

**PPP project prospects in the African Indian Ocean ports
“Opportunities for Value Optimization”**

9th Indian Ocean Ports & Logistics Conference

22nd of January 2015

maritime & transport business solutions



Introduction to MTBS

Overview of current PPPs in African Indian Ocean Ports

Prospected PPP Projects in African Indian Ocean Ports

Applicable PPP Models

Value Optimization through tailored PPPs

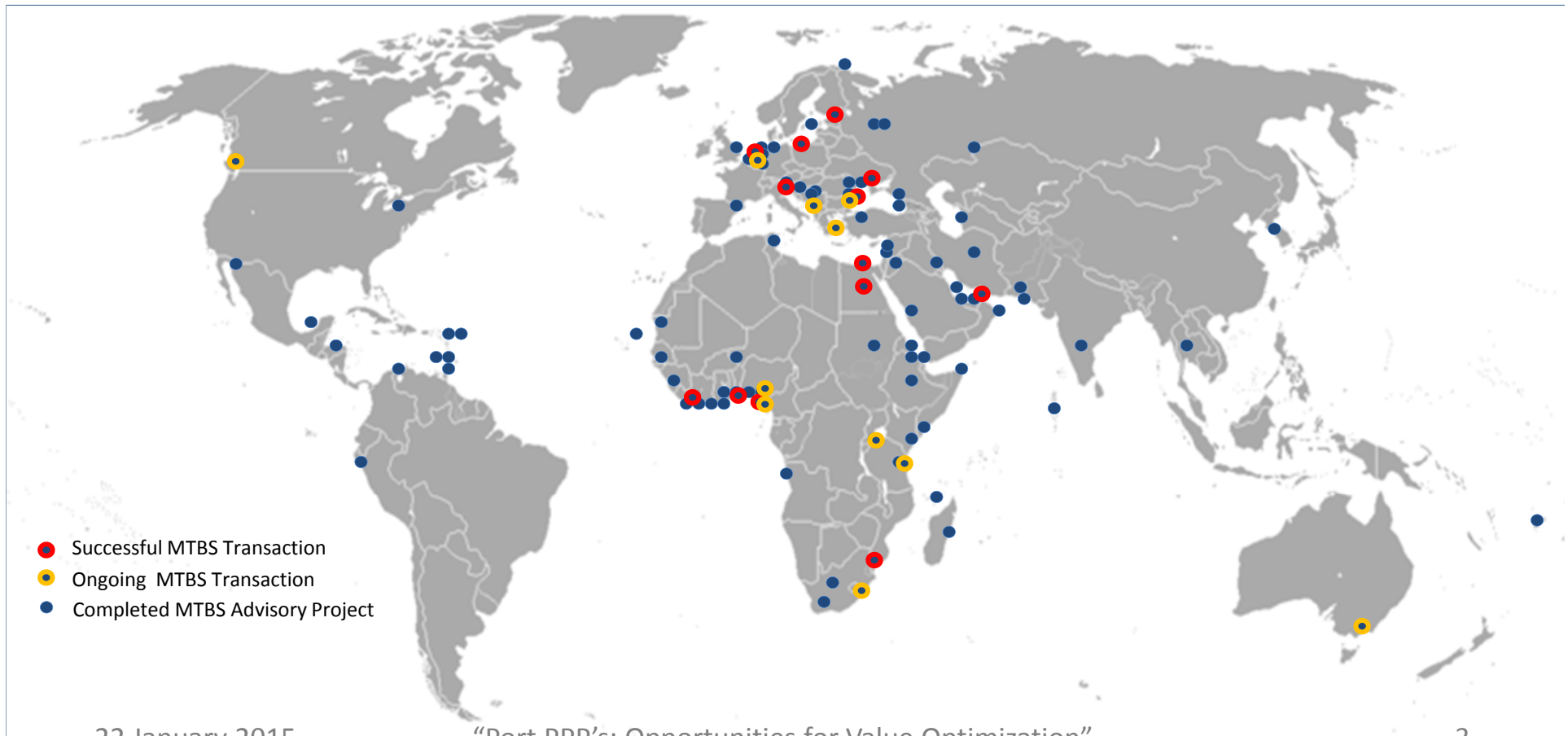
Conclusion

MTBS: Maritime & Transport Business Solutions

Leading Port Advisor in Sub-Saharan Africa




- Financial & Strategic Advisory from Rotterdam, The Netherlands
- Specialised in Port PPPs: Preparation & Execution
- Global Project Portfolio: Africa Core Market



MTBS: Maritime & Transport Business Solutions


Closed Transactions




Transaction Advisor 

Port of Bar, Montenegro

bid preparation for



for the acquisition of



deal size EUR 35 million

2013

Financial Advisor 

Standard Chartered Bank Nigeria


Lekki Port Lender's Market Consultant






Finance: \$800 million
Project size: \$1.5 billion

2012-2013

Financial Advisor 

DCT Gdansk S.A. Poland

Concession Expansion 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



Concession awarded to



Deal size EUR 37.5 million













2010-2011

Port of Bar	Lekki Port	Gdansk, Poland	Luka Rijeka
Transaction Advisor	Financial Advisor	Financial Advisor	Transaction Advisor
EUR 35 million deal size	1.5 billion USD project size	200 million EUR deal size	37.5 million EUR deal size
Equity deal	Finance deal	Project finance	Equity deal
Buy Side	Buy Side	Buy Side	Sell Side
2013	2012-2013	2012-2013	2011

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Closed Transactions



 <p>Financial Advisor</p> <p>Multi purpose Terminal East-2 Concession Burgas, Bulgaria</p> <p>Bid Preparation Navibulgar</p>  <p>Winning Bid Deal size: EUR 100 million</p> <p>2011</p>	 <p>Financial Advisor</p> <p>Project Finance Access Channel Maputo, Mozambique for Standard Bank South Africa</p>    <p>Deal size confidential 2010</p>	 <p>Transaction Advisor</p> <p>Tallinn Port Authority Estonia Muuga Container Terminal Concession</p>  <p>Concession awarded to</p>  <p>Deal size EUR 100 million</p> <p>2010-2011</p>	 <p>Financial Advisor</p> <p>Project Finance Port project Apapa, Nigeria</p>   <p>Market and tariff forecast Financial model Risk assessment</p> <p>Deal size confidential 2011</p>
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Port of Burgas	Port of Maputo	Port of Tallinn	Apapa, Nigeria
Financial Advisor	Financial Advisor	Transaction Advisor	Financial Advisor
100 million EUR deal size	Confidential deal size	100 million EUR deal size	Confidential deal size
Concession	Project Finance	Concession	Project Finance
Buy Side	-	Sell Side	-
2011	2011	2011	2011


MTBS: Maritime & Transport Business Solutions

Closed Transactions



Transaction Advisor

Freeport of Monrovia, Liberia
Container Terminal Concession



Concession awarded to
APM TERMINALS Linberg Global Trade

Deal size US\$ 120 million

2009-2010

Financial Advisor

Port of Amsterdam Authority
The Netherlands

Corporatization Port of Amsterdam




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

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Ongoing Transactions



Port of Vancouver, Canada	Port of Durban, South Africa	Port of Burgas, Bulgaria	Port of Moerdijk, Netherlands
Financial Advisor	Transaction Advisor	Transaction Advisor	Transaction Advisor
Commercial advisory services	PPP-scheme Durban Dig-out port	Equity transaction Navibulgar container terminal	Concessioneering terminal
Concession	Concession	Management Contract Shareholders Agreement	Concession
Sell Side	Sell Side	Private deal	Sell Side



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Ongoing Transactions



Ibom Deep Sea Port, Nigeria	Greek Marinas and Ports, Greece	Port of Onitsha, Nigeria	Port of Bujumbura, Burundi
Transaction Advisor	Transaction Advisor	Transaction Advisor	Transaction Advisor
Concession greenfield Deep Sea Port	Privatisation of Greek marinas and commercial ports	Concessions of inland river multi-purpose port	General cargo port concession
Concession	Concessions	Full Bid Preparation	Concession
Sell Side	Sell Side	Buy Side	Sell Side





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Current PPPs in the African Indian Ocean ports

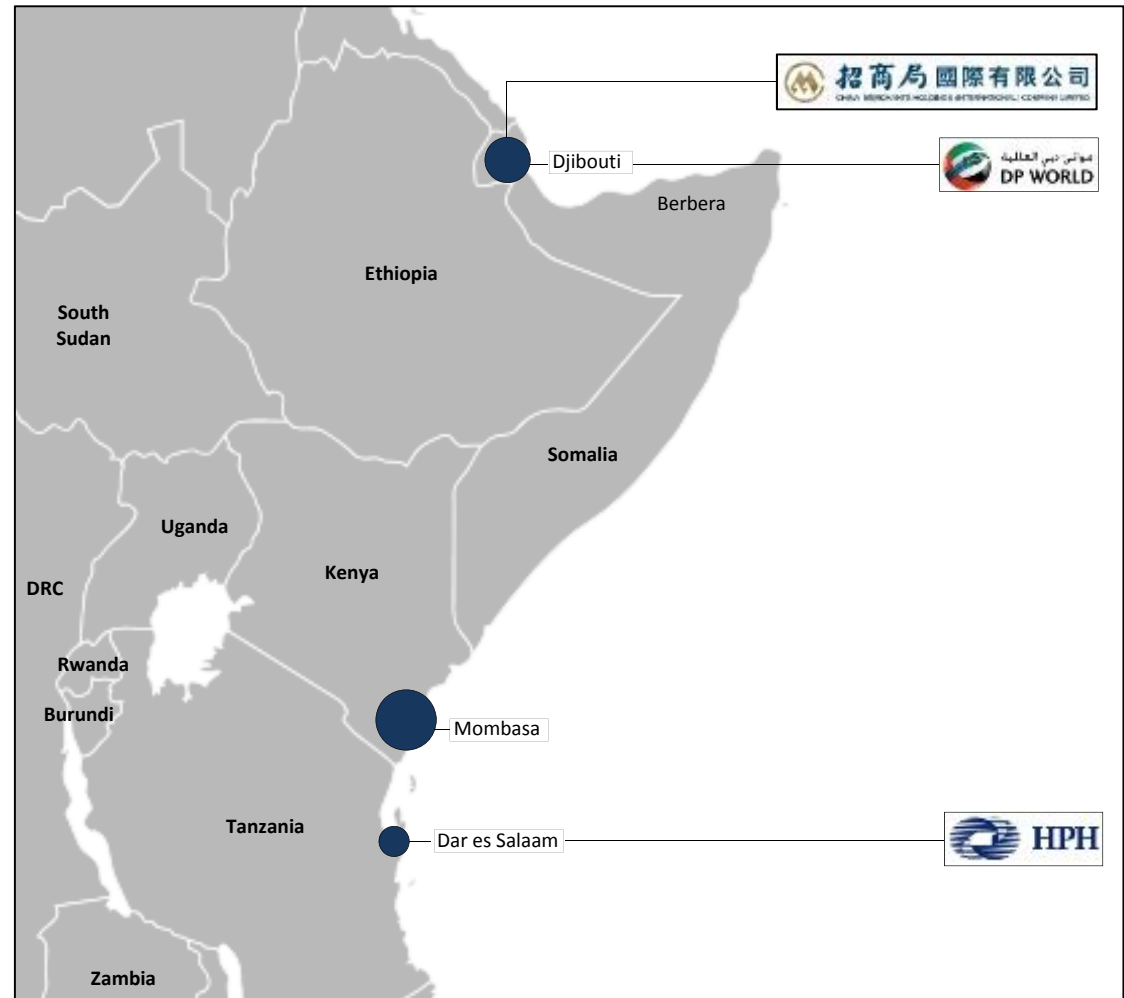
East African Ports

- **Djibouti PDMC:**

- Doraleh Container Terminal
- 30 years BOT concession
- PAID 67%, DP World 33%
- 23.5% of shares of PAID are owned by CMHI

- **Dar es Salaam Concession:**

- Tanzania International Container Terminal Services
- 10 year concession
- Hutchison Port Holdings

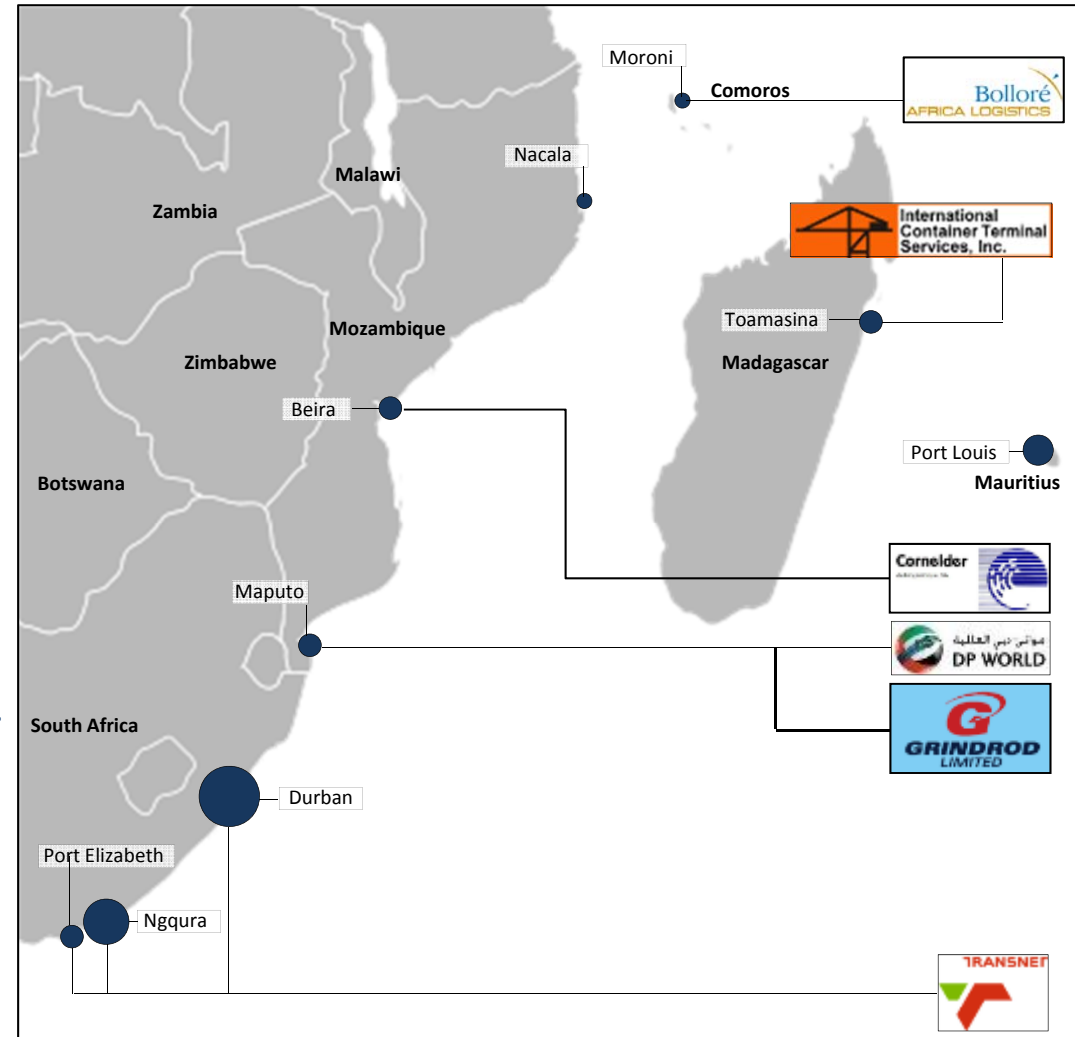


Current PPPs in the African Indian Ocean ports

Southern African Ports



- **Moroni Management Contract**
 - Moroni Terminal
 - 10 year management contract
 - Bolloré Africa Logistics
- **Toamasina BOT:**
 - Madagascar International Container Terminal Services
 - 20 years BOT concession
 - ICTSI
- **Beira:**
 - Cornelder de Mozambique (CdM)
 - 25 + 15 years concession
 - CFM (33%) and Cornelder Holding (67%).
- **Maputo PDMC:**
 - Maputo Port Development Company
 - 30 year master concession
 - CFM (49%) and Portus Indico (51%).
 - Portus Indico: Grindrod (48.5%), DP World (48.5%) and SARL (3%).





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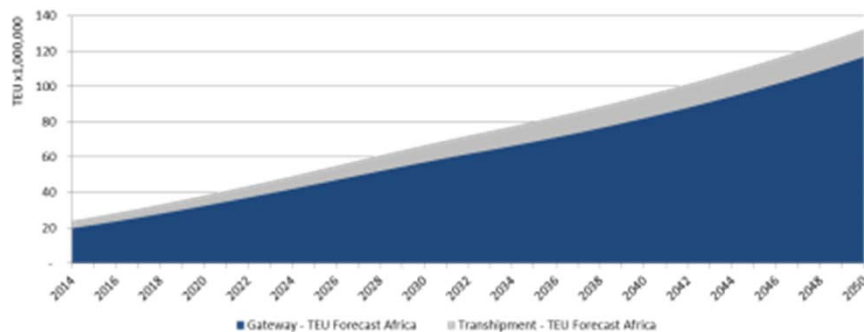
PPP project prospects in African Indian Ocean ports

MTBS carried out an Africa wide inventory of port PPP projects.

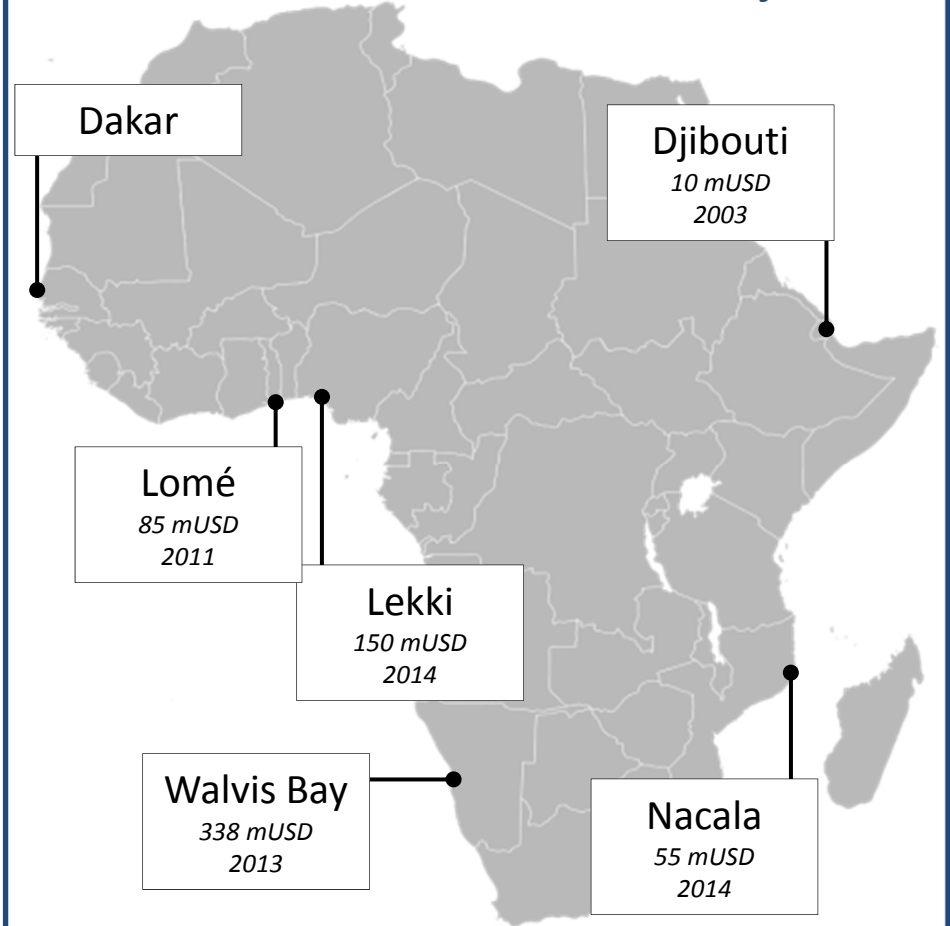
MTBS Assigned to Identify and Package Port Projects for AfDB

“MTBS has been contracted by the African Development Bank to identify future port PPP projects and prepare proposals for both financing and advisory services.”

Throughput from 22mTEU (2013 est.) to 132mTEU (2050)



AfDB Financed African Port Projects



PPP project prospects in African Indian Ocean ports

Africa is getting prepared for this century's port development boom

Total projects

114 projects \$ > 79 billion USD

Container projects

57 projects \$ > 40 billion USD TEU 40 million TEU

Dry bulk projects

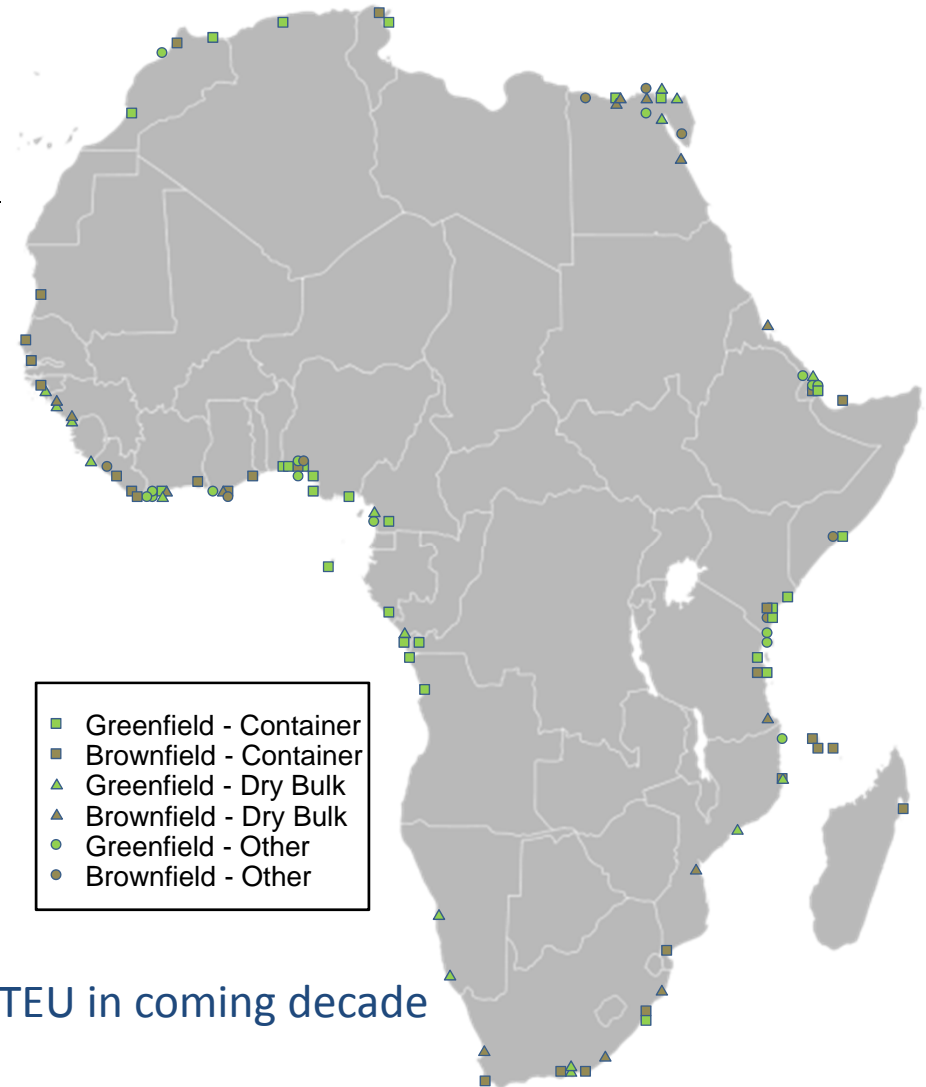
31 projects \$ > 27 billion USD

Total projects – planned start construction before 2018

67 projects \$ > 55 billion USD

Total projects – planned start construction after 2017

47 projects \$ > 24 billion USD



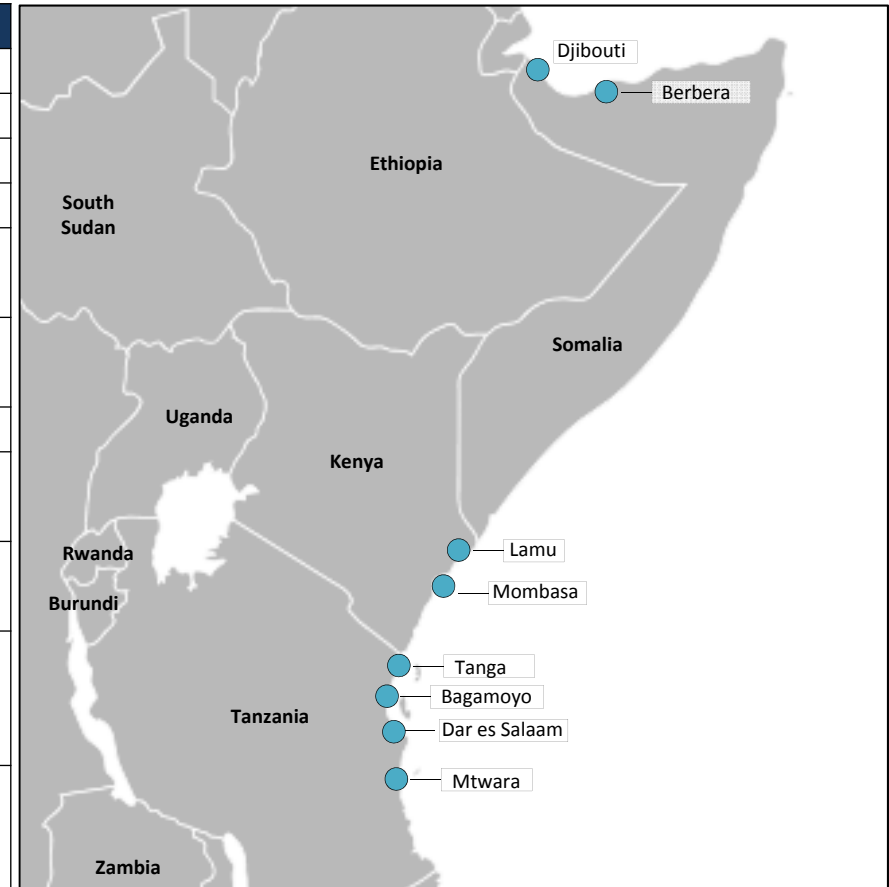
First wave of port expansions set to render 40 mTEU in coming decade

PPP project prospects in African Indian Ocean ports

East Africa



Country	Port	Project
Djibouti	Djibouti	Doraleh Container Terminal Phase II
Djibouti	Djibouti	Doraleh Container Terminal 2
Somalia	Berbera	Berbera Port Rehabilitation
Kenya	Lamu	Lamu Port Development project
Kenya	Mombasa	Relocation of Kipevu Oil Terminal
Kenya	Mombasa	Mombasa Port Development Project
Tanzania	Bagamoyo	Bagamoyo Greenfield Port Development
Tanzania	Dar es Salaam	Berth 13-14 Container Terminal
Tanzania	Dar es Salaam	Rehabilitation of berths 1-7
Tanzania	Mtwara	Design, Build, and Financing for Construction of four Additional Berths at Mtwara Port
Tanzania	Tanga	Design, Build, and Financing of Development of New Port at Mwambani Bay-Tanga



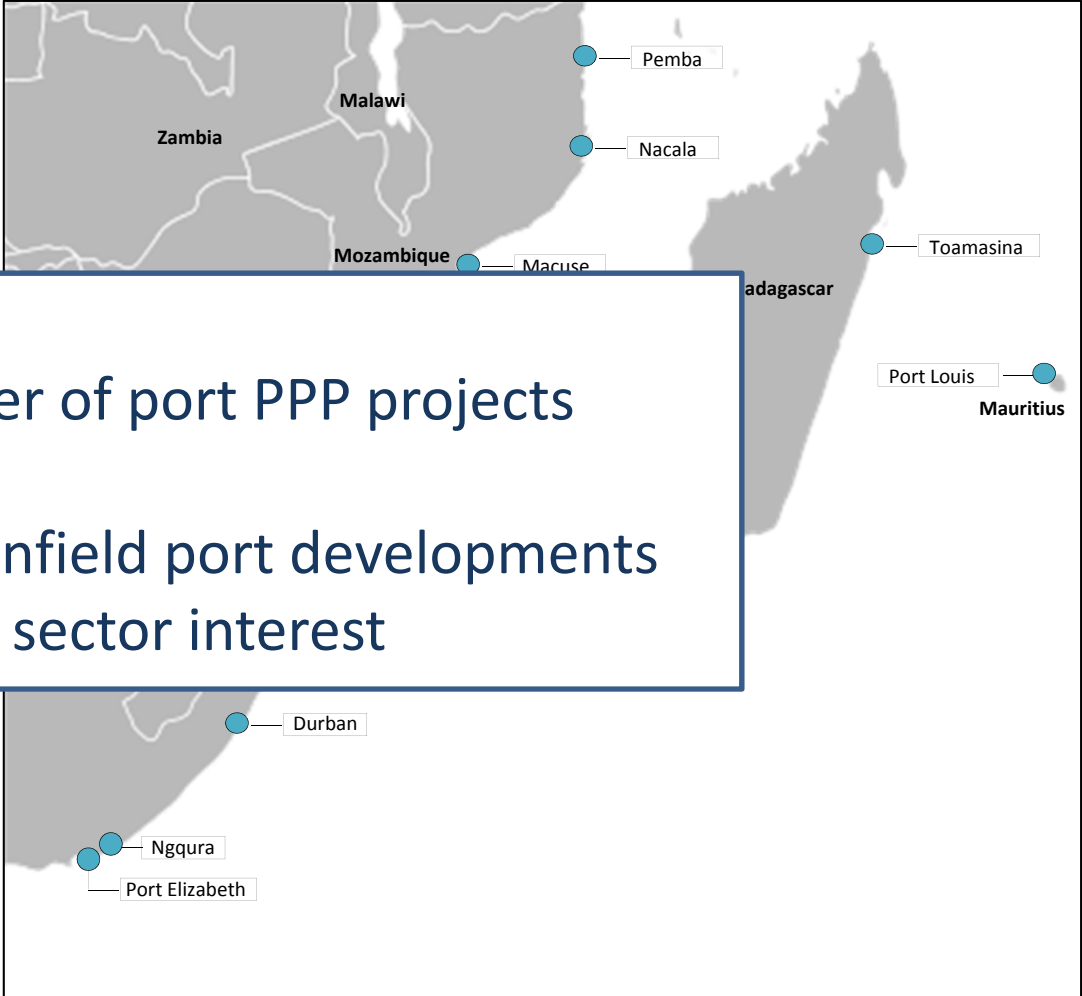
PPP project prospects in African Indian Ocean ports

Southern Africa

Country	Port	Project
Madagascar	Toamasina	Toamasina Expansion Project
Mauritius	Port Louis	Port Louis Container Terminal Extension and Dredging
Mozambique	Beira	Beira port expansion and rehabilitation
Mozambique	Macuse	Macuse Coal Export Port
Mozambique	Maputo	
Mozambique	Nacala	
Mozambique	Nacala	
Mozambique	Pemba	
Mozambique	Ponta Techobanine	
South Africa	Durban	
South Africa	Durban	Development Durban Dig-out port
South Africa	Ngqura	Manganese export and breakbulk terminal
South Africa	Ngqura	Liquid bulk terminal
South Africa	Ngqura	Container terminal expansion
South Africa	Port Elisabeth	Expansion container terminal

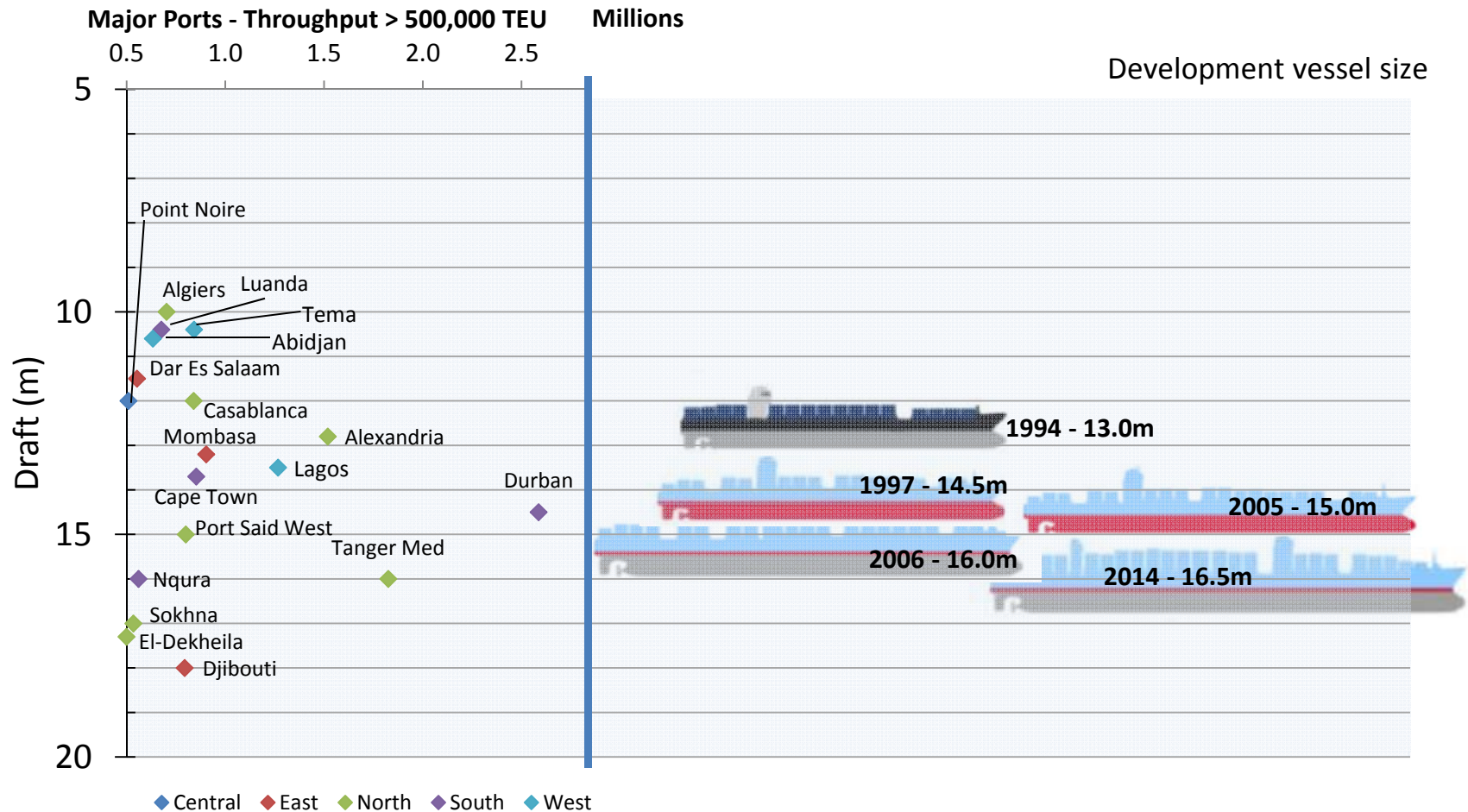
Conclusion:

- Large number of port PPP projects scheduled
- Several greenfield port developments
- High private sector interest



PPP project prospects in African Indian Ocean ports

Besides expansion of existing ports, the increase in vessel size requires greenfield port development

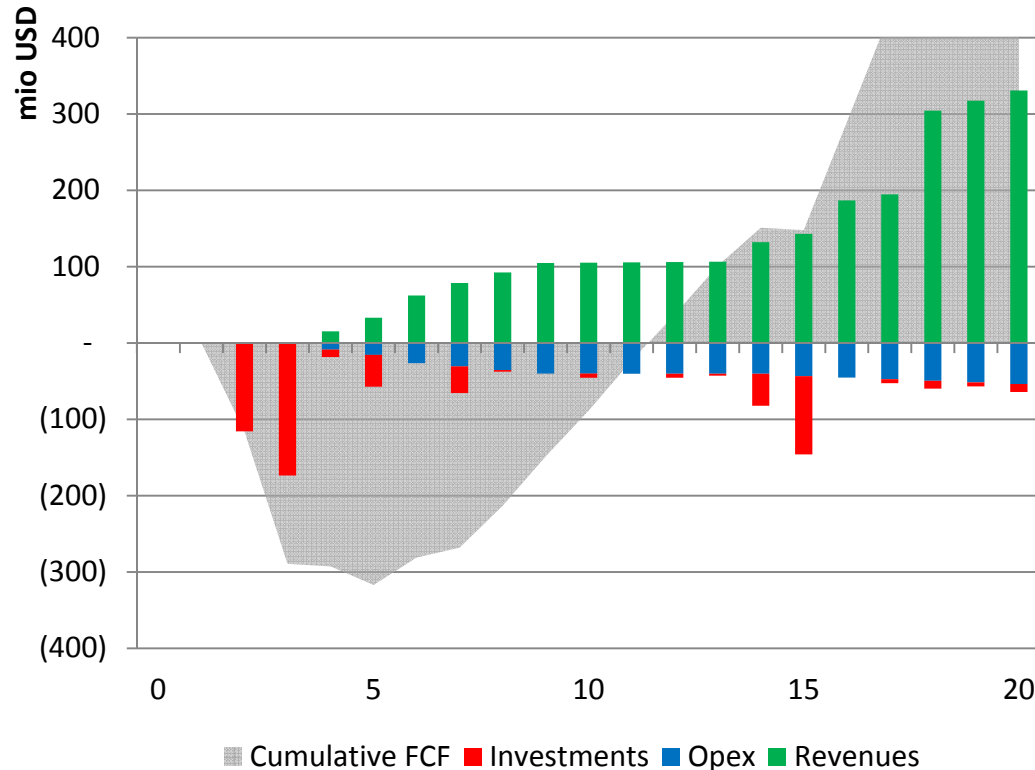


PPP project prospects in African Indian Ocean ports

Greenfield ports require dedicated PPP solutions



Cash Flow Diagram



- This Greenfield port project has a project IRR of **19%** and a **positive NPV**.
- However, the first year of **positive Free Cash Flow** is in year 6
- The **pay-back period is 10 years** from initial investment.
- Vale created after the expansion investments in year 15 are not of interest for the lenders!
- So, how bankable is this project for project financing?



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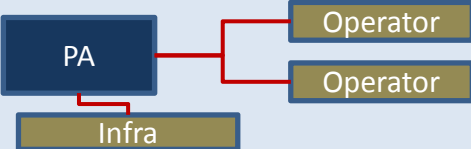
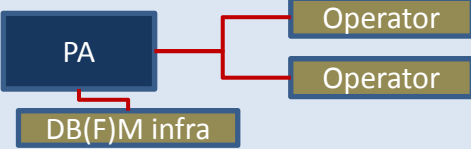
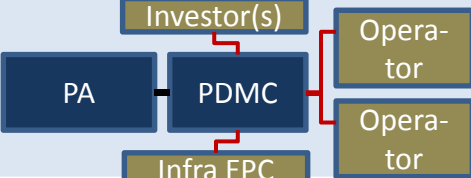
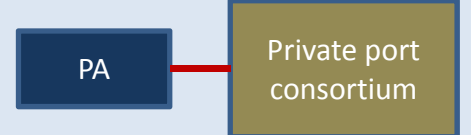
Applicable PPP Models

Value Optimization through tailored PPPs

Conclusion

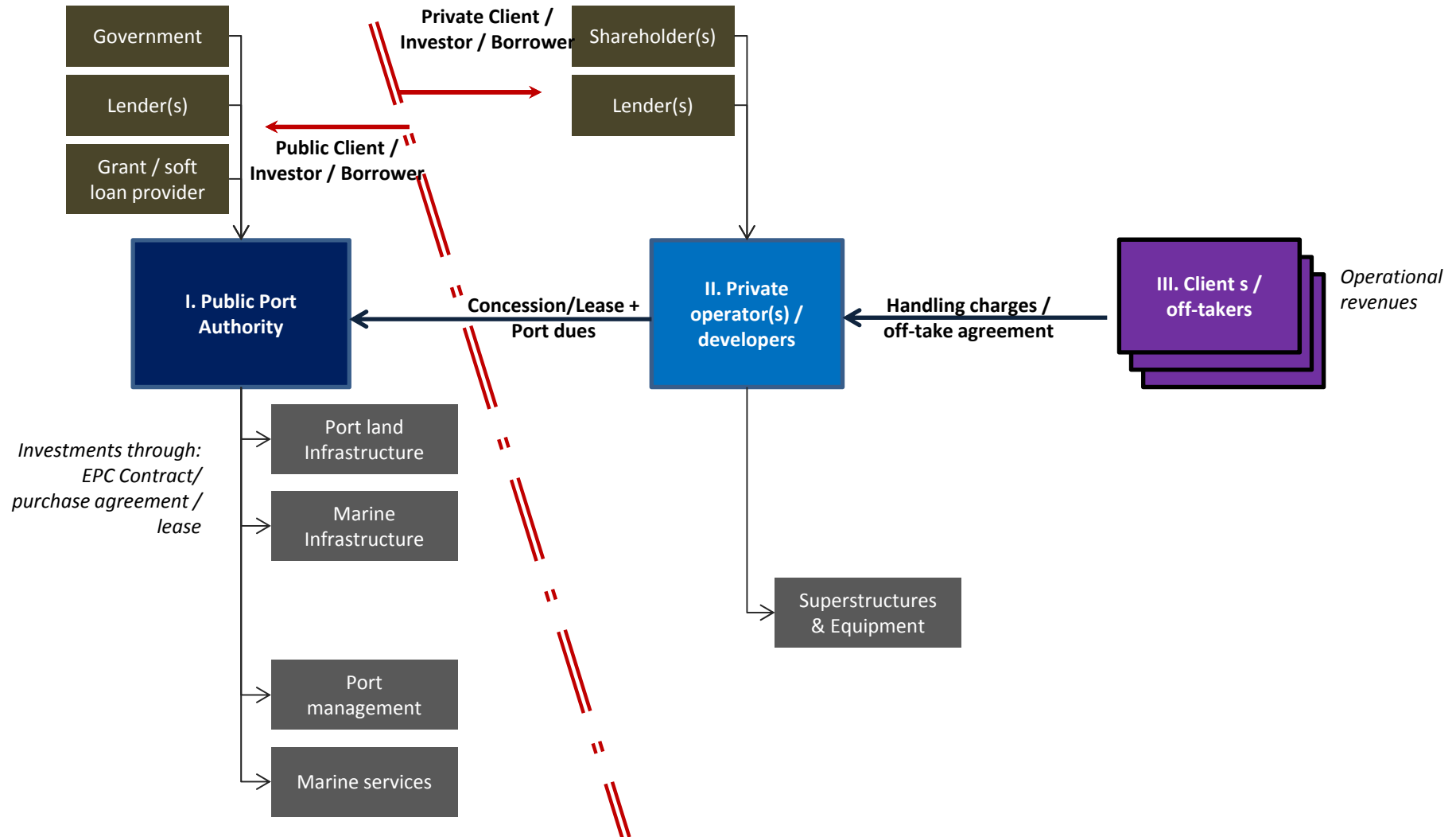
Applicable PPP models

Four likely applicable PPP models identified

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

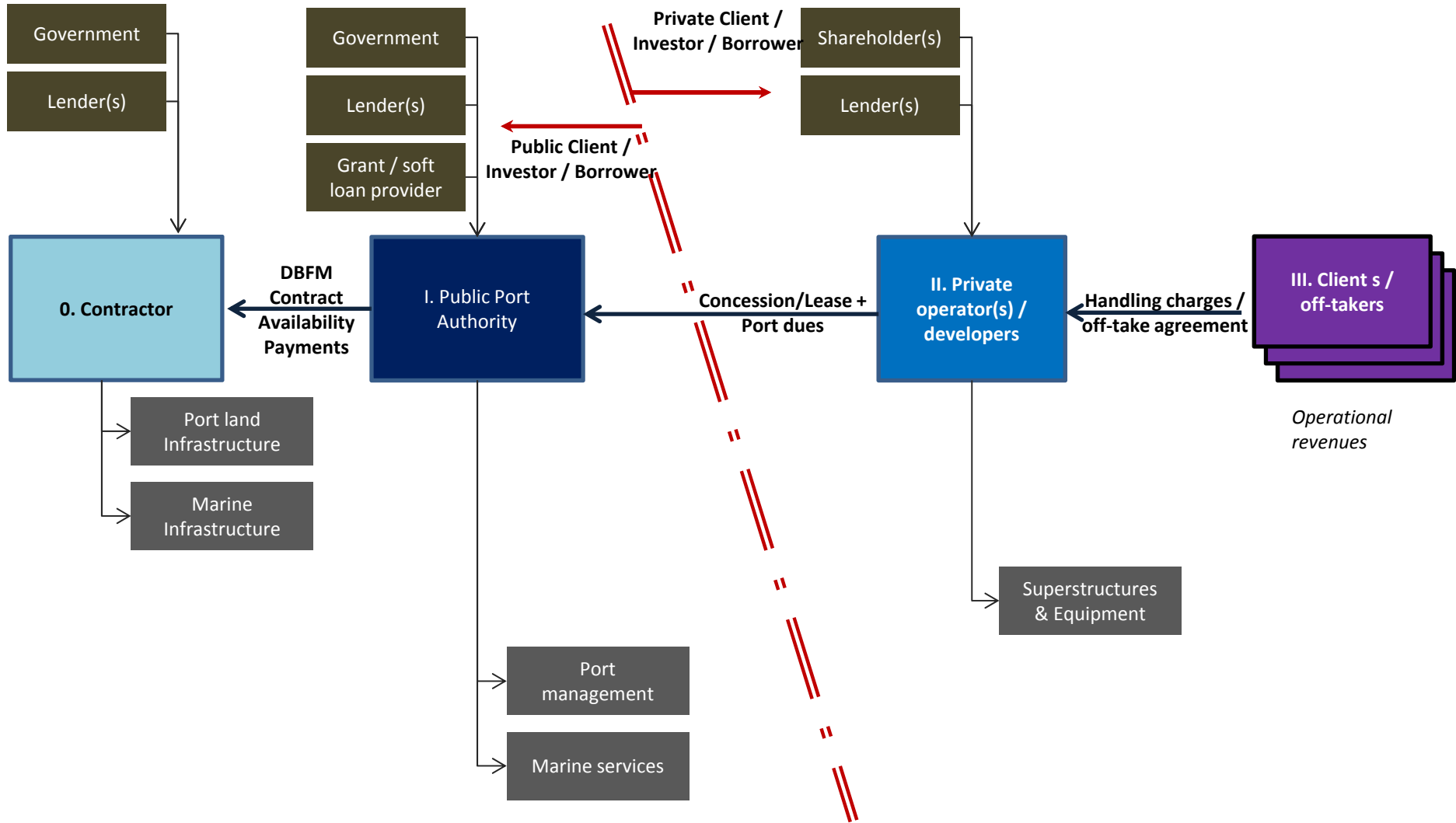
Applicable PPP models - Landlord Structure

Public PA responsible for investments in land infrastructure and for port management



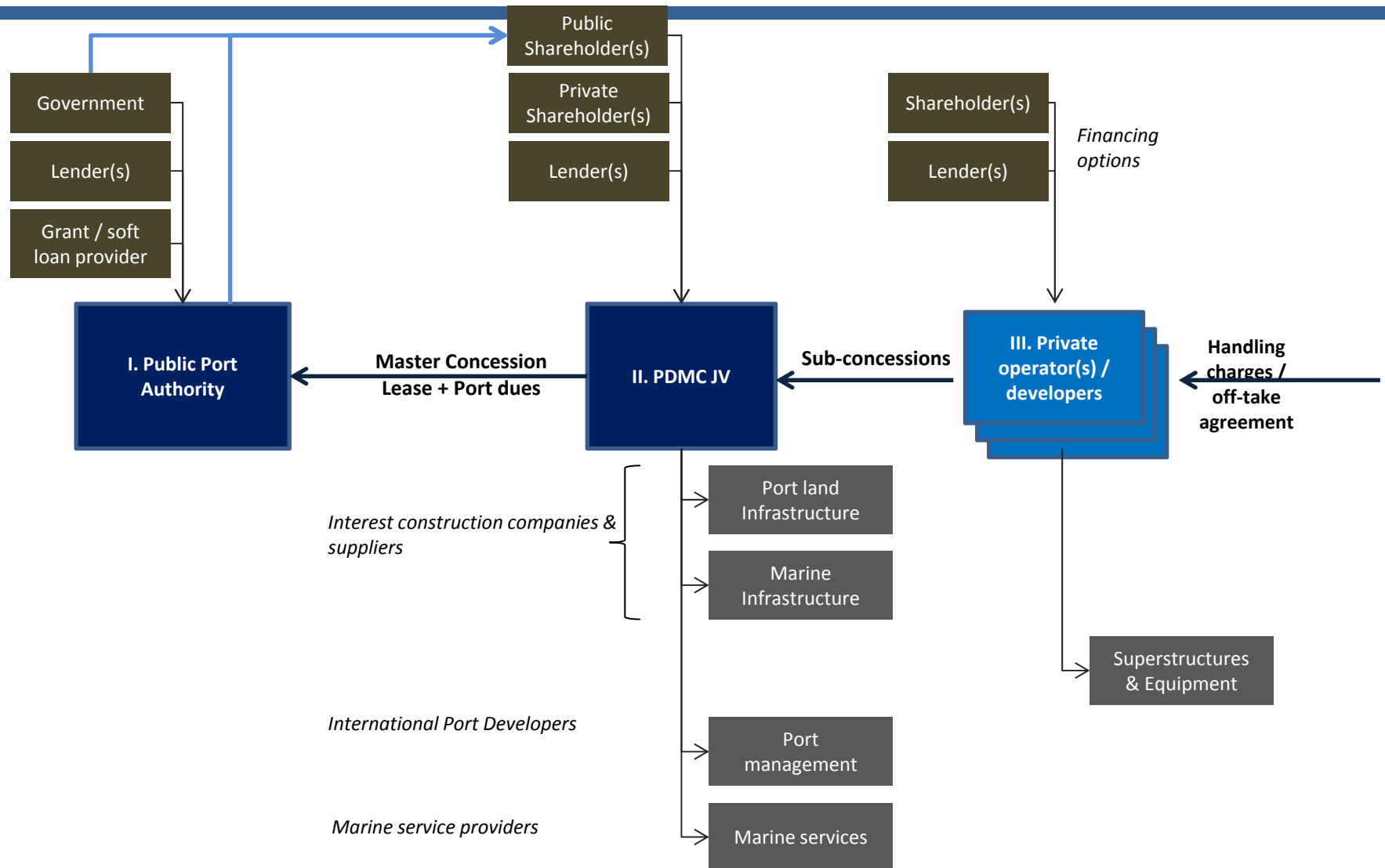
Applicable PPP models - Landlord with DB(F)M

Infrastructure Contractor responsible for investments that are recovered by availability payments



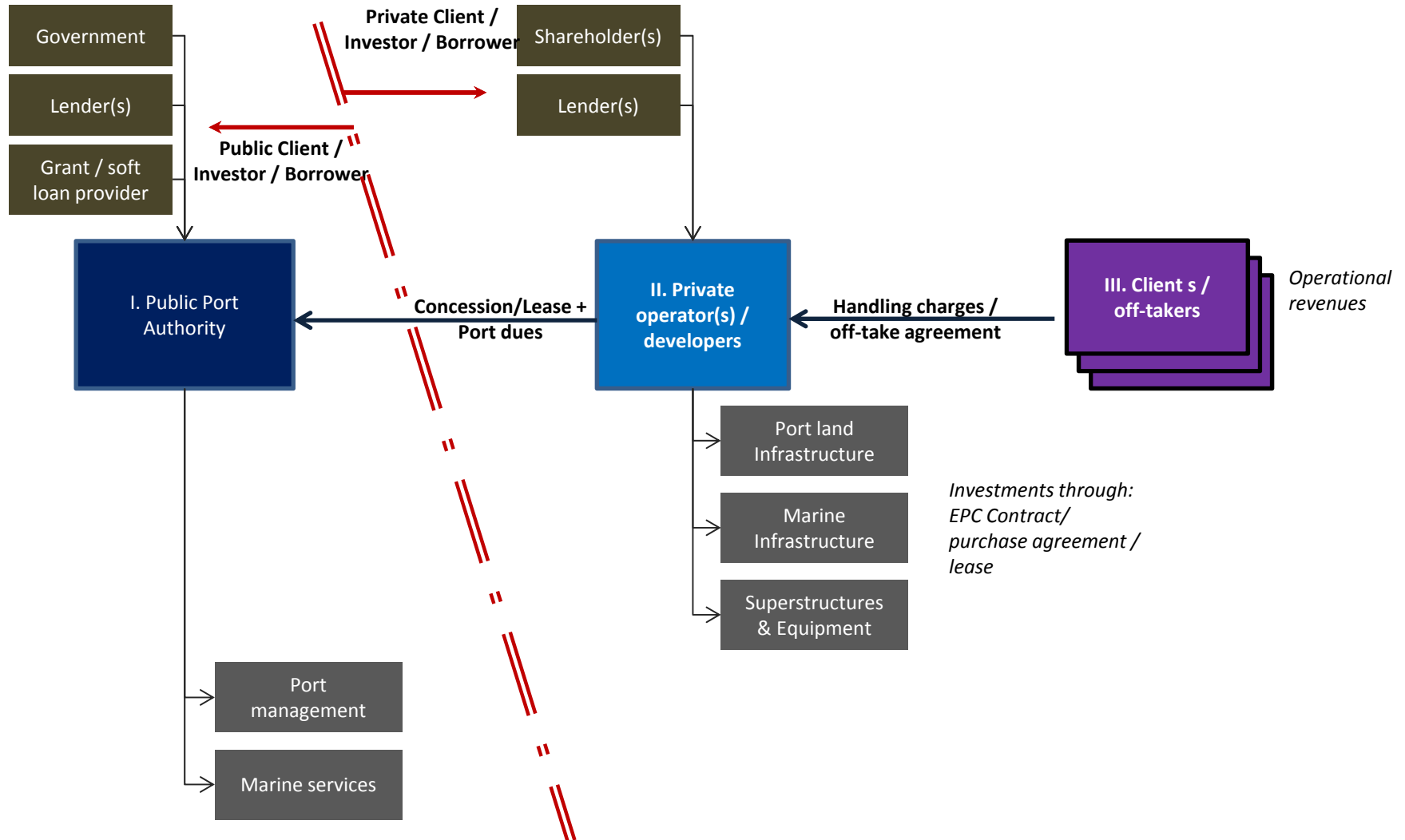
Applicable PPP models - PDMC

Combination of public and private responsibilities and investments



Applicable PPP models - BOT

Private operator responsible for investments in land, infrastructure and superstructure





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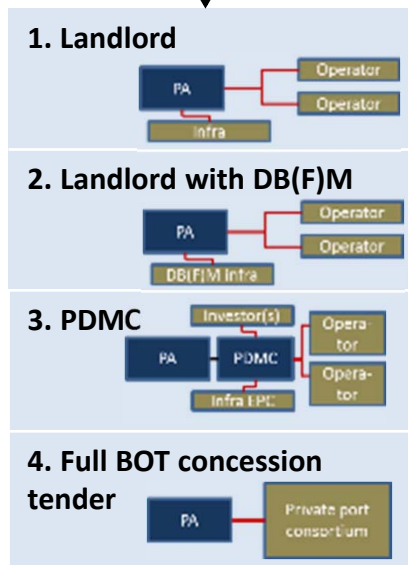
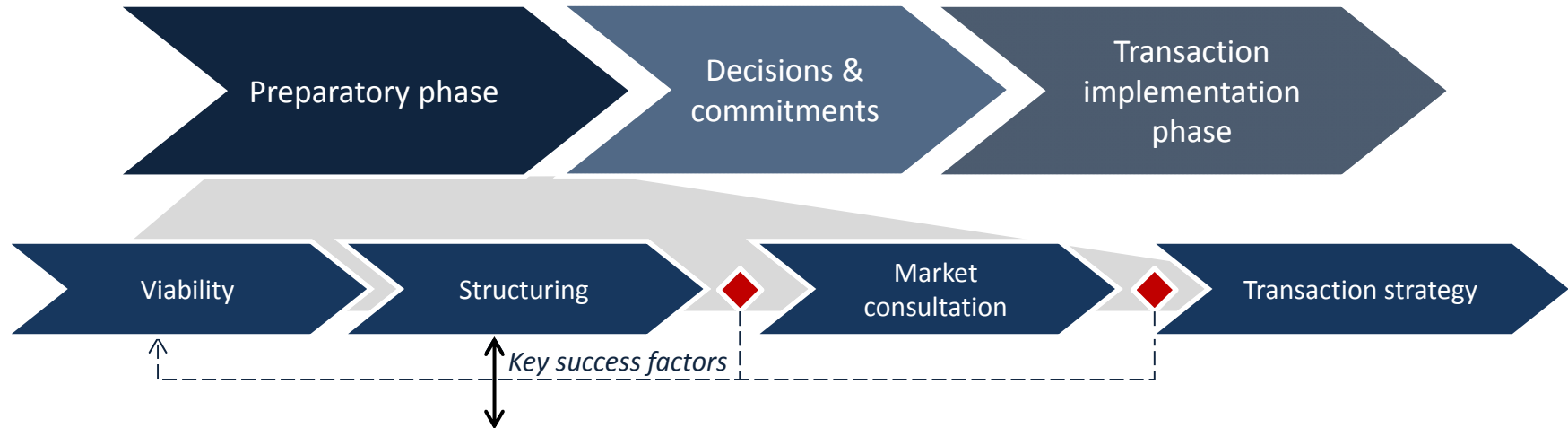
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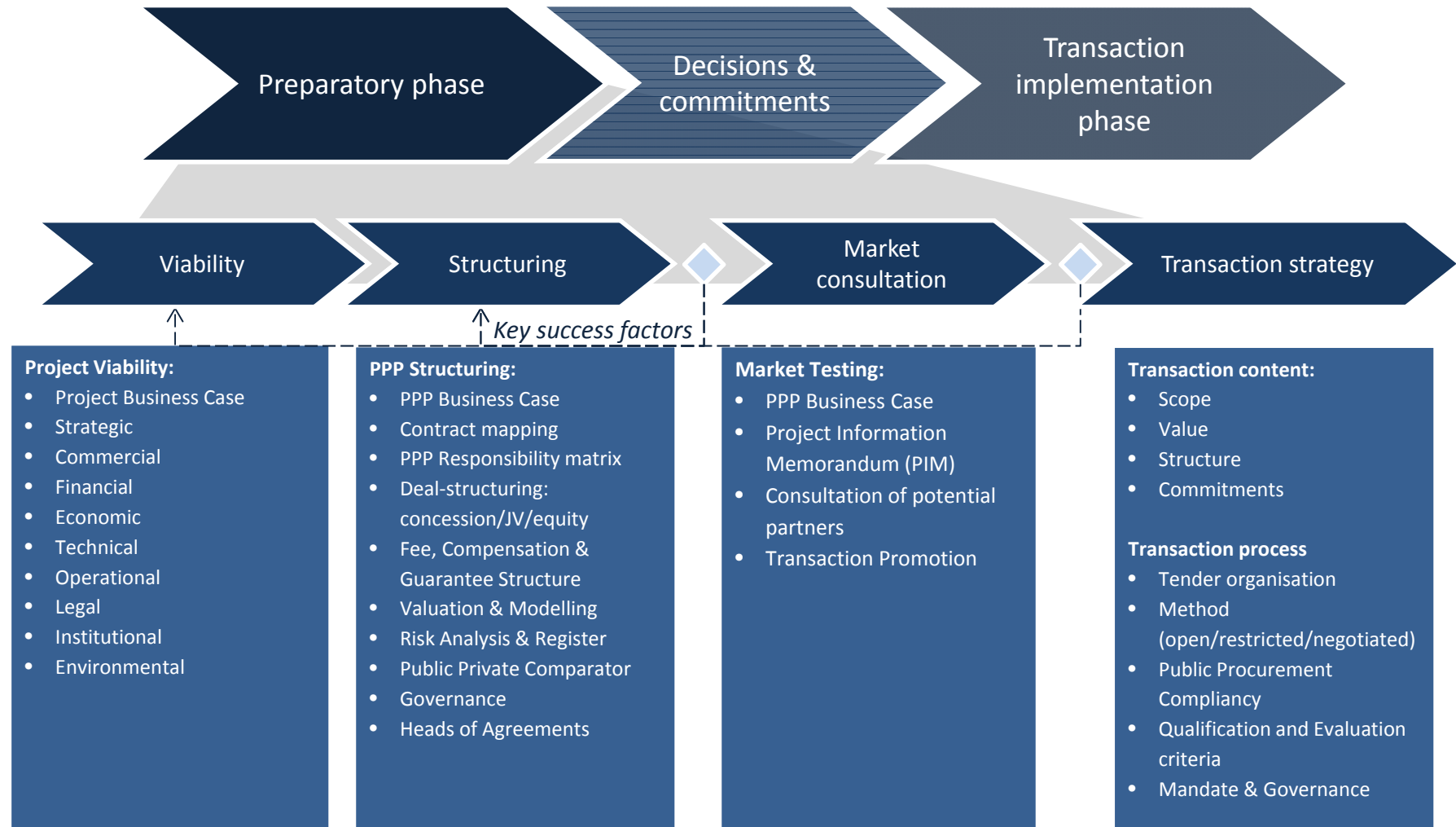
Value Optimization through tailored PPPs

Tailoring of the optimal PPP structure is an important step in transaction preparation



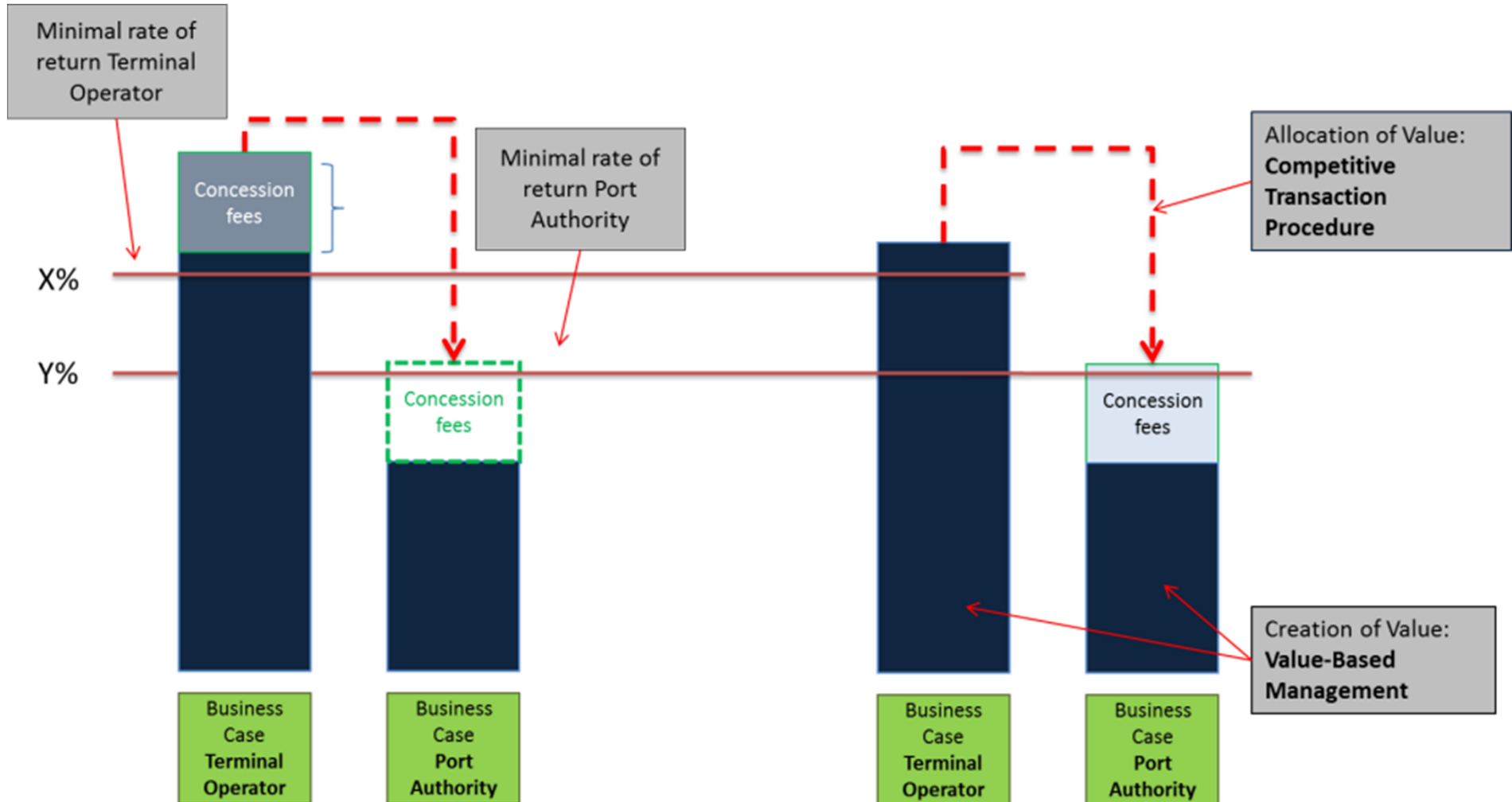
Value Optimization through tailored PPPs

Business Case Approach secures project feasibility, PPP Structure and Bankability



Value Optimization through tailored PPPs

Risk allocation and competitive tendering lead to optimal value creation



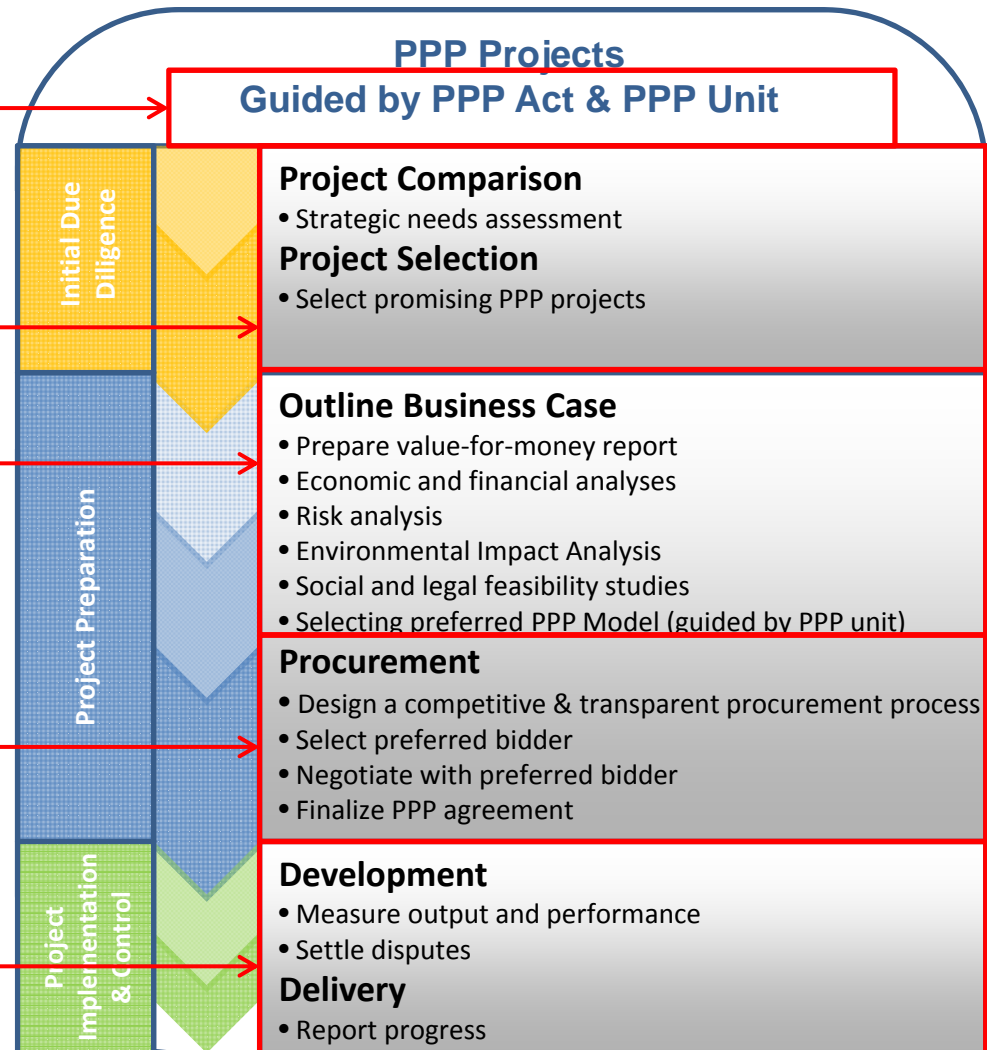
Value Optimization through tailored PPPs

Africa is moving towards best class PPP implementation



PPP procurement approach

- Including:
 - Embedded in legislation
 - Sound preparation
 - Steps & products: ECBA, EIA
 - Professional procurement
 - Strong governance
- Early adopters Africa:
 - Ghana
 - Nigeria
 - South-Africa
 - Kenya





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Tailored PPP structures support the trend towards more private funding of port developments in African Indian Ocean ports

More privately funded port developments are seen in African Indian Ocean ports due to:

- a substantial port capacity shortage
- consequential profitable port business (tariffs are high)
- limited public budget
- increasing institutional acceptance and facilitation.

There is a variety of PPP options out there:

- Landlord Concessions
- BOTs
- PDMCs
- Other models

Tailoring towards the optimal PPP structure is crucial, since it:

- depicts the way risks are allocated over the public and the private parties involved
- is an important means for the public sector to ensure its strategic objectives are met
- drives project bankability
- determines the required profile of private sector bidders and the procurement plan



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