practice port reform in African ports |
| <p>2. Landlord with DB(F)M</p> | <ul style="list-style-type: none"> PA acts as traditional landlord Construction contract is tendered out as a DB(F)M, which implies that construction and maintenance (and financing) is the full responsibility of the infrastructure contractors | <ul style="list-style-type: none"> No DBFM contract in ports up to date: currently under implementation in a North American port For Rotterdam MV2 it was concluded to apply DBM |
| <p>3. PDMC</p> | <ul style="list-style-type: none"> PA enters into Master Concession with PDMC (PA as co-shareholder) PDMC tenders individual terminal concessions and the construction contract PDMC attracts investors and arranges debt financing for investments (based on securities from anchor clients) | <ul style="list-style-type: none"> Busan, S-Korea – Hyundai, Bouygues, BusanPA, Macquarie, Kukje, KCTC Maputo, Mozambique – CFM, DP World, Grindrod Durban, South-Africa Ibom Deep-Sea Port, Nigeria |
| <p>4. Full BOT concession tender</p> | <ul style="list-style-type: none"> Private consortium is responsible for port development and investments Appetite restricted by size of the investments Limited control PA | <ul style="list-style-type: none"> Monrovia, Liberia – APMT Mersin, Turkey – PSA & Afken |

De-risking: Awarding Procedures

Overview



Recommendations for successful tender procedure



- Transaction to be carried out by credible and fully authorized Concessioneing Authority.
- Competitive Dialogue Procedure creates most value: Early involvement of bidders
- Tender should be business case driven. Focus on long term value rather than closing the deal. Focus on Bankability
- Feasible Business Case for both PA and TO translated into valuable concession contract
- Concession contract: valuable, enforceable and bankable
- Transaction Preparation Phase is Crucial:
 - Transaction Structuring: Valuation, Risk Allocations and Value Engineering, Documentation
 - Transaction Management: First Time Right and Commit to Timelines



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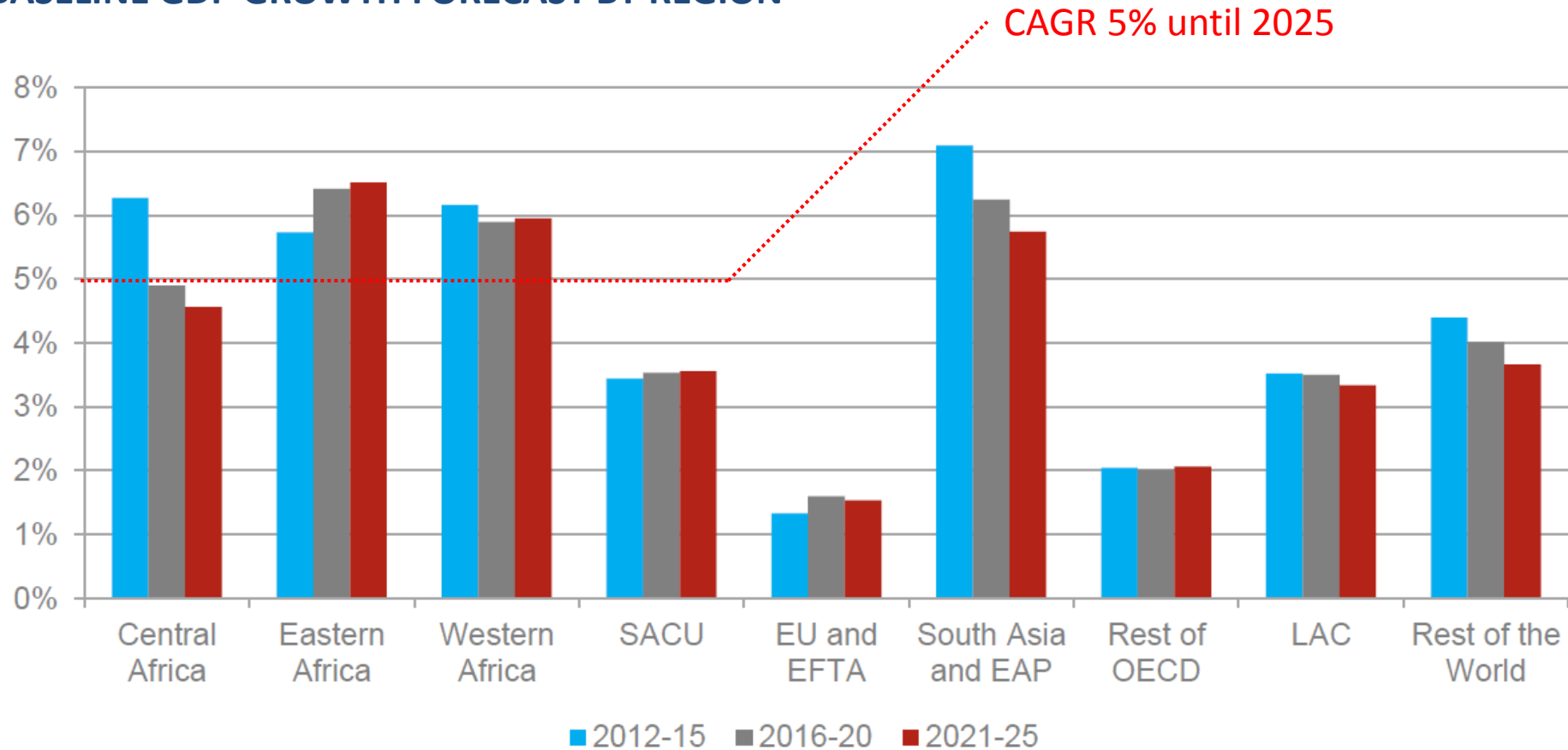
Q&A

Growth: GDP

Growth driven by socio-economics



BASELINE GDP GROWTH FORECAST BY REGION



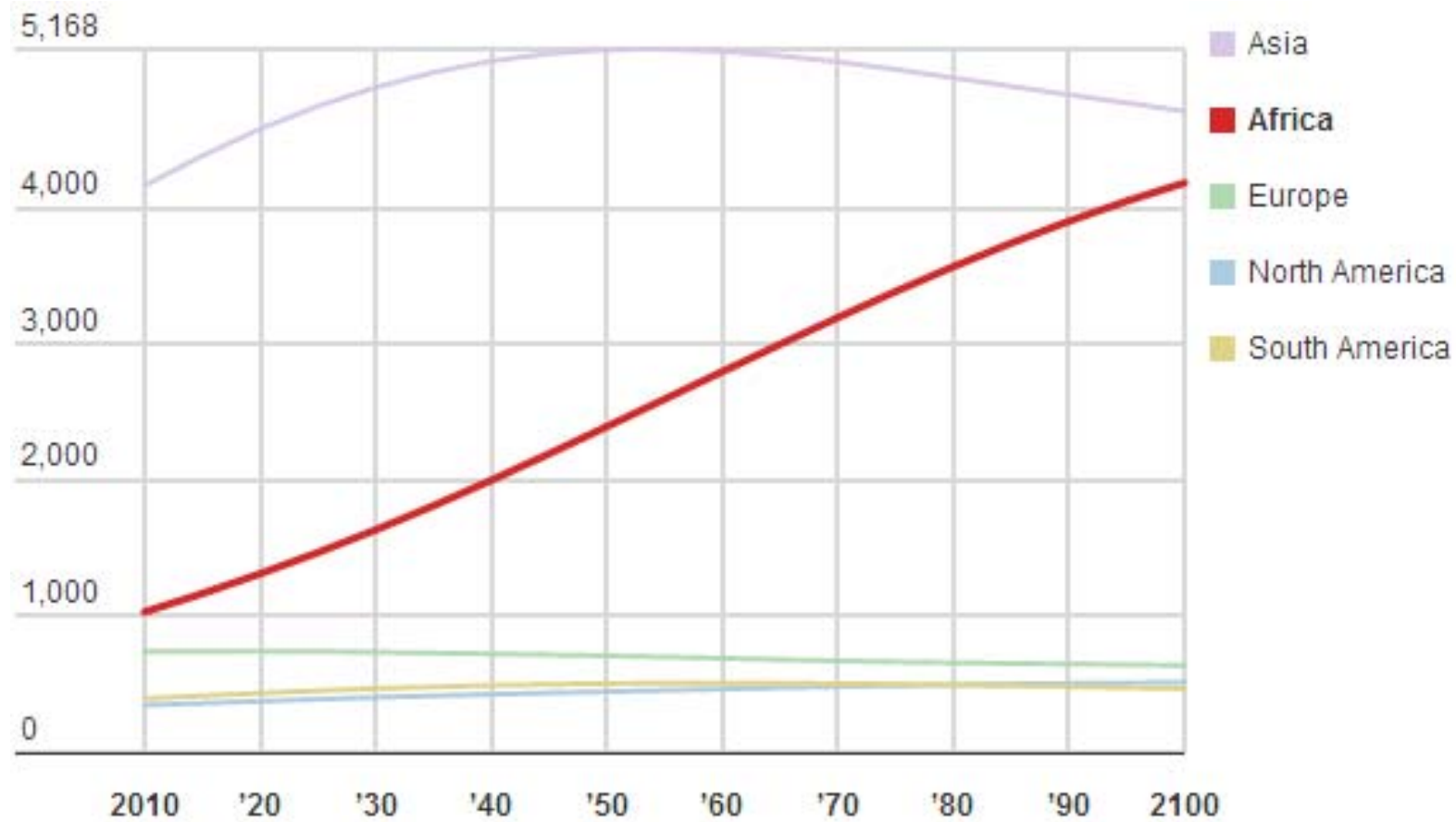
Source: International Trade Centre: "Africa's Trade Potential" (2012)

Growth: Population

Outcomes from the U.N. Panel on Population



PREDICTED POPULATION BY CONTINENT IN MILLIONS, 2010-2100

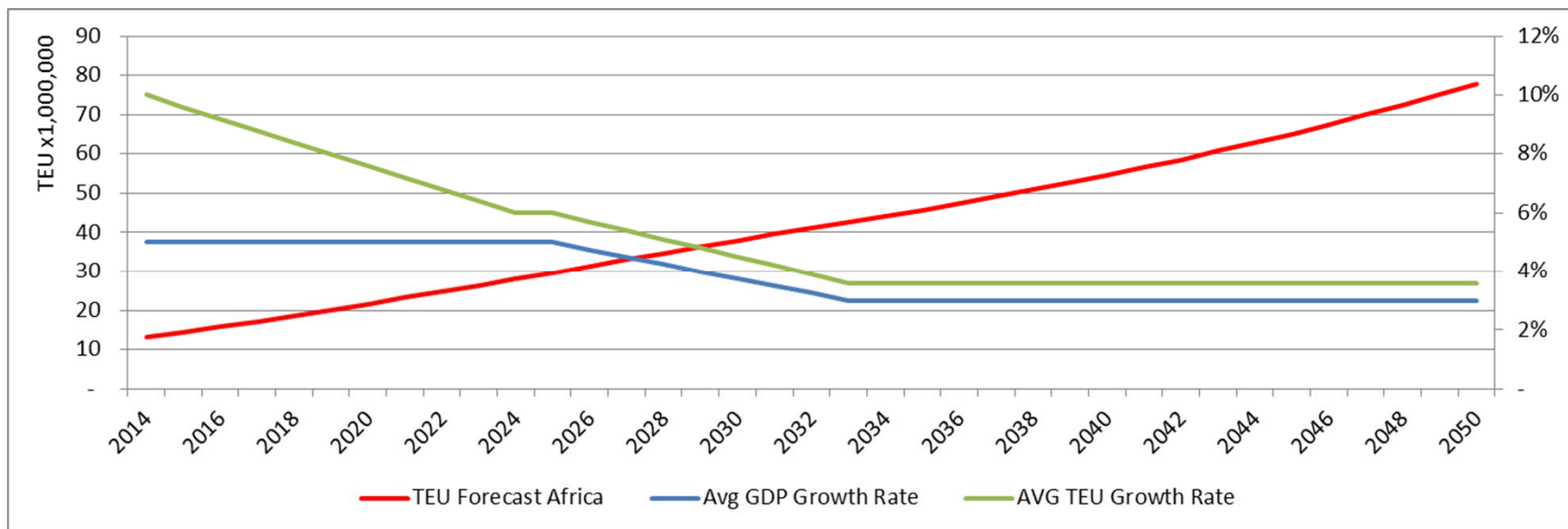


Growth: Demand (example: containers)

Substantial demand increase expected for Sub-Saharan Africa

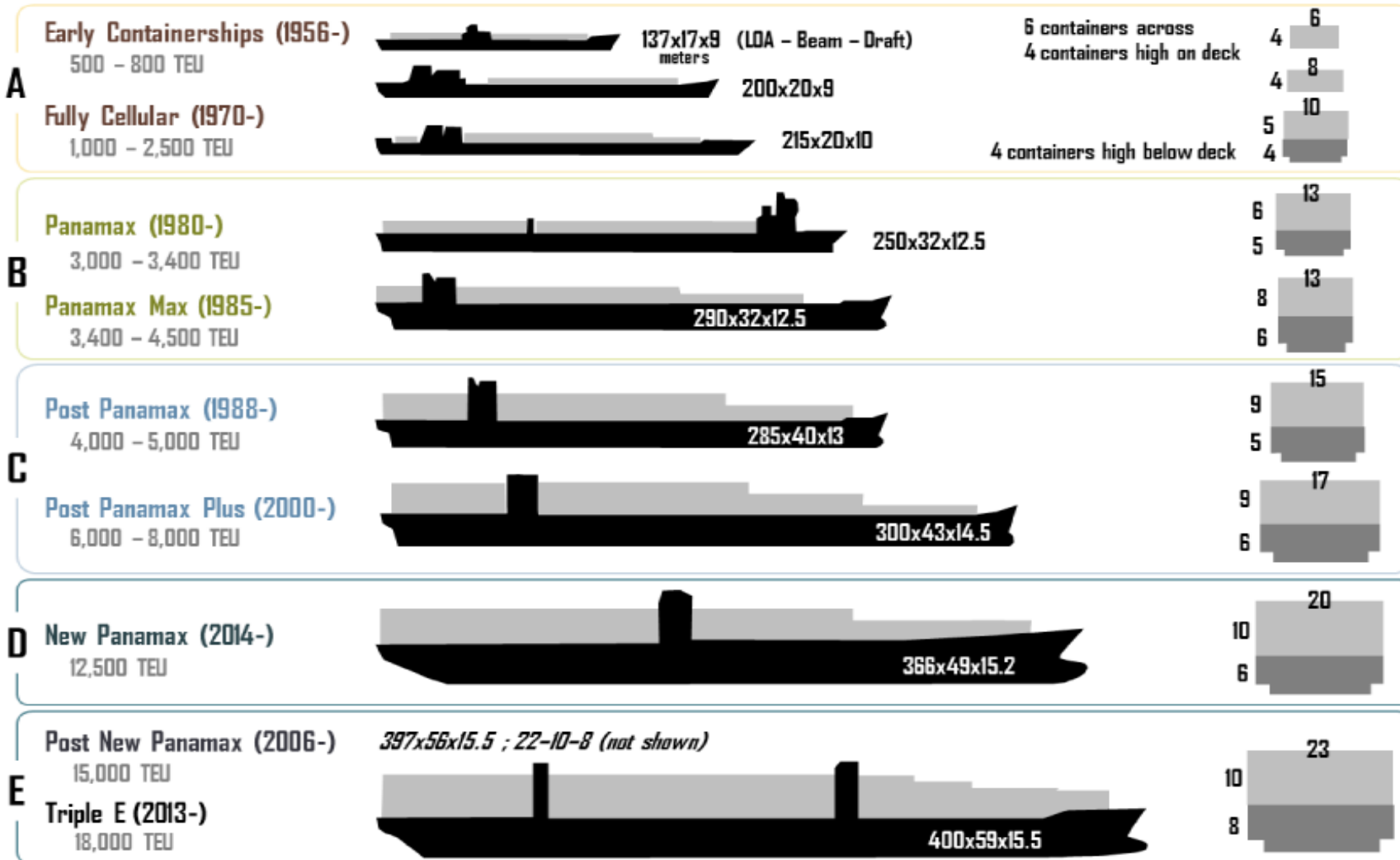


- GDP Growth: 5% /annum, decreasing to 3% /annum
- GDP-TEU multiplier: 2.0, decreasing to 1.2
- Demand increasing from 12 mTEU (2013 est.) to 80 mTEU (2050)



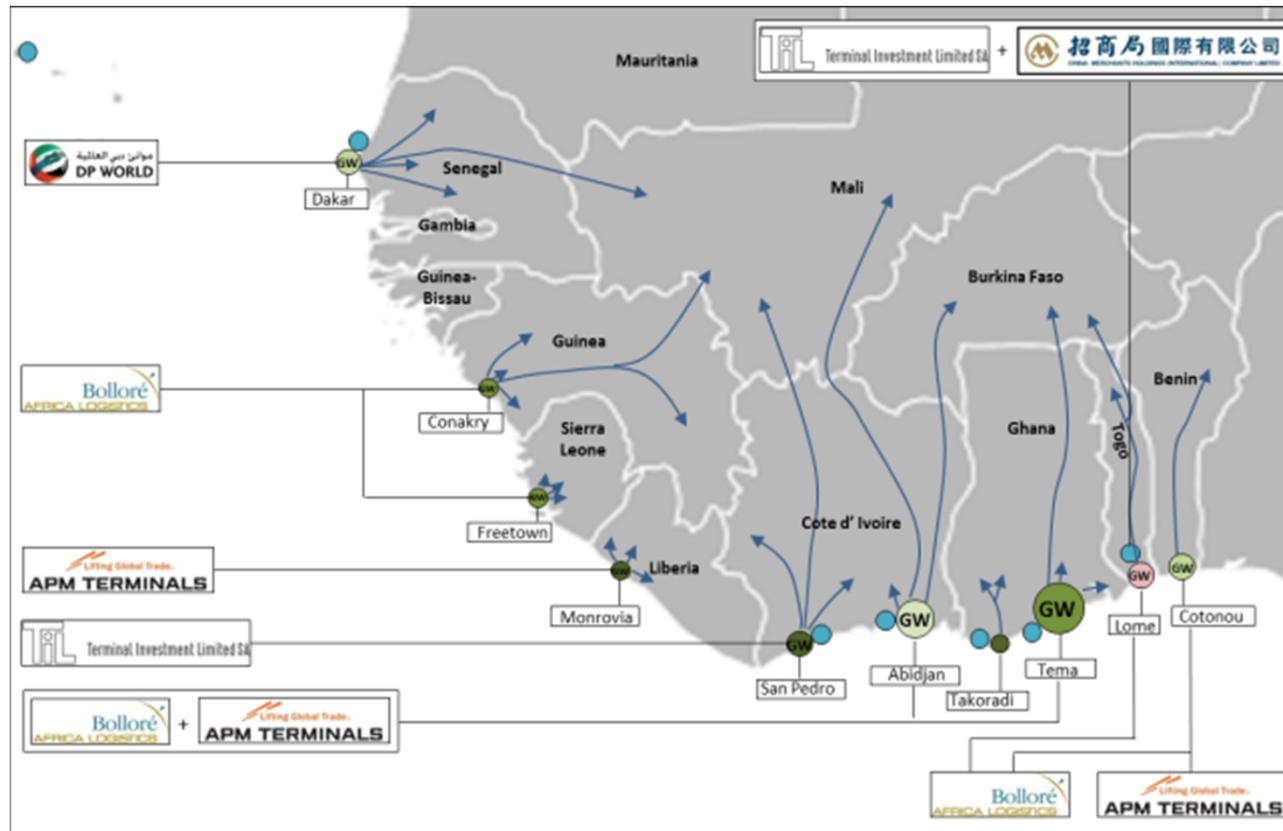
Growth: Vessel Dimensions (example: containers)

Existing Ports Unable to accommodate modern trades: Greenfields



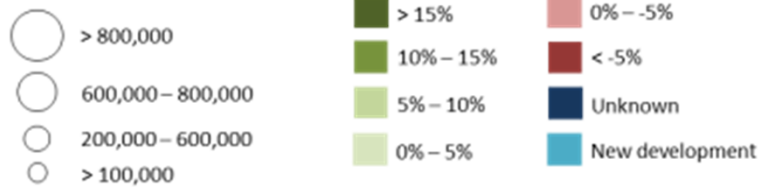
Growth: Scheduled Port Expansions

Multiple West African Port Projects are discussed



- Porto Grande – Transshipment Terminal
 - Dakar – Port du Futur
 - San Pedro – 2nd Container Terminal
 - Abidjan – 2nd Container Terminal
 - Tema – MPS 2
 - Lomé – LCT Expansion
 - Lomé – Togo Terminal Expansion
- All projects aim to have at least CD -16.0 meters of berth depth.
- All projects are to be developed as PPPs

Container Throughput in TEU (2013) Container Throughput CAGR – 2009-2013



Primary Type of Traffic

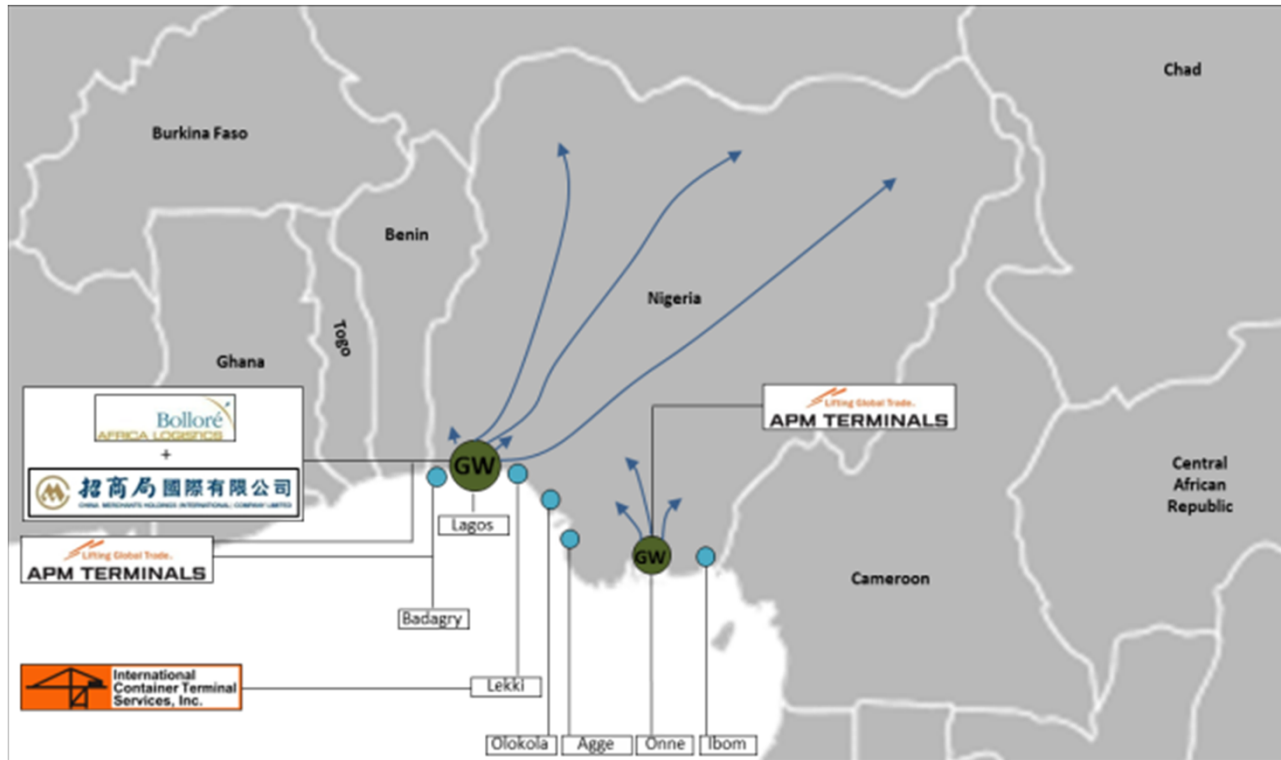
- GW Gateway Traffic
- TS Transshipment traffic
- TR Transit traffic

Hinterland

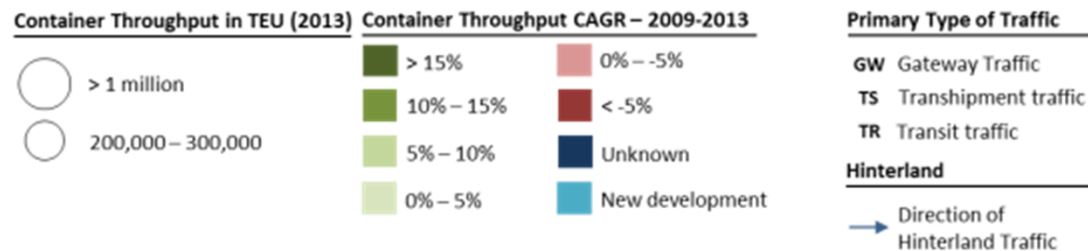
→ Direction of Hinterland Traffic

Growth: Scheduled Port Expansions

Multiple West African Port Projects are discussed



- Badagry – Container Terminal
 - Lekki – Deepsea Port
 - Olokola – Deepsea Port
 - Agge – Port Project
 - Ibom – Deepsea Port
- All projects aim to have at least CD -16.0 meters of berth depth.
- All projects are to be developed as PPPs

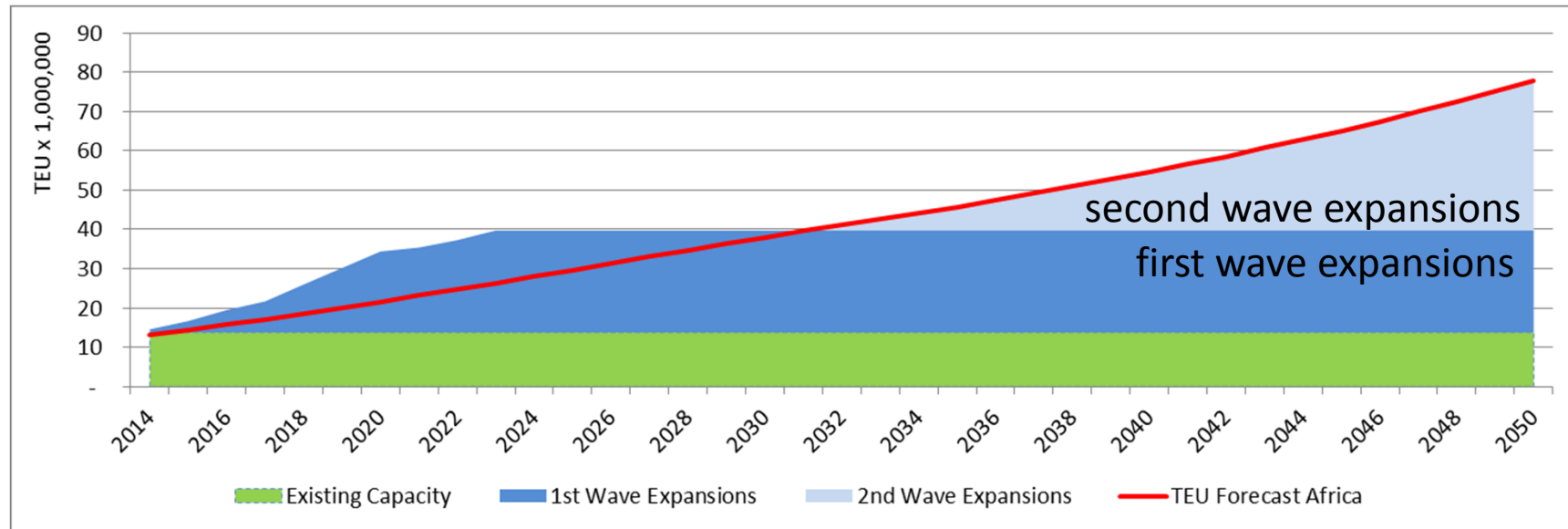


Growth: Capacity vs Demand

Substantial investments required on medium/long term



- Demand increasing from 13 mTEU (2014) to 80 mTEU (2050)
- Existing Capacity: 15 mTEU (existing trade +15%)
- 1st Wave Expansions: 26 mTEU; 26 Billion USD
- Capacity Gap by 2050 (requiring 2nd Wave Expansions): 40 mTEU, 20-40 Billion USD





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Takoradi Port Expansion Project

Creating a future-proof Takoradi Port



The Takoradi Port Expansion

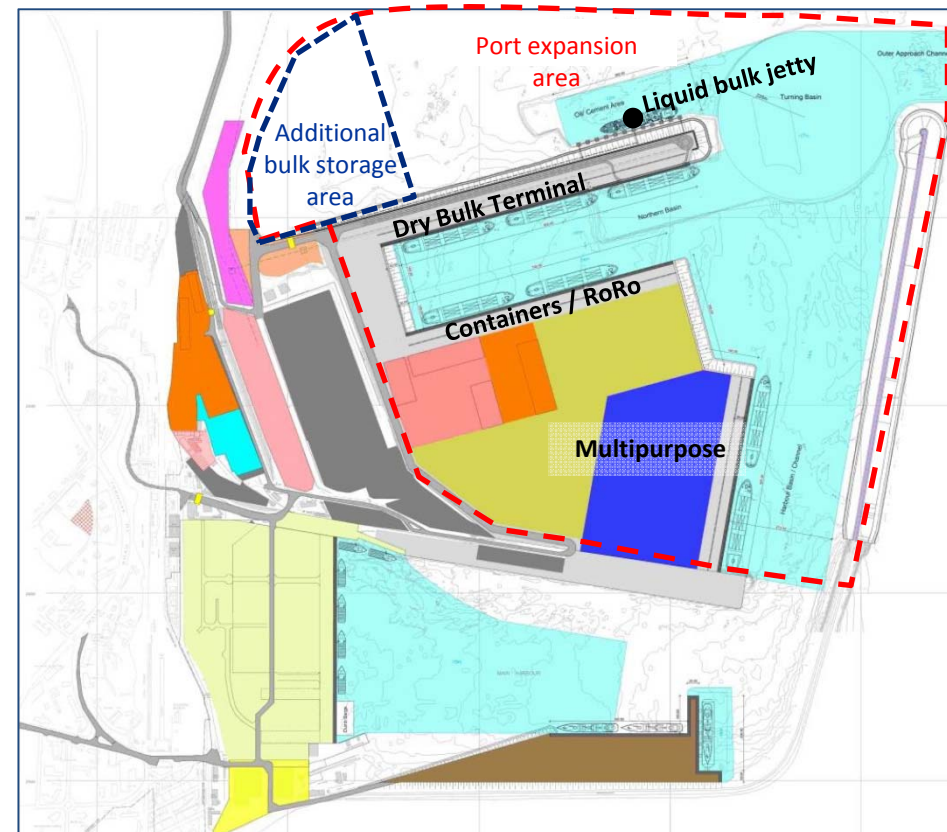
The expansion project aims to:

- modernize the port;
- provide necessary capacity expansions for cargo handling and storage;
- allow larger vessels to call the terminals;
- improve the operational efficiency of cargo handling operations.

Current works being carried out

Currently, the works of the expansion project are being executed by marine contractor Jan de Nul (JdN).

- Envisaged date of infrastructure completion: second half 2017
- Envisaged date of start operations dry bulk terminal: second half 2018



Masterplan Takoradi Port Expansion : GPHA, 2015

Ghanaian Port PPPs

Structured Approach based on Ghanaian PPP Policy



Ghanaian PPP Policy

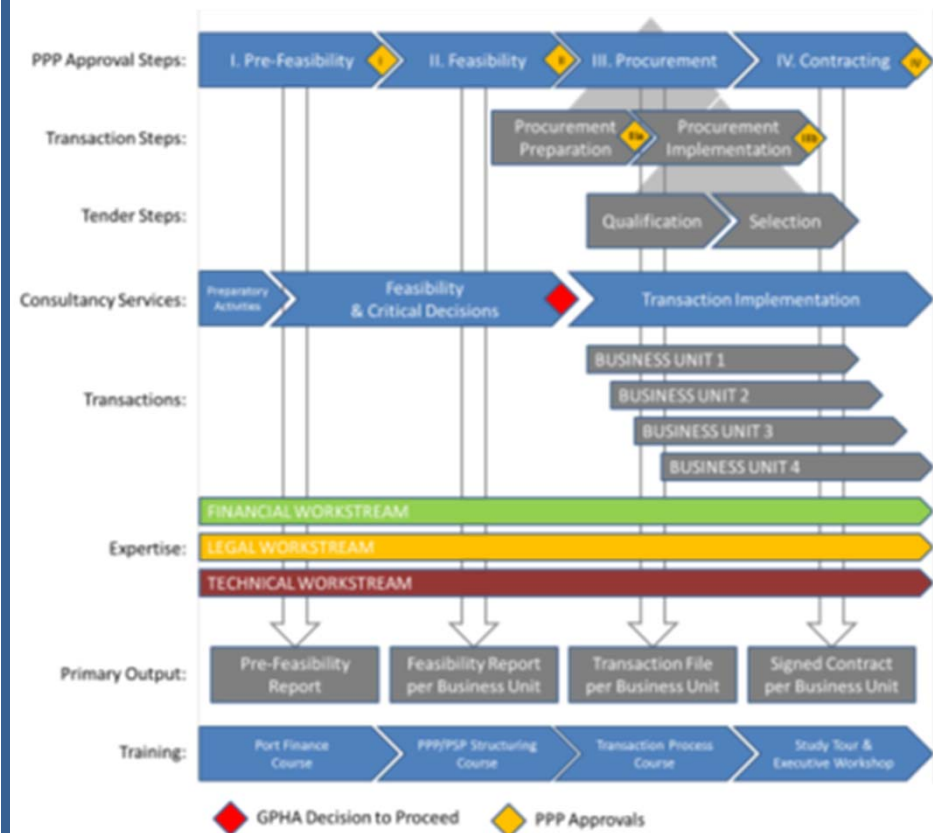
Guiding Principles

- Value for Money Optimization;
- Risk Allocation Optimization;
- Ability to Pay;
- Local Content & Technology Transfer;
- Safeguarding Public Interests and Consumer Rights;
- Environmental, Climate and Social Safeguards.

Formal Approvals by the MoF-PPP Unit:

- Approval I: Pre-Feasibility Study
- Approval II: Feasibility Study
- Approval IIIA: Procurement – Transaction Documents
- Approval IIIB: Procurement – Selection of Preferred Bidder
- Approval IV: Contracting

MTBS Takoradi Approach



Takoradi Port Expansion Project

Dry Bulk Transaction about to be brought to the market



Five Possible PPP Transactions in Takoradi

Under the Project five Business Units have been identified and approved by GPHA (2015):

1. Dry bulk terminal;
2. Liquid terminal;
3. Container/RoRo terminal;
4. Multi-purpose terminal; and
5. Offshore supply base.

First Transaction

The Pre-Feasibility Study has indicated the Dry Bulk Terminal as first Transaction, as:

- The construction has already commenced, hence the berths are planned to be operational 2nd half of 2018
- Dry bulk is the largest cargo segment handled in Takoradi
- Efficiency gains realized by efficient port operations (ability to handle largest vessels) most pressing

Feasibility Study

The Feasibility Study for the Dry Bulk Terminal was submitted and approved by the GPHA, Ministry of Finance / PPP Unit.

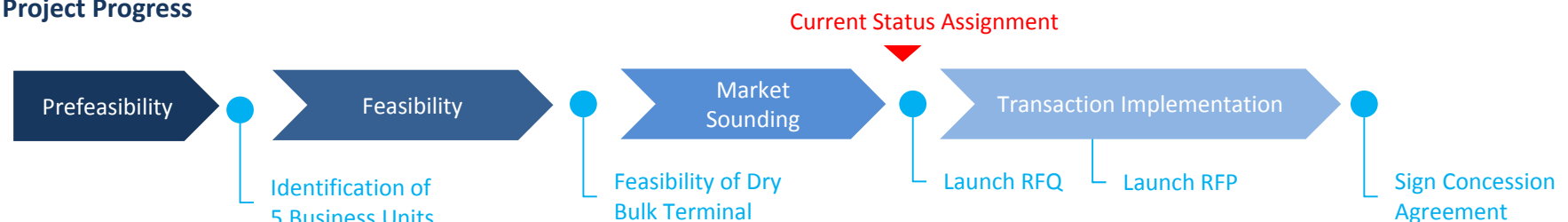
The Feasibility Study shows that the development and operation of the dry bulk terminal under a landlord PPP- and BOT structure is feasible from a financial, economic, technical, legal and environmental perspective.

Market Sounding

Before the launch of the Request for Qualification (RfQ) the Consultant organized a market sounding. The objective of the Market Sounding was to:

- Promote the Transaction of the Dry Bulk Terminal
- Discuss the main business principles of the Transaction with potentially interested market parties to improve attractiveness of the investment

Project Progress



Takoradi Port Expansion Project

The way forward...



- Takoradi Port Expansion – Construction ongoing
- Takoradi Dry Bulk Transaction – Soon to be launched
- Takoradi Container Terminal Feasibility Study – Submitted
- Takoradi Container Terminal Transaction – Soon to be launched
- Other Feasibility Studies and Transactions will follow





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White House, Rotterdam

maritime & transport business solutions

maritime strategy & finance advisors

t | +31 10 2865940

e | info@mtbs.nl

w | www.mtbs.nl

Wijnhaven 3E

P.O. Box 601

3000 AP Rotterdam

The Netherlands