

21th INTERMODAL AFRICA 2019

DJIBOUTI- 20th of March 2019

Market outlook on containerization and multi-modal transportation



CTS Consulting,
conseil en logistique portuaire et
multimodale

CTS

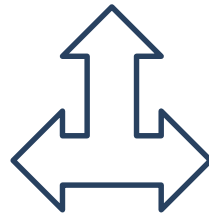
« An Advisory Firm belonging to a Group fully Dedicated to Port Industry »



Port and Terminal Assets
Assets Management and Investment
Since 2015



Consultancy
Maritime and Ports Sectors
Since 2005



Société
Manutention
Portuaire
Aquitaine

Deep Sea Terminal Operator
Bordeaux, France
Since 2015

CTS is an **independent consultancy company** dedicated to **port development, shipping and freight industry**. CTS assists institutional and private clients in **port, shipping & multimodal projects**. We successfully deliver pragmatic **advice for maritime and inland projects**.

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www.portea.lu



www.verdontc.com



CTS Case Study

TCSO Project in Bordeaux (France)



TASK	CTS	SMPA	PORTEA
➤ Project Feasibility Study (Market, technical, financial):	✓		
➤ PPP Structuring (25 years Lease Contract)	✓	✓	
➤ Debt Structuring and Financing: (95% Gearing)	✓		✓
➤ Funding			✓
➤ Equipment Purchase and Commissioning	✓	✓	
➤ Engineering and Operations process Design	✓	✓	
➤ Deep Sea Terminal Management	✓	✓	
➤ Dry Port Management	✓	✓	



Deep Sea Terminal

Logistic Free Zone (100 Hectares)



Container Terminal In Le Verdon



Shuttle (First Stage) x 3 / Day



Bruges Terminal

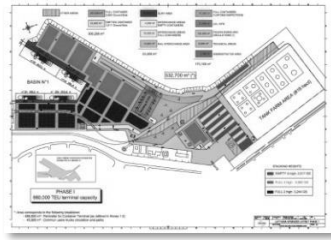


Présentation TCSO

Dry Port Terminal

CTS fields of expertise

Infrastructure development



Port terminal



Multimodal platform



Logistics



- ⦿ Master plans
- ⦿ Infrastructure plans
- ⦿ Operational design
- ⦿ Equipment specialization
- ⦿ Environment
- ⦿ Financial analysis
- ⦿ Business plan
- ⦿ Market studies
- ⦿ Strategic analyses
- ⦿ Socio-economic impacts
- ⦿ PPP drafting and negotiation
- ⦿ Tender management
- ⦿ Partnerships

CTS Expertises

Over 200 Port Missions Track Record

Market and strategy analysis

- ▶ In-depth industry market studies by Branches
- ▶ Socio Economic development forecasts
- ▶ **Traffic analyses and projections**
- ▶ Interview campaigns of shippers , consignees, forwarders and others
- ▶ Benchmarks
- ▶ Strategic positioning
- ▶ SWOT analyses

~100 Studies

Technical and operational design

- ▶ **Operations Analysis** : audit, performance analysis, Key Performance Indicators (KPI)
- ▶ **Technical Design** : layouts, operational concepts, equipment specifications, maritime & hinterland interface
- ▶ **Master plans**: quay and yard design, definition and planning of infrastructure, equipment, manning, IT...

~50 Projects

Financial modelling

- ▶ Profit and Loss, Balance sheet
- ▶ OPEX, CAPEX, Financing
- ▶ ROI, ROE, NPV
- ▶ Risk Analysis
- ▶ Tariff policy: revenues, ticket and license fees...
- ▶ Full Business Plan
- ▶ Operator's vs Port Authorities return on investment

~40 Business Cases

PPP contract assistance

- ▶ PPP Structuring
- ▶ PPP process management public (landlord) or private (candidate)
- ▶ Preparation of EOI, RFQ, RFP
- ▶ Creation of decision-making tools
- ▶ Selection of candidates
- ▶ Assistance during negotiation of contract terms
- ▶ Partnership assistance *~30 PPP Projects Deals*

They Trust Us

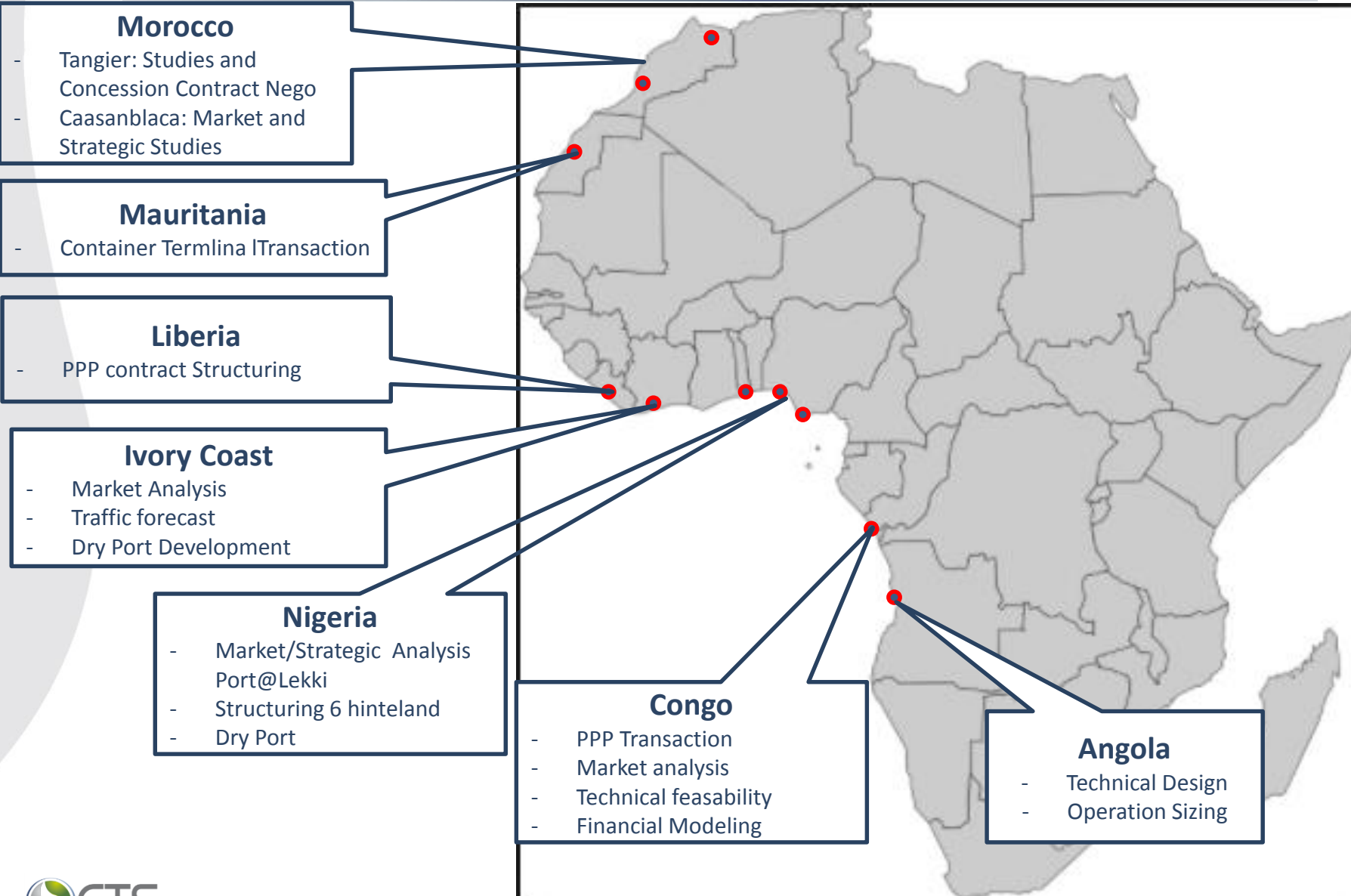
► Secteur public



► Secteur privé



CTS Reference in Africa



Agenda de la présentation

Multimodal versus Port Performance

West Africa Case Study

Multimodal : Strategic for Maritime Port Development

-European experience-

Market Outlook (< 2009)

- ▶ Market Growth: > 10%/year
- ▶ Loading Factor Shipping Lines: >90%
- ▶ Loading Factor Terminal Operators: > 90%

Strategy

- ▶ Sea Side Driven Market
- ▶ Focus on Maritime Port Capacity
- ▶ Increase “inland Services capacity” to release Maritime Port Congestion
⇒ Advanced Gateway inland Ports*



Market Outlook (> 2010)

- ▶ Market Growth: < 5%/year
- ▶ Loading Factor Shipping Lines: <80%
- ▶ Loading Factor Terminal Operators: > 70%

Strategy

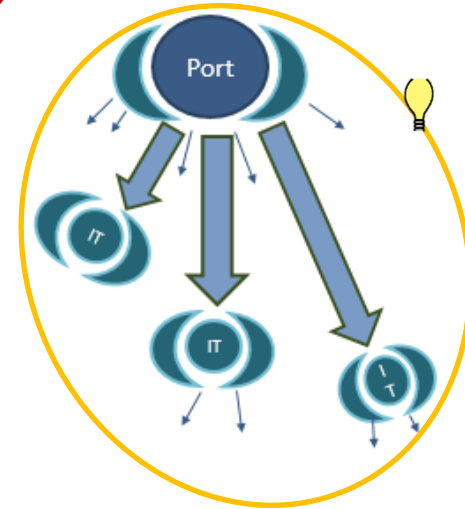
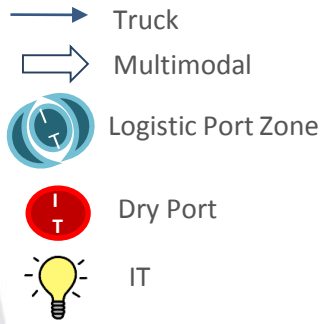
- ▶ Land Side Driven Market
- ▶ Focus on Hinterland
- ▶ Increase “ Logistics Services to shipper/Consignee” to serve Port Interest
⇒ Logistics Inland Center
⇒ Multimodal development



« Whatever Crisis or Not: Multimodal Key Driver of Port Performance »

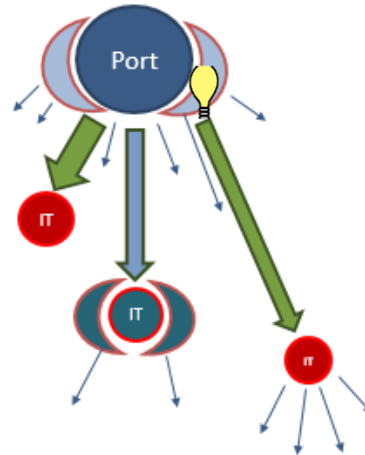
**Inland Maritime Port Connected by Multimodal Services Shuttle*

Multimodal : Conceptual Approach



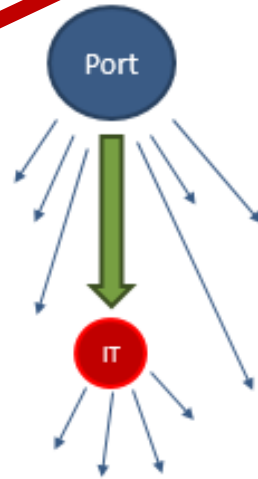
4th Generation

- Mega Ports
- Integration Maritime + Inland Ports
- Port: Logistic Provider
- High Frequency Multimodal Shuttle
- IT System (Documentation/Tracking)
- Modal Split: **Trucks <50%**



3rd Generation

- Dry Ports network
- Inland Logistics Zones
- Multimodal Shuttle
- Modal Split: **Trucks <80%**



2nd Generation

- Few Dry Ports
- Few Multimodal services
- Modal Split : Trucks > 80%



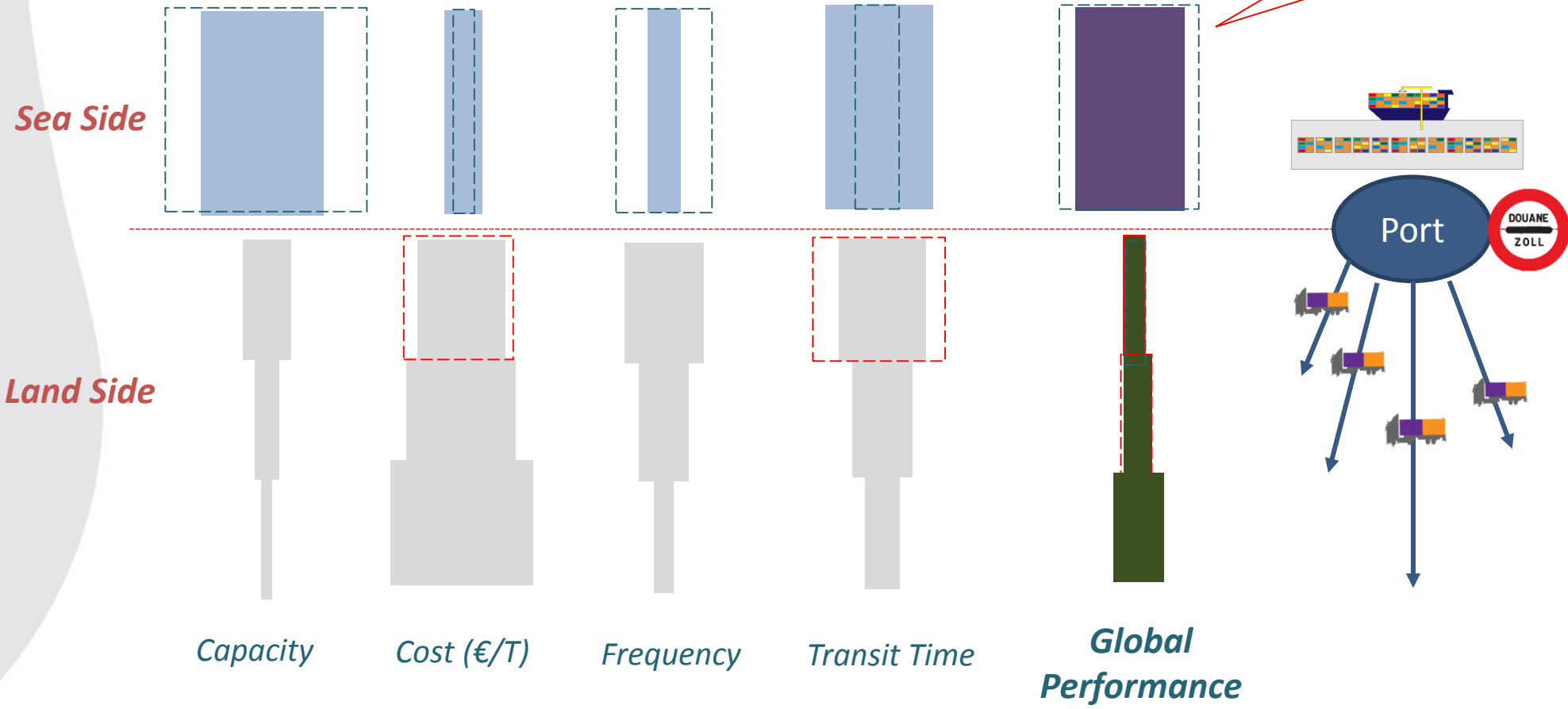
1st Generation

- No Multimodal
- 100% Trucks

Multimodal: Key Driver of the Port Performance

➤ Generation I : No Multimodal Services

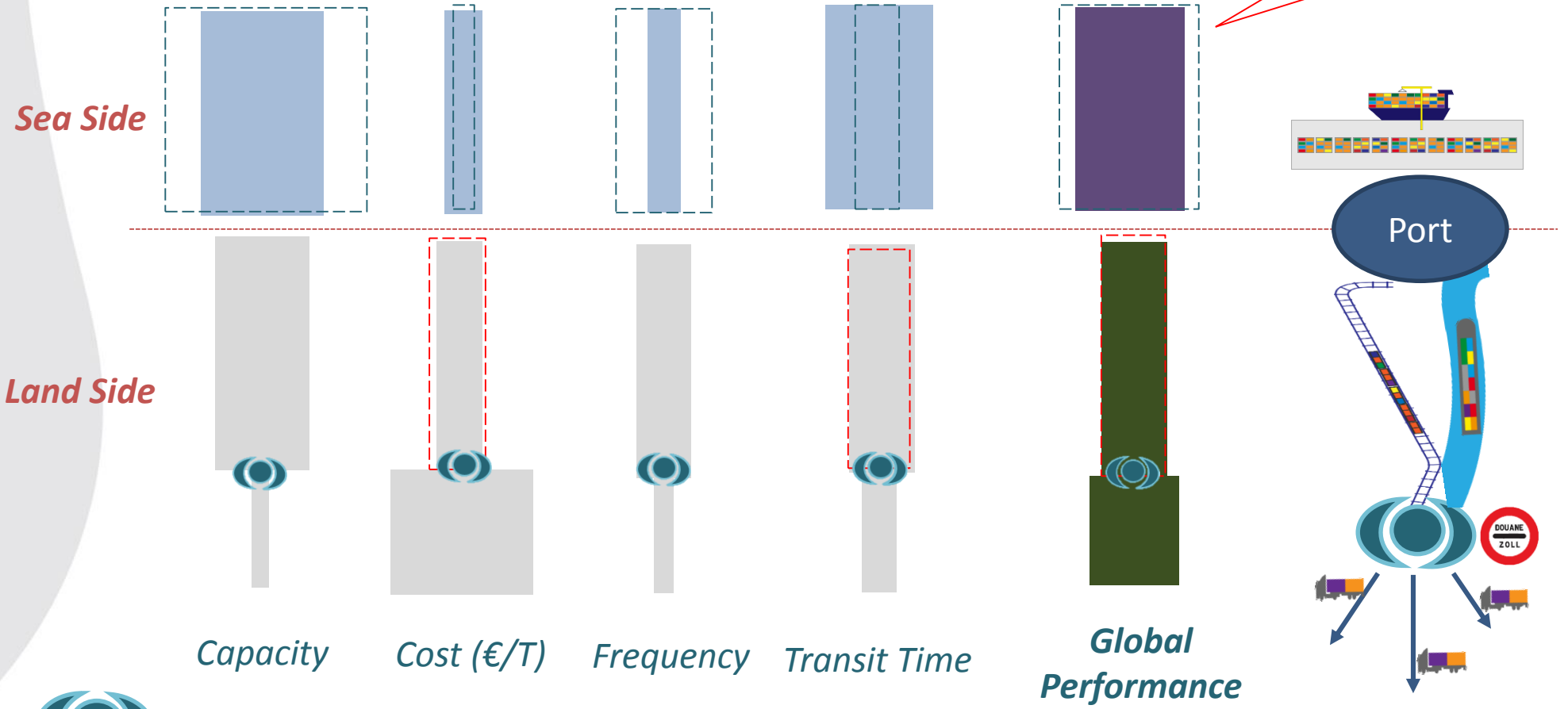
T/S put pressure
hinterland
Performance



Multimodal: Key Driver of the Port Performance

► Generation IV : Multimodal Services connected to Inland Logistics

Less Impact of T/S on hinterland Performance



Example : ECT in Rotterdam

- ▶ Deep Sea maritime Terminal Services (> 5 M Teus):
Performance of ECT depends on inland logistics services



Strategy

- ▶ *Development of maritime traffic By Multimodal/logistics services*
- ▶ *Terminal Operator = Multimodal Operator*

Agenda de la présentation

Multimodal impact on Port Performance

West Africa Case Study

Market Overview West Africa

What happened in Europe will happen in Africa

Strategy (West Africa)

- *Focus On Sea Side*
- *Develop Capacity for T/S*
- *Develop Capacity « Intra Muros »*
- *Weak investment on Inland side*
- *No diversification in port operators*

Consequences

- *99% land transport by trucks*
- *Congestion of Port Access (1-2 days for Truck Delivery)*
- *Poor Global Port Performances: Celerity, reliability*
- *High Logistic Costs (~3 times Europe base)*
- *Over capacity in Port on mid terms*
- *5 Players control ~80% of Port capacity (Bolloré, APMT, MSC, CMA CGM, DPW)*

Market Overview West Africa

5-year throughput of West African ports handling minimum 100,000 TEU:

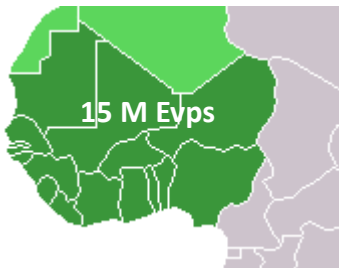
Port	Country	2017	2016	2015	2014	2013
North Atlantic						
Conakry	Guinea	<i>171,900</i>	166,000	168,000	150,000	147,300
Dakar	Senegal	<i>570,500</i>	540,000	529,700	456,000	454,100
Gulf of Guinea						
Cotonou	Benin	<i>333,000</i>	330,000	346,000	314,000	336,000
Douala	Cameroon	<i>386,400</i>	370,000	379,900	333,600	339,300
Libreville	Gabon	<i>156,000</i>	146,000	145,700	145,300	130,700
Tema	Ghana	<i>956,400</i>	893,800	782,500	732,400	842,000
Abidjan	Ivory Coast	<i>663,600</i>	635,600	640,900	655,000	649,900
San Pedro	Ivory Coast	<i>244,000</i>	250,100	286,500	336,800	333,300
Lagos	Nigeria	<i>1,050,000</i>	<i>1,150,000</i>	<i>1,294,200</i>	<i>1,600,000</i>	<i>1,480,000</i>
Onne/Port Harcourt	Nigeria	<i>160,000</i>	<i>170,000</i>	<i>250,000</i>	<i>267,400</i>	<i>216,000</i>
Lomé	Togo	<i>1,193,800</i>	<i>821,600</i>	<i>905,700</i>	<i>380,800</i>	<i>311,500</i>
South Atlantic						
Luanda	Angola	<i>570,200</i>	<i>541,300</i>	<i>753,300</i>	<i>1,055,200</i>	<i>913,000</i>
Pointe Noire	Congo, Rep	<i>579,000</i>	<i>562,900</i>	<i>571,900</i>	<i>619,900</i>	<i>574,200</i>

NOTE: Figures in *italics* are estimates.

Source: Dynamar

Key Figures

- ▶ ~7 000 000 Teus
- ▶ ~7% grow 2016/2017
- ▶ 2 Ports > 1 000 000 Teus (Lagos and Lomé)
- ▶ Capacity 2022: ~17 M Teus
- ▶ Potential 2030 > 15 M Teus*



* CTS estimation based on Population grows (3%/year) and containerisation: rate 1 Teu full for 45 inhabitants) + exports

Multimodal : Solution for Maritime Port Development

West Africa Market Outlook 2018

- ▶ 7 000 000 Teus (Full/Mty)
- ▶ Gateway traffic Booming (15-20M Teus 2030)
- ▶ Escalation of Vessel/Call Size
- ▶ Huge development of Port Infrastructure
- ▶ Focus on T/S development
- ▶ Weak Road condition
- ▶ Weak Railways Network
- ▶ Limited Inland investment
- ▶ Monopoly Profile

Results

Today

- Good Market potential
- State of the Art Port infrastructure
- Road port access Congestion
- Conflict City/Port interface
- T/S affect Gateway traffic services
- Poor Global Port Performances
- High Logistics Costs (3-5 x Europ Base)
- High Environmental Impact

Tomorrow*



Action Plan

- Focus on Hinterland / Gateway Traffic
- Develop Dry Ports + Logistics/ Industrial Ports Zones
- Develop Multimodal services

* Without hinterland structuration

Illustration

MSC 2017

- Hinterland countries transport costs are on average **45%** of the value of imported goods and **35%** of exported products
- That compares with world averages of **5.4%** and **8.8%** respectively
- These costs are mainly related to:
 - ✓ Administrative heaviness and cost
 - ✓ Obsolescence of roads
 - ✓ Cost Risk of theft
 - ✓ Accidents cost for Road
 - ✓ Risk of fraud
 - ✓ Insurance cost
 - ✓ A long transit time
 - ✓ Land logistics costs

« Can be Solved by Sound Multimodal Solutions »*



Conclusions

▶ **Multimodal services Development is a Key Driver :**

- To better serve hinterland and lock maritime port on its gateway market
- To Increase global Port performance (Transit Time, Reliability,..)
- To increase capacity of the terminal (reduce Dwell time)
- To reduce logistic costs
- To improve Port/City interface
- To reduce Environnemental impact

▶ **Development of T/S Traffic must be:**

- Assessed as strategic issue (What Interest for local economy?)
- Associated with Multimodal services development in order not to panalized Gateway traffic

« Port Performance is on the Land Side »



www.ctsconsulting.eu

p.reyne@ctsconsulting.eu

Nos prestations



Portuaire

Multimodal

Logistique

Accompagnement technique et opérationnel

- ▶ Audit et diagnostic
- ▶ Dimensionnement d'infrastructures et d'équipements
- ▶ Plans d'aménagement de terminaux et schémas directeurs
- ▶ Faisabilité technique et opérationnelle

Conseil en stratégie, analyse marketing et commerciale

- ▶ Stratégie : reconquête, repositionnement, développement, diversification
- ▶ Prospective marché : analyse filière, cartographie des flux et projections de trafic
- ▶ Analyse d'impacts socio-économiques
- ▶ Pré-commercialisation de plateformes multimodales et logistiques

Analyse et modélisation financière

- ▶ Audit et Due Diligence
- ▶ Modélisation financière opérateur et autorité portuaire
- ▶ Modélisation de services maritimes, fluviaux et ferroviaires
- ▶ Elaboration de politique tarifaire

Appui aux contrats PPP

- ▶ Accompagnement de processus d'appel d'offres pour les acteurs publics (landlord) et privés (candidats) : EOI, RFQ, RFP
- ▶ Elaboration et négociation de contrats PPP
- ▶ Stratégie d'offre et recherche de partenariats

Optimisation de la chaîne logistique

- ▶ Audit et diagnostic de schéma logistique
- ▶ Optimisation via les modes massifiés
- ▶ Simulation d'impacts économiques et opérationnels
- ▶ Appui au processus de contractualisation



Expertises :

- Etudes de faisabilité
- Master Plan portuaire
- Business Plan
- Analyses stratégiques, financières, marketing et techniques
- Structuration de PPP
- Audit et due diligence
- Pilotage de projets « Key Turn »
- Gestion Opérationnelle de terminaux portuaires
- Gestion de services maritimes et multimodaux

Formation :

- Ecole Nationale Supérieure des Techniques Avancées
- Master II en Mécanique des Fluides.

Années d'expérience :25

Pascal REYNE (1/3)

Pascal est fondateur et gérant de CTS créée fin 2005 après avoir évolué 10 ans au sein du plus grand armateur Français, la CMA-CGM, pour lequel il a créé puis dirigé la filiale Terminal Link, spécialisée dans la gestion et le développement de terminaux à conteneurs pour le compte du groupe.

Pascal dispose d'une expérience de 20 ans dans le shipping international et le développement portuaire, et cumule une expertise conseil et une expertise opérationnelle dans les métiers de l'exploitation portuaire ainsi qu'une expérience du développement de terminaux à conteneurs pour le compte d'acteurs privés et publics.

Pascal dirige ainsi les missions de conseil stratégique et technique pour la mise en œuvre de différents types de projets portuaires ou multimodaux (assistance à la mise en concession, assistance à la réponse à appel d'offres, audit, stratégie de développement, schéma portuaire, évaluation préalable/analyse de faisabilité : analyse économique, analyse des risques, revue des structures d'exploitation, analyse financière).

PRINCIPALES QUALIFICATIONS

- ▶ Expert sur l'industrie du transport conteneurisé : connaissance profonde des processus opérationnels, des acteurs et enjeux
- ▶ Expert dans le développement d'infrastructures et de services de transport multimodaux et maritimes
- ▶ Expert dans la mise en œuvre de contrat PPP portuaire (faisabilité, processus et contrats)
- ▶ Expert dans l'optimisation logistique de chaînes logistiques globales

Pascal Reyne a l'expérience du développement de plus de 40 terminaux maritimes dans le monde dont une vingtaine de projets de mise en concession de terminaux à conteneurs. Avec CTS consulting, il a élargi ses compétences sur l'hinterland routier et ferroviaire en liens avec les chargeurs.

Sur les 5 dernières années , on peut souligner les projets suivants :