INTERMODAL AFRICA 2019

DOUALA– 27th of November 2019

Port Performance versus Inland multi-modal services

CTS Consulting,

conseil en logistique portuaire et multimodale

CTS

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

We Advice

PorTeA

Assets management
« Small and Mid Cap »

We Invest

CTS
We carry your Projects

Advisory services
Since 2005

We Operate

Société Manutention Portuaire Aquitaine

Terminal Operator in 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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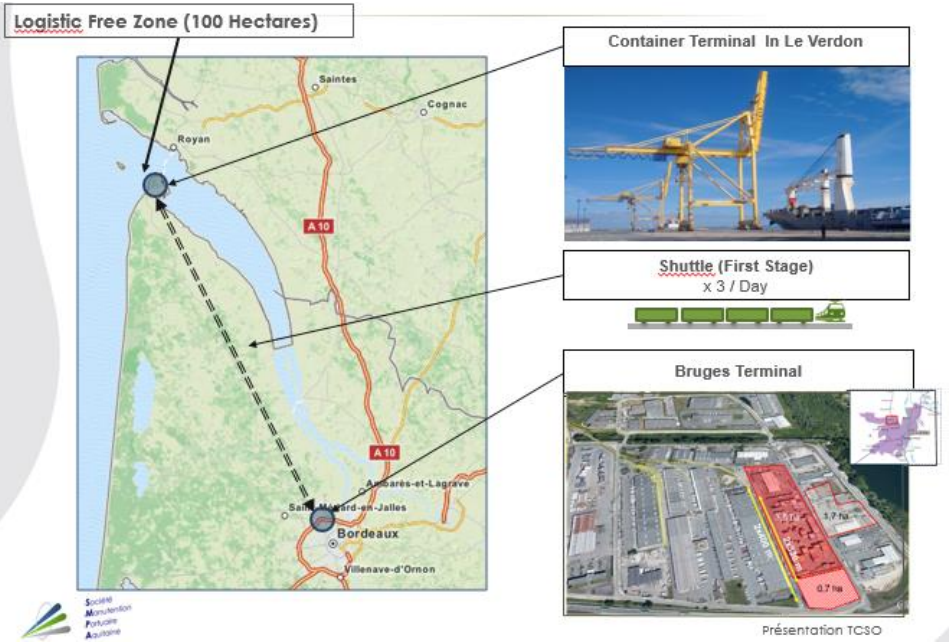
CTS
We carry your Projects

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	✓	✓	

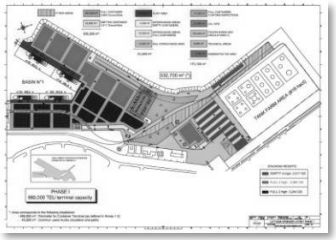
Deep Sea Terminal



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

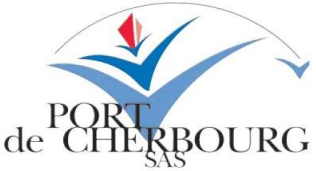
PPP contract assistance

- 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

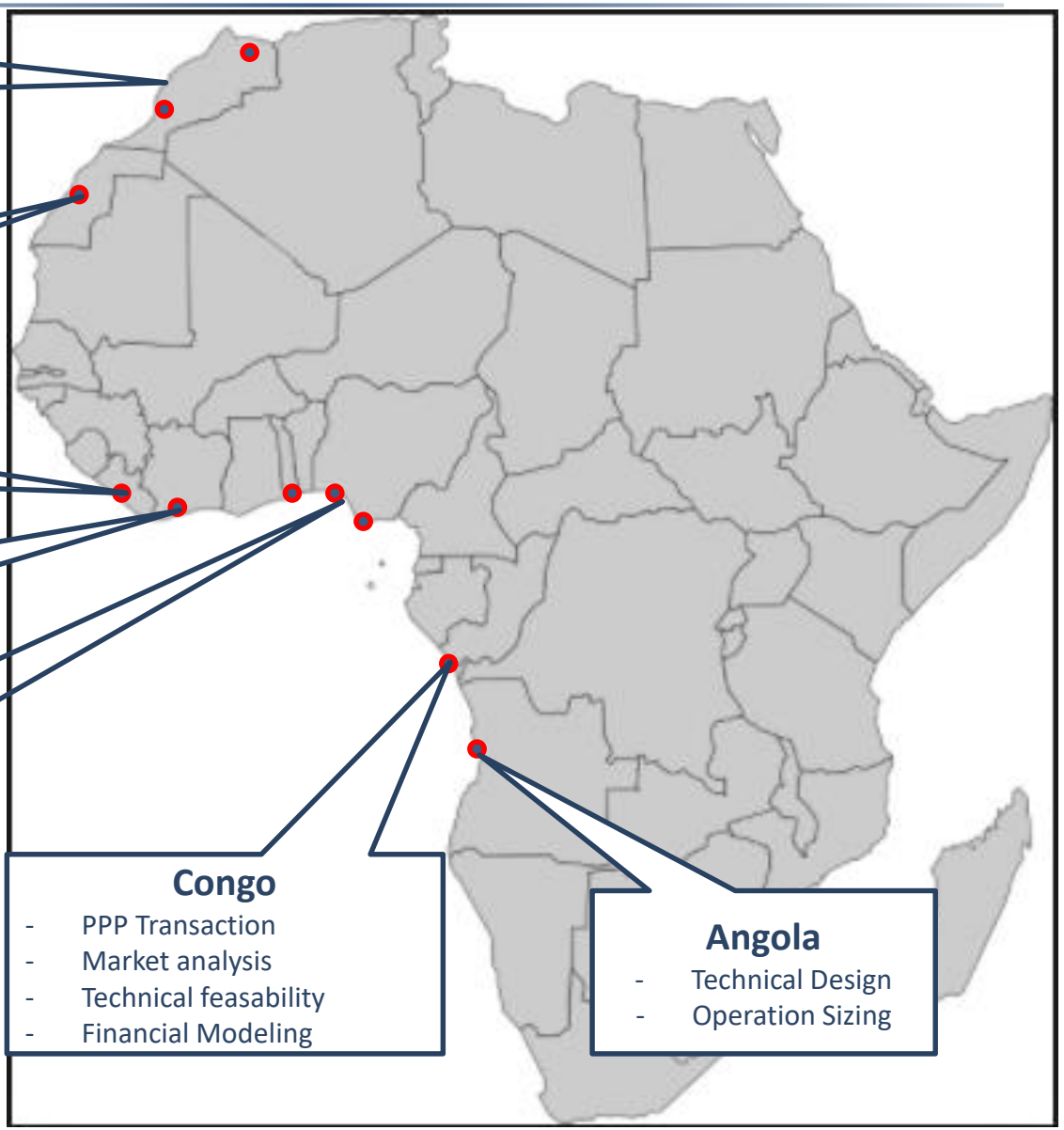
They Trust Us

Secteur public



Secteur privé

CTS Reference in Africa



Morocco
- Tangier: Studies and Concession Contract Nego
- Caasanblaca: Market and Strategic Studies

Mauritania
- Market Study

Liberia
- PPP contract Structuring

Ivory Coast
- Market Analysis
- Traffic forecast
- Dry Port Development

Nigeria
- Market/Strategic Analysis Port@Lekki
- Structuring 6 hinteland
- Dry Port

Congo
- PPP Transaction
- Market analysis
- Technical feasability
- Financial Modeling

Angola
- Technical Design
- Operation Sizing

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

Truck

Multimodal

Logistic Port Zone

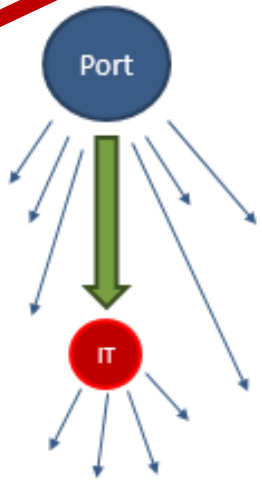
Dry Port

IT

Global Port Performance

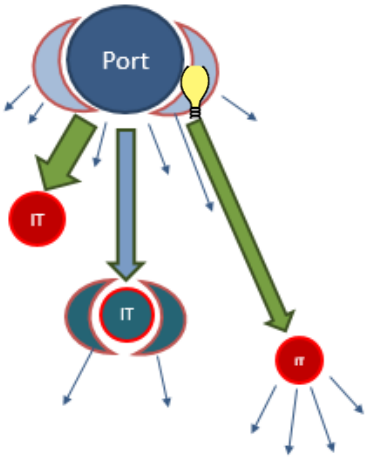
1st Generation

- No Multimodal
- 100% Trucks



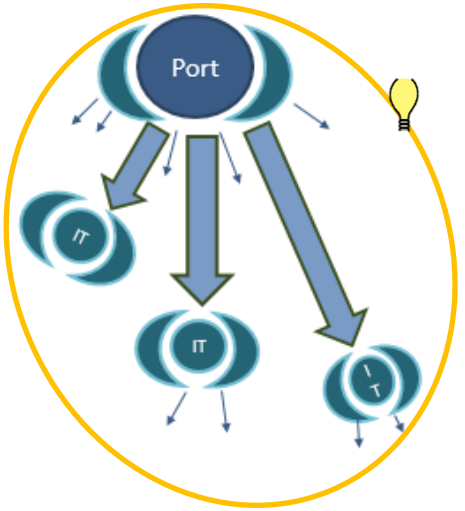
2nd Generation

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



3rd Generation

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

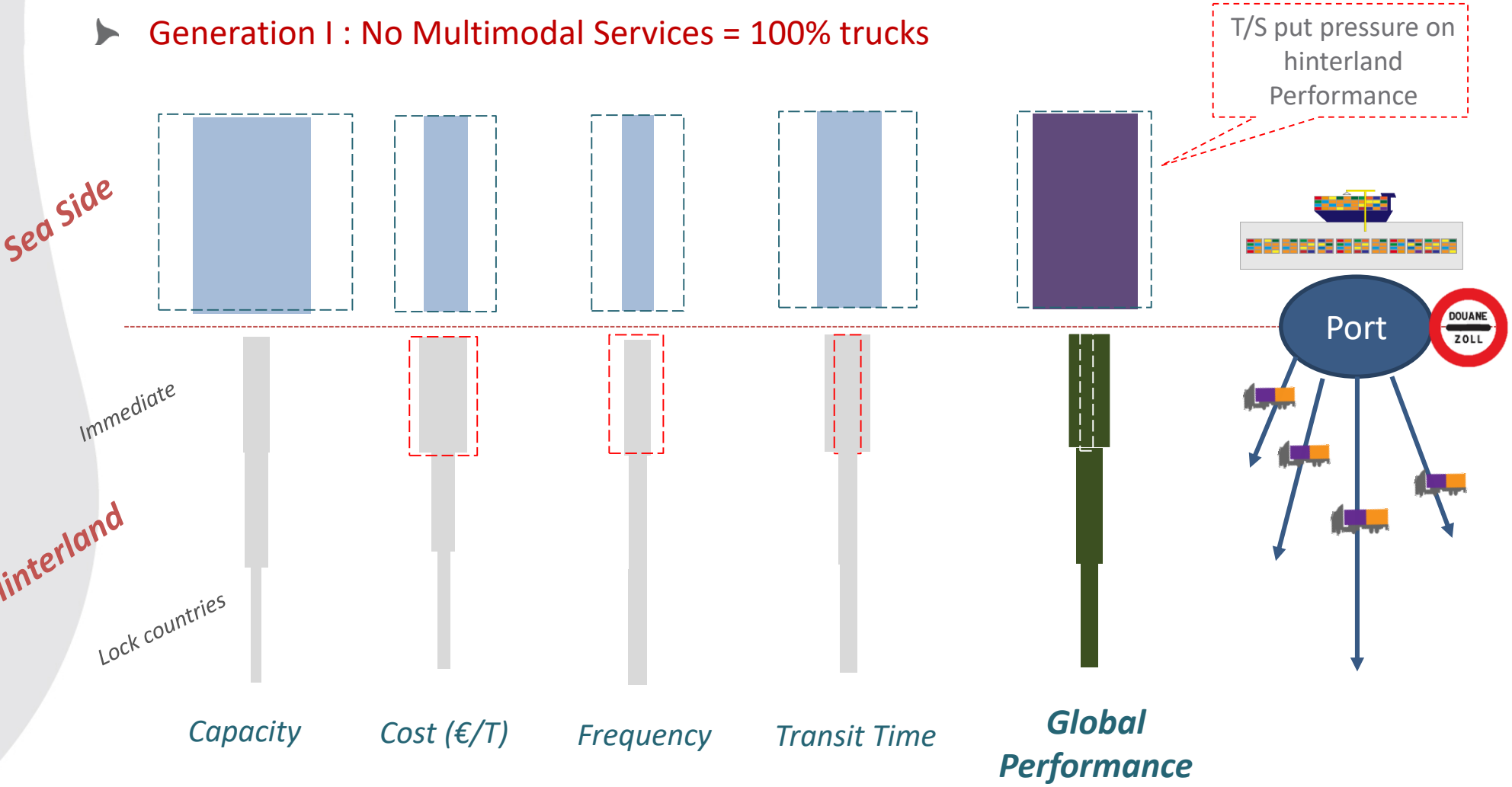


4th Generation

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

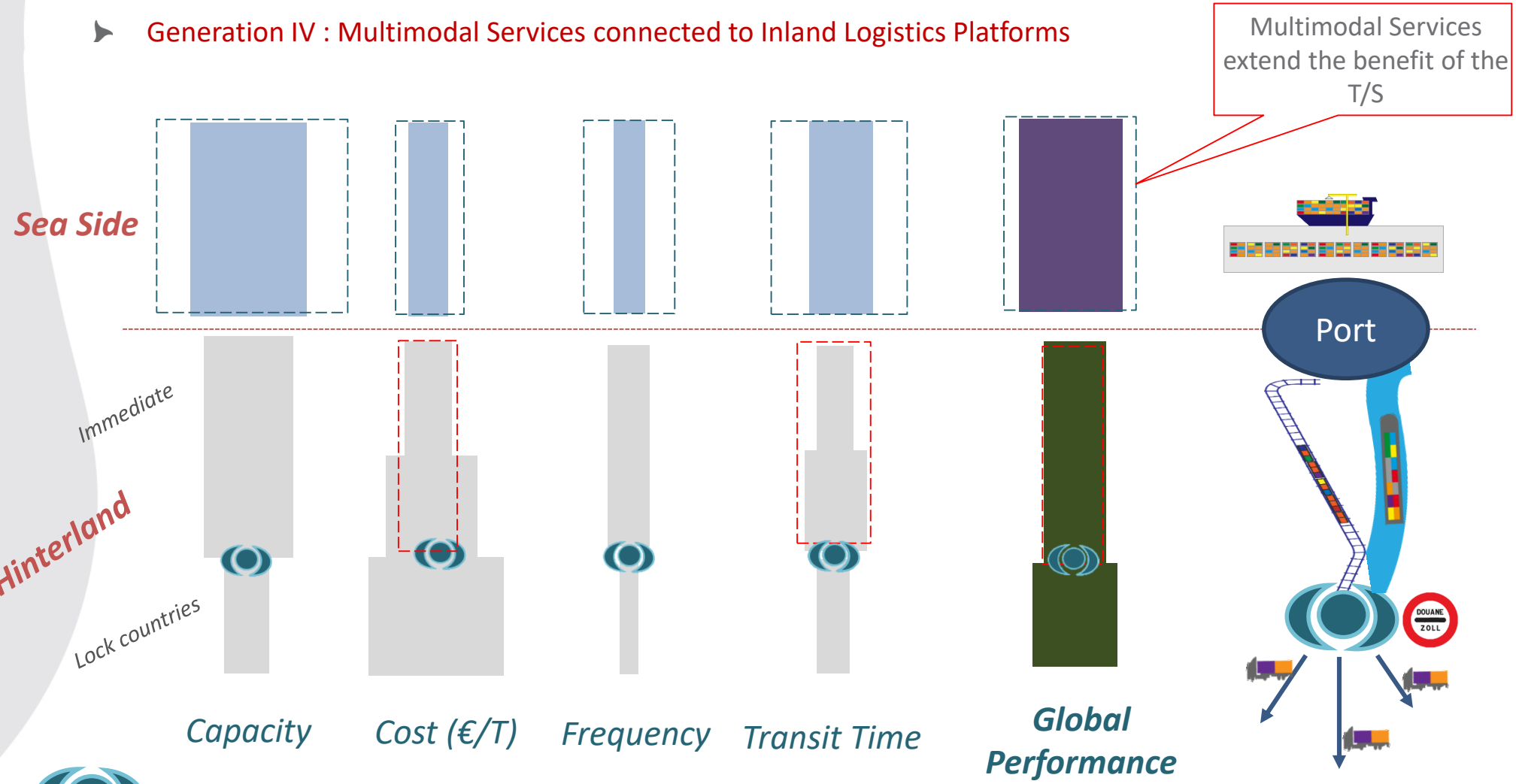
Multimodal: Key Driver of the Port Performance

- Generation I : No Multimodal Services = 100% trucks



Multimodal: Key Driver of the Port Performance

- Generation IV : Multimodal Services connected to Inland Logistics Platforms



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 »

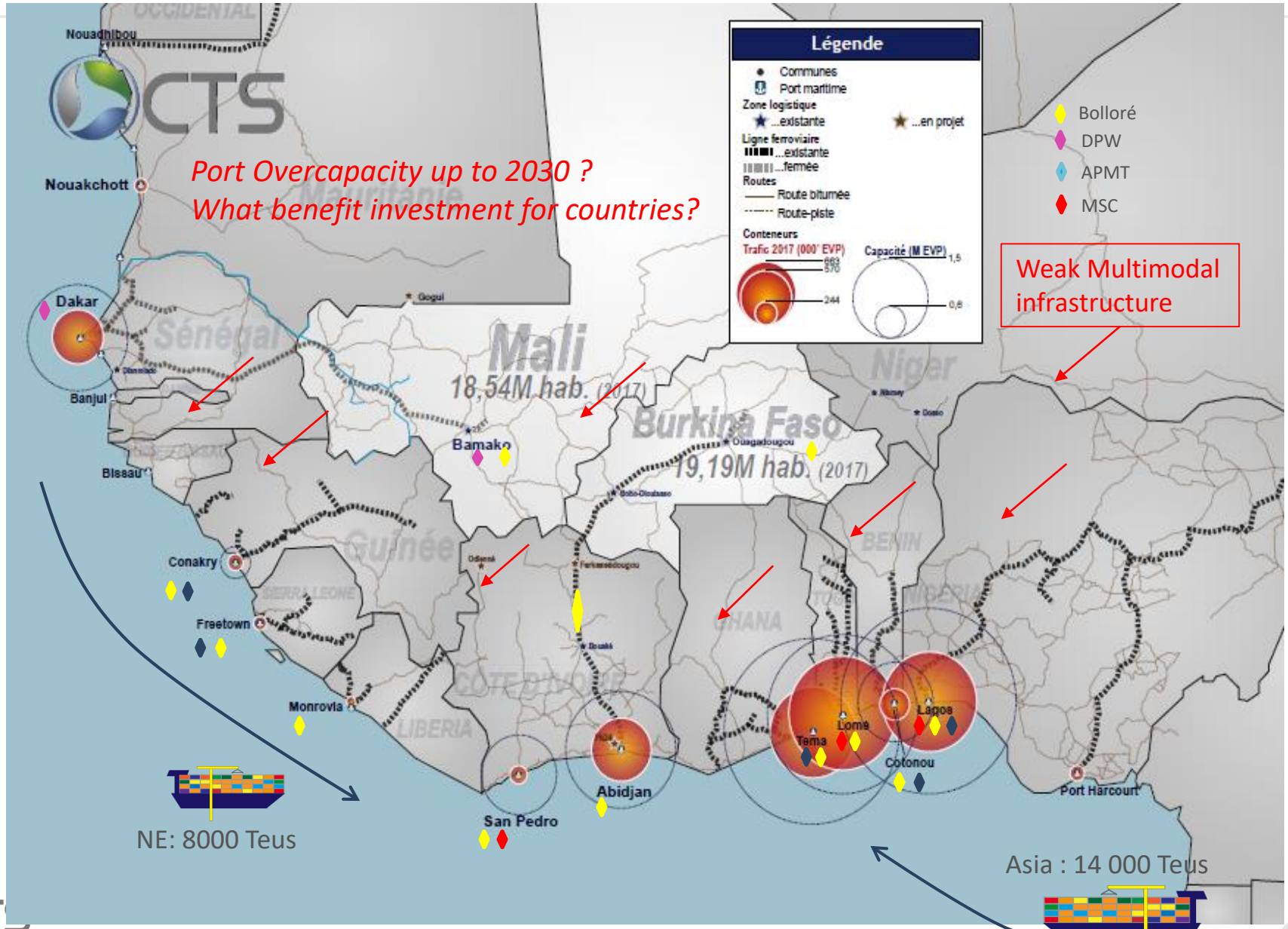
Strategy (West Africa)

- *Investments Focus On Sea Side*
- *Develop Capacity for T/S*
- *Develop Port 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



Market Overview West Africa

Figures

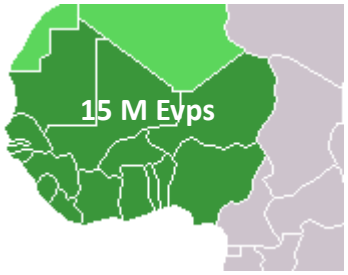
~7 000 000 Teus

~ 7% grow 2016/2017

2 Ports > 1 000 000 Teus (Lagos and Lomé)

Capacity 2022: ~17 M Teus

Potential 2030 > 15 M Teus*



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

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

NOTE: Figures in *italics* are estimates.

Source: Dynamar

* CTS estimation based on Population grows vs containerisation+ exports

Multimodal : Solution for Country Development

West Africa Market Outlook 2018

- 7 000 000 Teus (Full/Mty)
- Gateway trafic 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	*Tomorrow**
○ Good Market potential	
○ State of the Art Port infrastructure	
○ Road port acess 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	

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

CTS: « Solutions: Sound Multimodal Solutions »*

* CTS analysis

Conclusions

- ***Hinterland Services is a Key Driver of Global Port Performances*** *(Country development)* **:**
  - 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
- ***T/S Traffic may affect port performance on Gateway trafic:***
  - Performance on Gateway traffic is the priority for **Africa global development**
  - Multimodal services development is strategic for Africa

« Port Performance is on the Land Side »

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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

CV

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 :