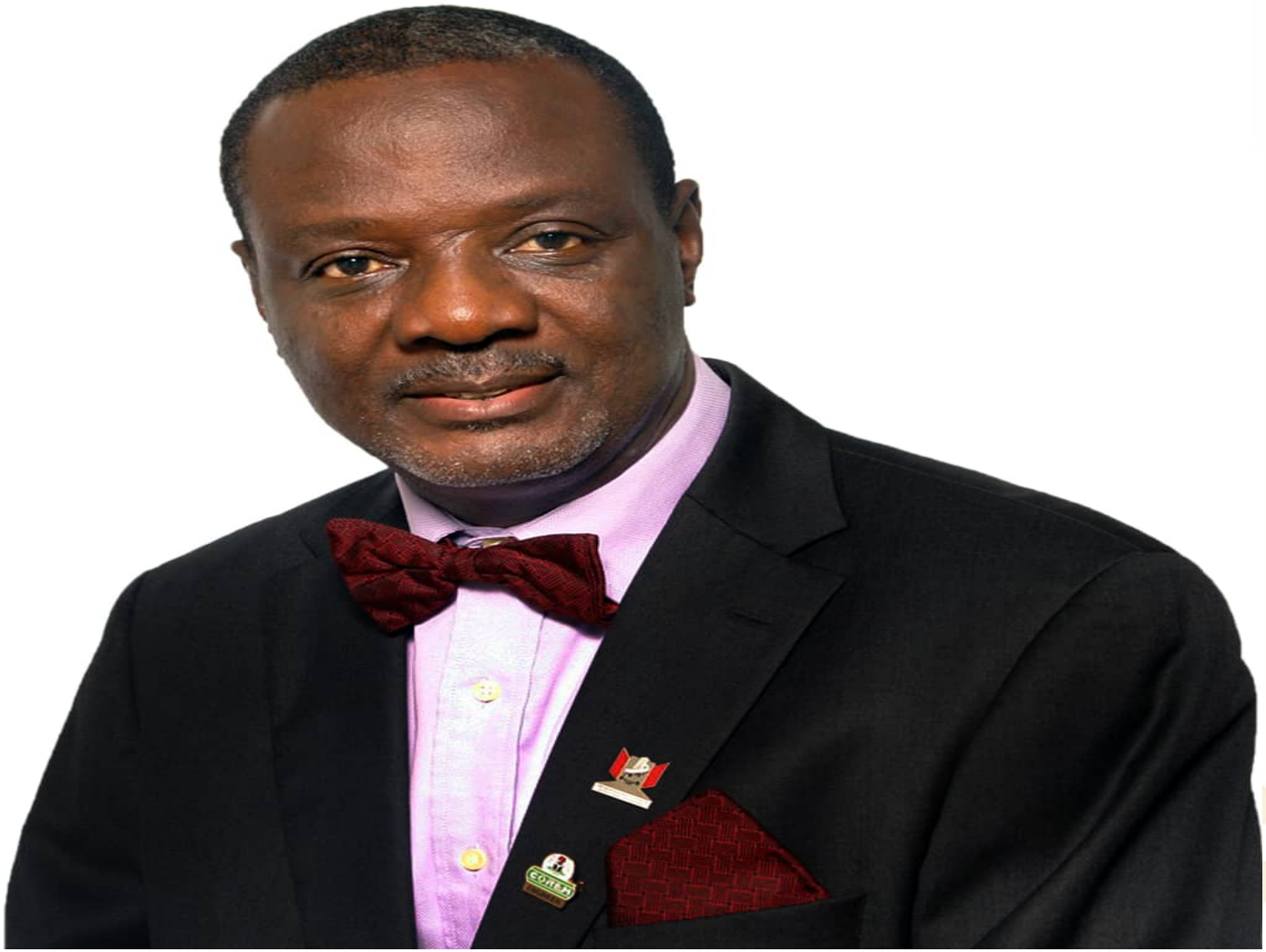
Opportunities & Challenges for Professionals in Concessions

PRESENTATION BY THE ICRC AT THE NIGERIAN INSTITUTE OF STRUCTURAL ENGINEERS (NIStructE)
PRESIDENTIAL INVESTITURE ON 22TH FEB 2018

Engr. Chidi Izuwa Snr
Ag. DIRECTOR GENERAL/CEO
INFRASTRUCTURE CONCESSION REGULATORY COMMISSION

Congratulations Sir!!!!



Who is a Structural Engineer ???

Structural Engineers analyze, design, plan, and research structural components and structural systems to achieve design goals and ensure the safety and comfort of users or occupants. The work of structural engineers takes account mainly of safety, technical, economic and environmental concerns, but may also consider aesthetic and social factors

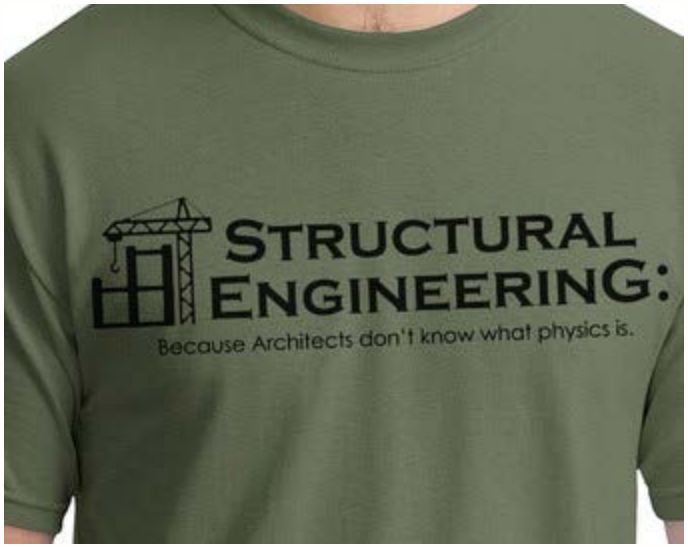
Beams and Trusses; Free body diagrams

Displacement and Deflections and Deformation

Types of Loads; Euler Bernoulli Beam Equation

Euler Buckling formula; Elastic Modulus; Stiffness Matrix

Who Is A Structural Engineer ~ Euler Bernoulli



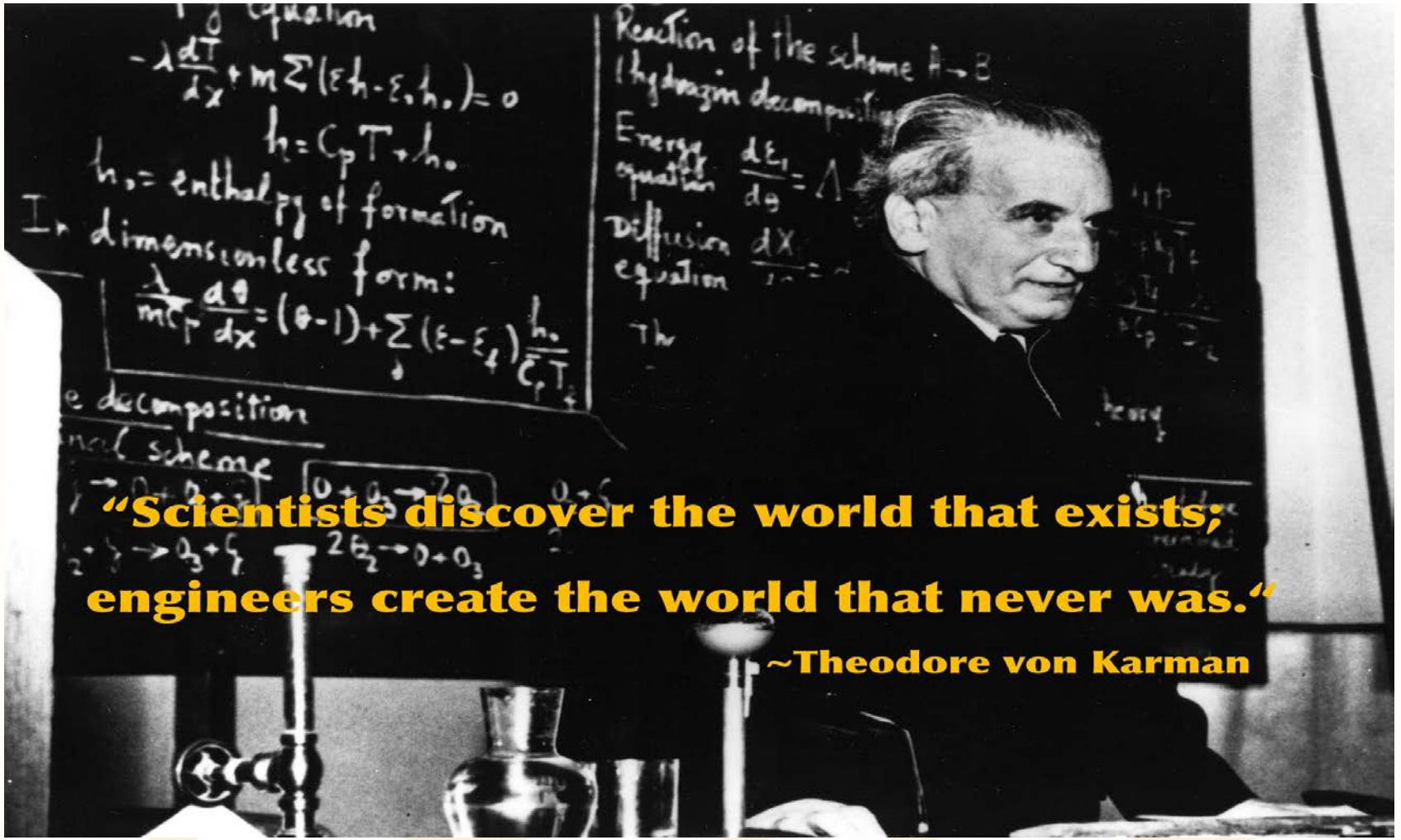
I do not want to drive across a bridge designed by an engineer who believed the numbers in structural stress models are relative truths.

R. C. Sproul

PICTUREQUOTES.com

Two Famous Structural Engineers???

Testimonial



Infrastructure Possibilities

AMERICA HAS GOOD ROADS, NOT BECAUSE AMERICA IS RICH, BUT AMERICA IS RICH BECAUSE IT HAS GOOD ROADS - John F Kennedy Former US President.

The implication of this quote from the 60s is an eternal economic truism. No country can become economically buoyant without good infrastructure especially a good road network.

http://blogs.worldbank.org/ppps/infrastructure-africa-s-development-ppp-imperative

Presentation Outline

- Infrastructure and Development
- Vision for Nigeria and Procurement Spectrum
- Defining PPPs and Infrastructure Investment Gap
- Myth Bursting and Types of PPPs
- PPP Experience Nigeria and Legal Framework
- PPP Experiences from Others and PPP Procurement Routes
- Opportunities and Challenges for Professionals
- PPP Project Opportunities in Nigeria
- Conclusions

Infrastructure and Development

Infrastructure is a Guarantee to Economic Development

- **Infrastructure contains railway, highway, harbor, aviation, communication, information and internet service, power and water supply, drainage and refuse treatment, etc**

- **Poor economy would cause poor infrastructure, while poor infrastructure would restrict the development of economy in return. There's a close interrelationship between the two aspects.**

- **Infrastructure delivery should surpass present conditions.**

To be rich, make a good road first

- Transportation is the most essential infrastructure. All the circulation of goods, people and other economic forms cannot go without transportion.
- Railway is the backbone of long distance transportation. There must be some main arterial railways among the big cities, ports, industrial zones and mining areas. Double lines and rapid transit railways are required in the busy districts.
- Road transit is most used in the land transportation, mainly for short distance use. Ordinary road network, rural area road network are required. And the main road needs to be the super highway.

Electricity is the Source of Power for Dev. & Industrialization

- Electricity is the base of Modernization
- The establishment of Power Station must be more advanced than the present economic situation properly.
- Power Station includes hydroelectric power station, heat-engine plant, fuel gas generating station, nuclear power plant, wind power generation, solar energy generation, etc. Choose to get the proper power source according to the local conditions.
- A good power supply network must be established.

Ports and Aviation are the doors to the outside world

- Maritime is the cheapest way of transport. It's necessary to develop the ports and marine shipping.
- Huge tonnage and specialized deepwater ports and harbors are required.
- A comprehensive aviation system with main airport and lateral airports is needed in international and domestic long distance contacts.

Information System is Required for Development

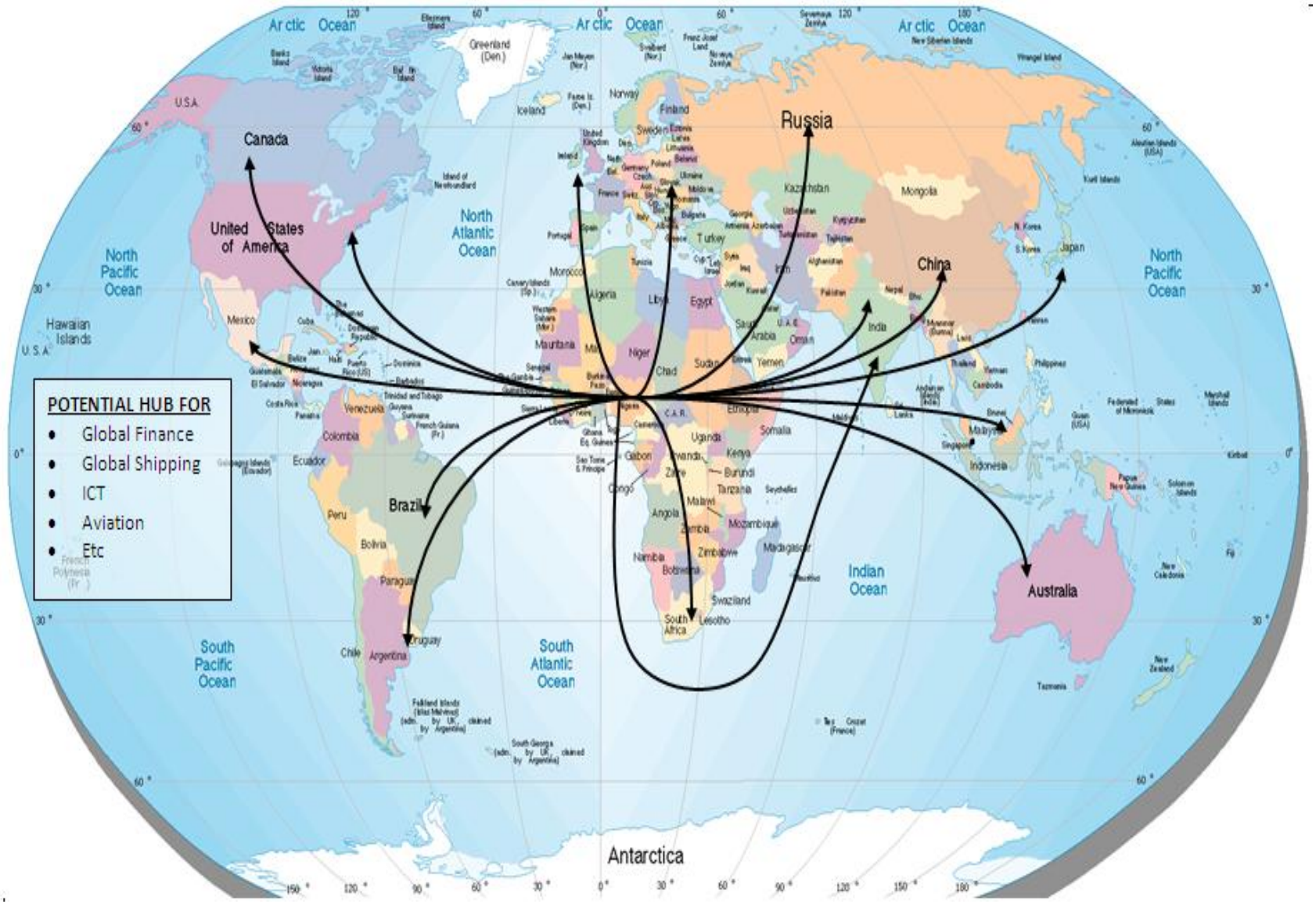
- Telecom（including the cable telephone, fax, and mobile phone）is basic for communication.
- In the information society, internet is an indispensable infrastructure. We should construct optical fiber networks.
- The new economy driven by the internet network in the developed countries sets a good example for developing countries.

Water Supply, Drainage & the Treatment of Polluted Water and Waste Disposal

- Economic development, industry, agriculture and everyday life cannot go without water
- Drainage is mainly for preventing flood, while in the city and factories, rain and sewage need to be separated.
- Sewage disposal is an important measure for environment protection, including the sewage pipe network, sewage treatment works and its utilization.
- Trash should be categorized, treated and disposed properly

Vision for Nigeria

Introducing...Nigeria centre of the world



Africa's Most Formidable CV – Past and Present

- Largest Economy in Africa, 26th Largest Economy in the World, Half a Trillion GDP
- First TV Broadcast in Africa
- Mandela hid in Nigeria for 6 months to escape the Apartheid Regime
- Previous longest Bridge in Africa (11.8 Kms) – Egypt now
- Largest Black Country in the World – 170 Million (1/5th of Africa's Population)
- Largest Entrepreneurial Population in Africa, Large Mobile Phone User Base
- Third Largest Movie Industry in the World – Now 2nd
- Diversifying Economy With Growing Non Oil Sector – 51% Services, Agric 22%, Industry 26%, Oil 15%
- Richest Man in Africa – Aliko Dangote
- Leading Destination for Investment in Africa – UNCTAD
- IF YOU ARE NOT IN NIGERIA, YOU ARE NOT IN AFRICA

Nigeria of Our Dreams

Roads

Interchanges

Traffic Surveillance and Control Centers

Modern Infrastructure Bundle

Pipelines: water supply, telecommunication, electricity, gas, sewage, storm-water

World Class High Speed Rail

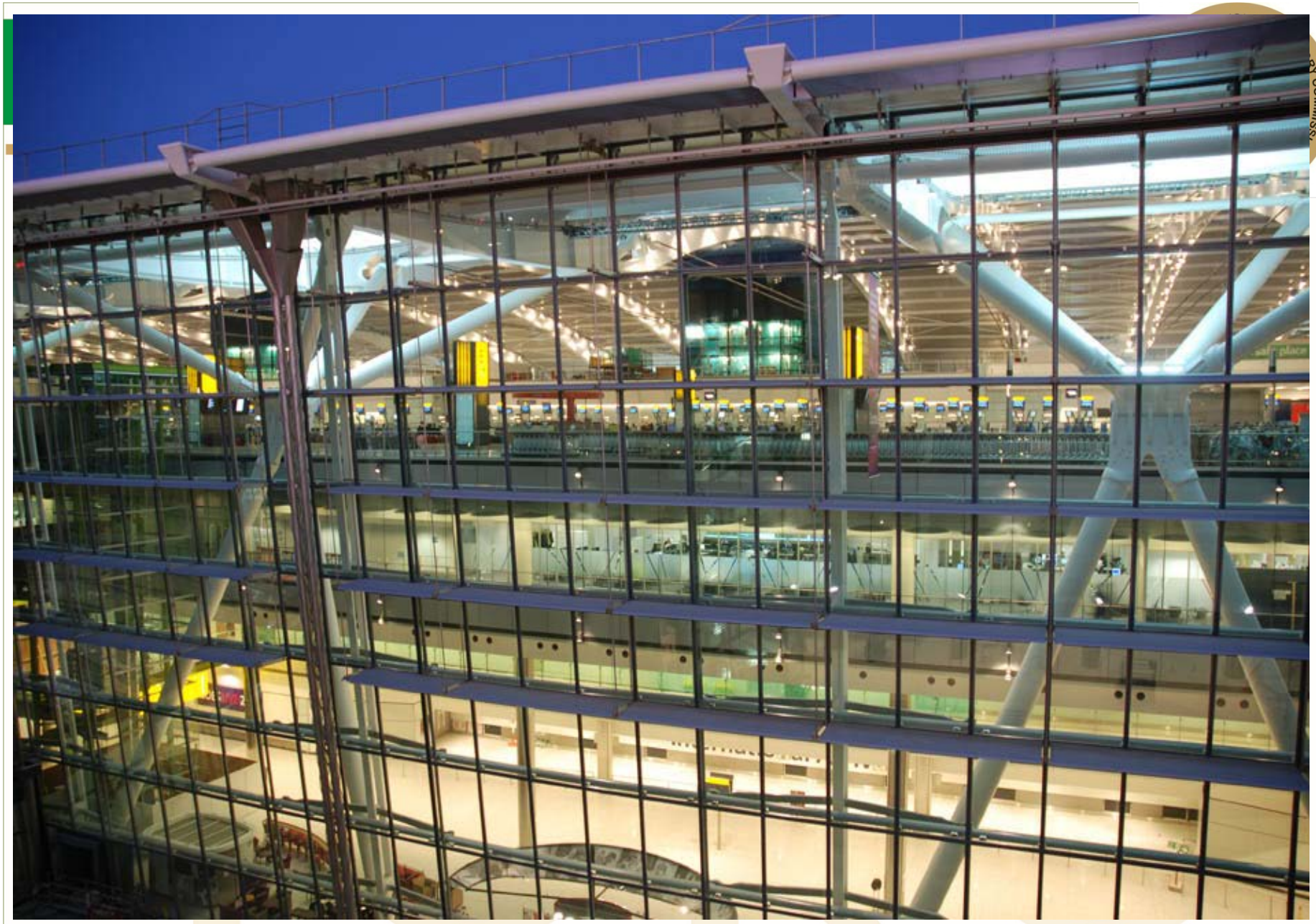
Doraleh Multi-Purpose Port PHASE I+II

- **Total Investment: 580 Million USD**

Operational: 1st Quarter 2017

➢ **Employment:**

- **Construction phase: 300**
- **Operation phase: 800**



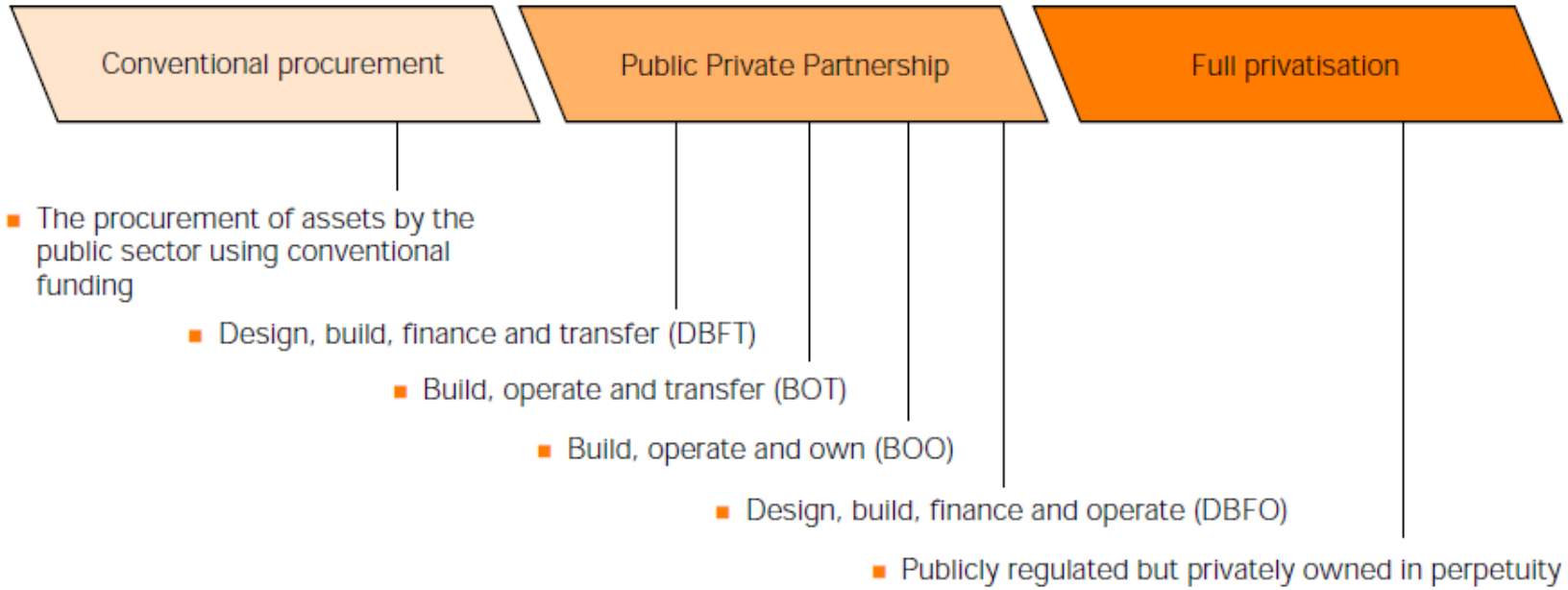

LARNAKA INTERNATIONAL AIRPORT


ПУЛКОВО

Procurement Spectrum

Public Procurement Spectrum

PPP represents a balance between state ownership and privatisation as indicated below:



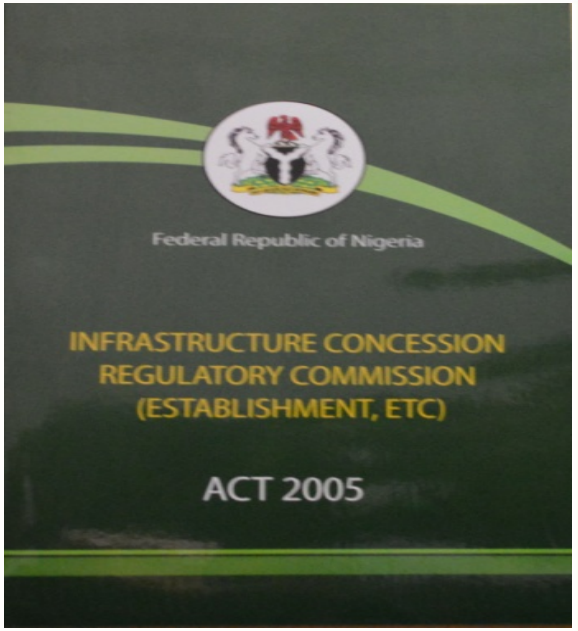
Source: KPMG, KLegal

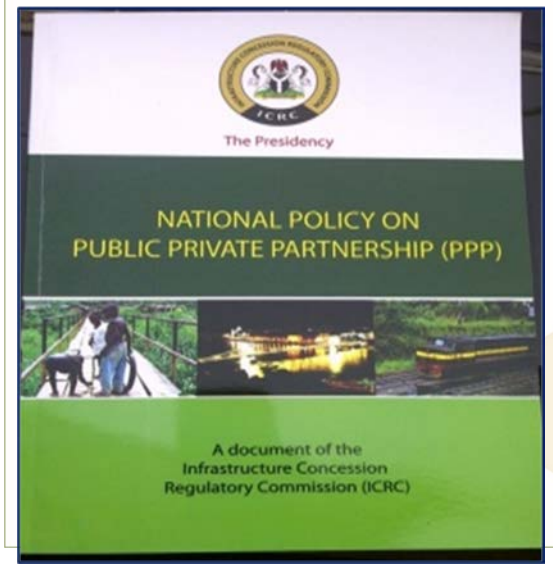
Procurement Agencies

Brief on ICRC

What ICRC Does…

- Pre Contract Regulation by:
  - Verify Bankability of PPP Projects
  - Policy, Guidelines, Regulations, and Capacity Building
- Post Contract Regulation by:
  - Monitoring projects and ensuring compliance with contracts





What others Do…

- **Project Initiation** – Govt Agency responsibility
- **Determine Output Requirements** – Govt Agency responsibility
- **Contracting Authority** – Govt Agency responsibility
- **Approve Projects** – Cabinet responsibility

Defining PPPs

Definition of PPP

A Public-Private Partnership is a contractual agreement between a public agency (federal, state or local) and a private sector entity. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility (Nat. Council on PPP USA)

- Wide Infrastructure Gap
- Growing demand for private sector participation in infrastructure
- Small and depleting Government resources
- **Urgent need for alternative funding of Infrastructure**

The goal is to combine the best capabilities of the public and private sectors for mutual benefit

PPPs are Fundamentally Different

Formal contract between public and private partner (over the years duration the service will be provided) – usually multiple years duration
Entered through **competitive procurement**
Using **output specification** – government specifies 'what', private sector can define 'how'
With suitable **risk allocation** between parties
Putting **private investment at risk**
With **regulation or contract management of performance** of the private partner

Example

Government defines output = connection to let 1,000 vehicles p.d. travel between islands
Government tenders for best solution over 30 years – e.g. ferry, tunnel, bridge??
Government enters 30-year contract with private company
Private company designs, builds, finances bridge, then operates and maintains it for 30-years
Private company receives payment if the bridge works and is available for traffic
Government checks on safety and availability
If the bridge is closed, or unsafe, the private company looses money

7 Essential Conditions That Define Public Private Partnerships

Source: IDFC

What is & What it is not PPP?

1. **PPP is not privatisation or disinvestment**

2. **PPP is not about borrowing money from the private sector**

3. **PPP is more about creating a structure**

... in which greater value for money is achieved for services

... through private sector innovation and management skills

... delivering significant improvement in service efficiency levels

4. **This means that the public sector**

... no longer builds roads, it purchases kilometres of maintained highway

... no longer builds prisons, it buys custodial services

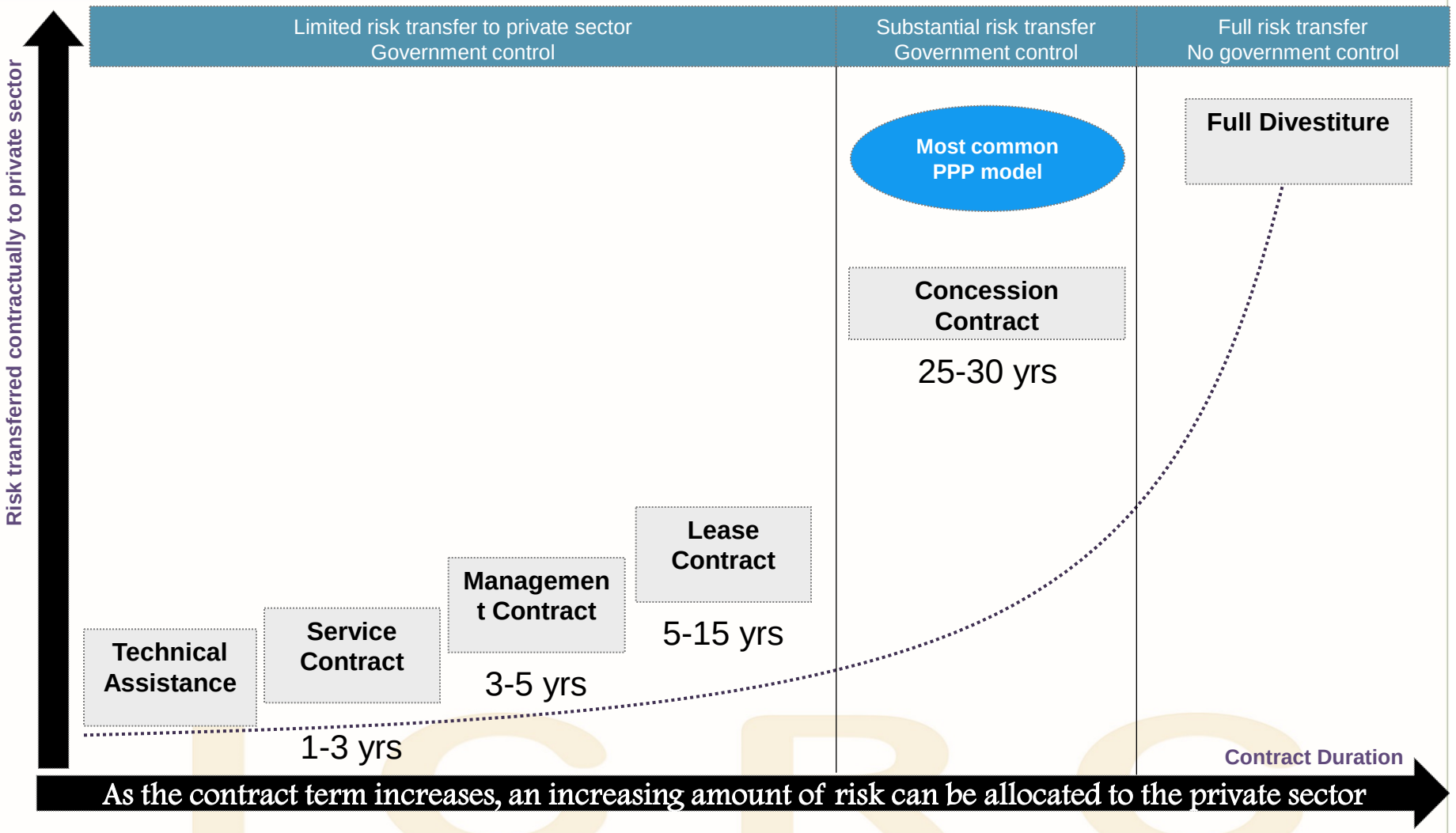
... no longer operates ports but provides port services through world class operators

... No longer builds power plants but purchases power

PPP or Concessions??

- **All Concessions** are PPPs But **NOT all PPPs** are Concessions
- **Concession** is one of many variants of the PPP Model

Options for Private sector participation



Source: IFC World Bank
Webinar – 6 October 2015

Key PPP Principles (N4P)

- **Value for Money**
  Cost, risks and service quality
- **Public interest**
  Adequate consultation with end-users and other stakeholders
- **Output requirements**
  Clear and verifiable service standards for output specifications.
- **Transparency**
  Transparency and probity can reduce concerns over corruption.
- **Risk allocation**
  Risks allocated to the party best able to manage them.
- **Competition**
  Ensuring and enforcing adequate competition procedures & laws.
- **Capacity to deliver**
  Partners must have adequate capacity to deliver and manage the EPC & commercial processes

Infrastructure Investment Gap

The Infrastructure Investment Gap

- Required investment is beyond Public sector Resources
- Catalysing Private Sector financing is Inevitable
- Concessions (and other forms of PPP) are unavoidable

Infrastructure needs & gaps

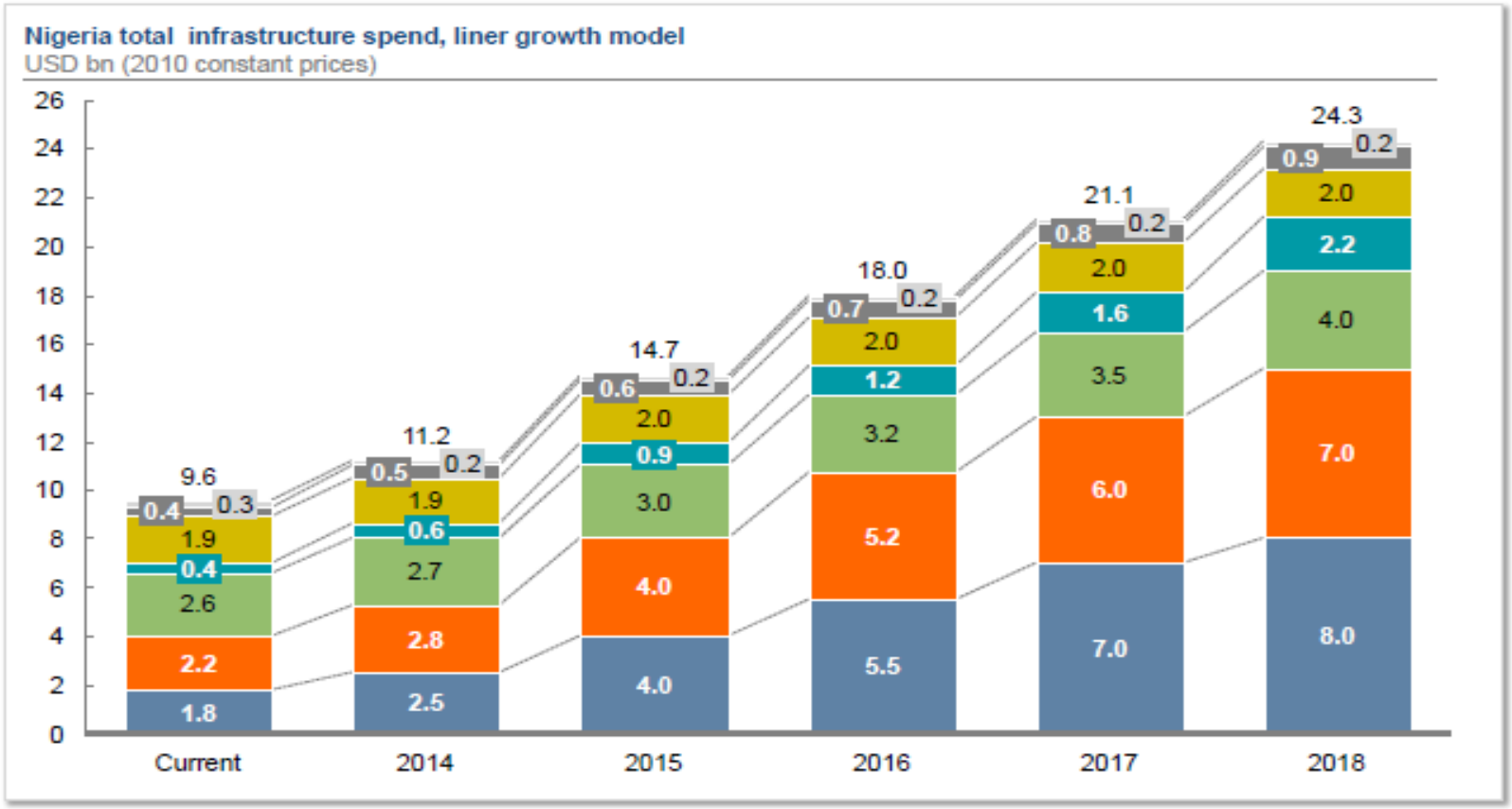
Based on our 30-year NIIMP:

- Nigeria requires an expenditure of **US$ 3.10 trillion over 30 years**.
- The sectors covered are energy, transport, agriculture & water resources, social infrastructure and security.
- **48%** of planned investment of US$ 3.10 trillion is expected from the private sector by way of PPP arrangements
- The expenditure requirement for the first five years of the plan comprises Energy (US$13bn), Transport (US$11bn), Agric. (US$3.2bn) and ICT (US$3.7bn). Others are Housing (US$1.4bn), Social Information (US$2.1bn) and Vital Registration & Security (US$ 0.6bn).

Source: NPC

Future Infrastructure Projects

Ramp up spend in transport and energy over the first 5 years

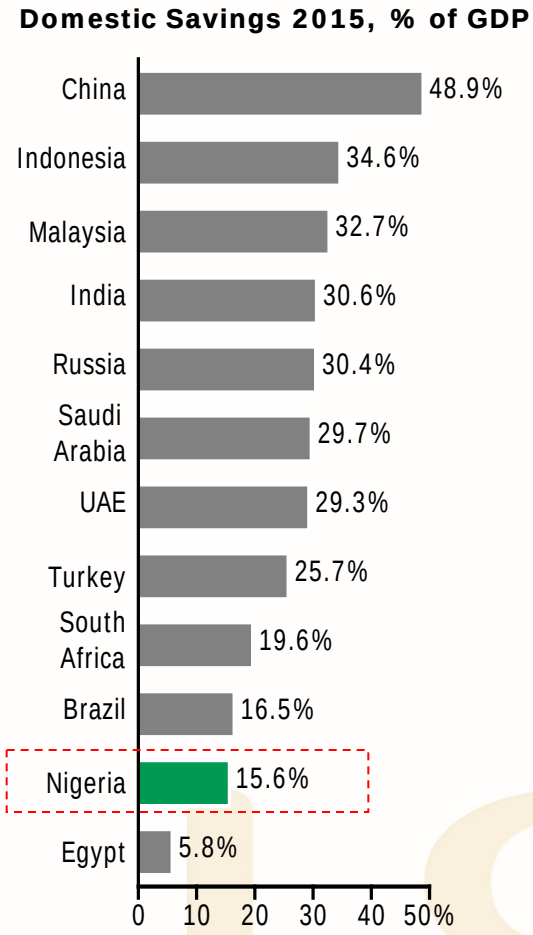


SOURCE: NIP, AFDB

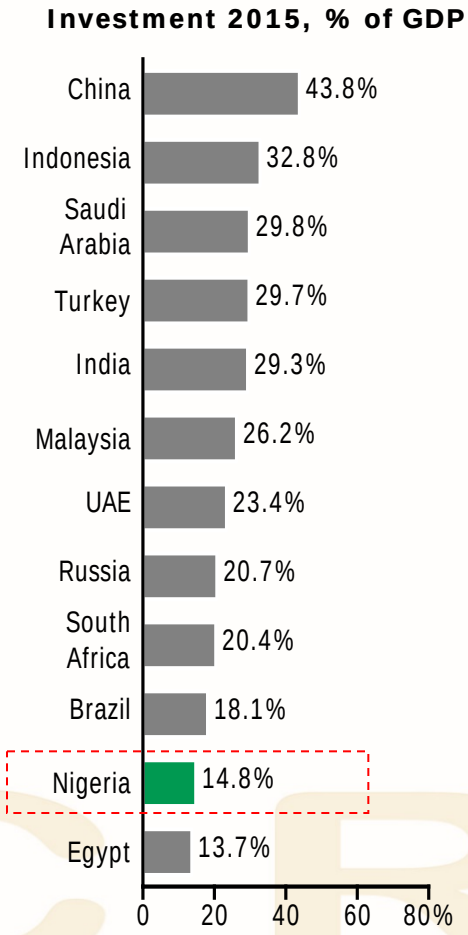
Myth Bursting

Domestic financial depth: Nigeria fairs poorly on domestic savings, investments and government spending vs peers

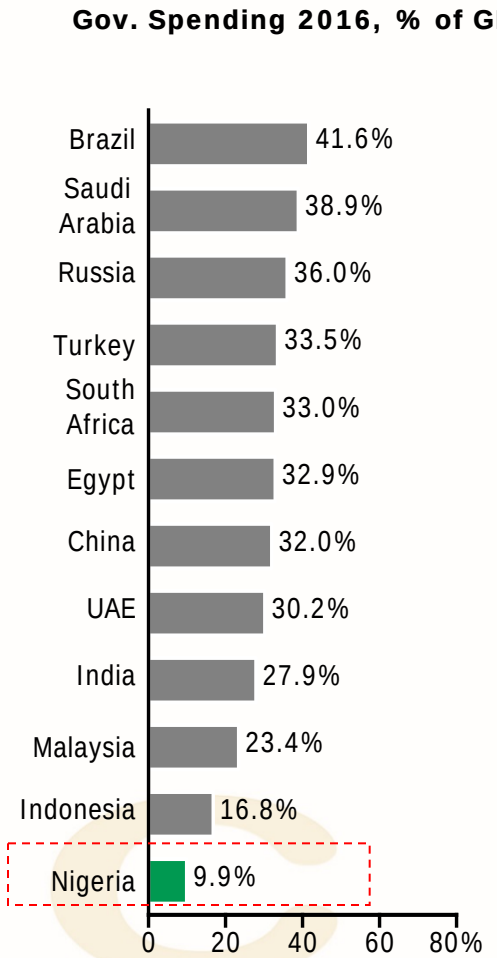
Domestic Savings



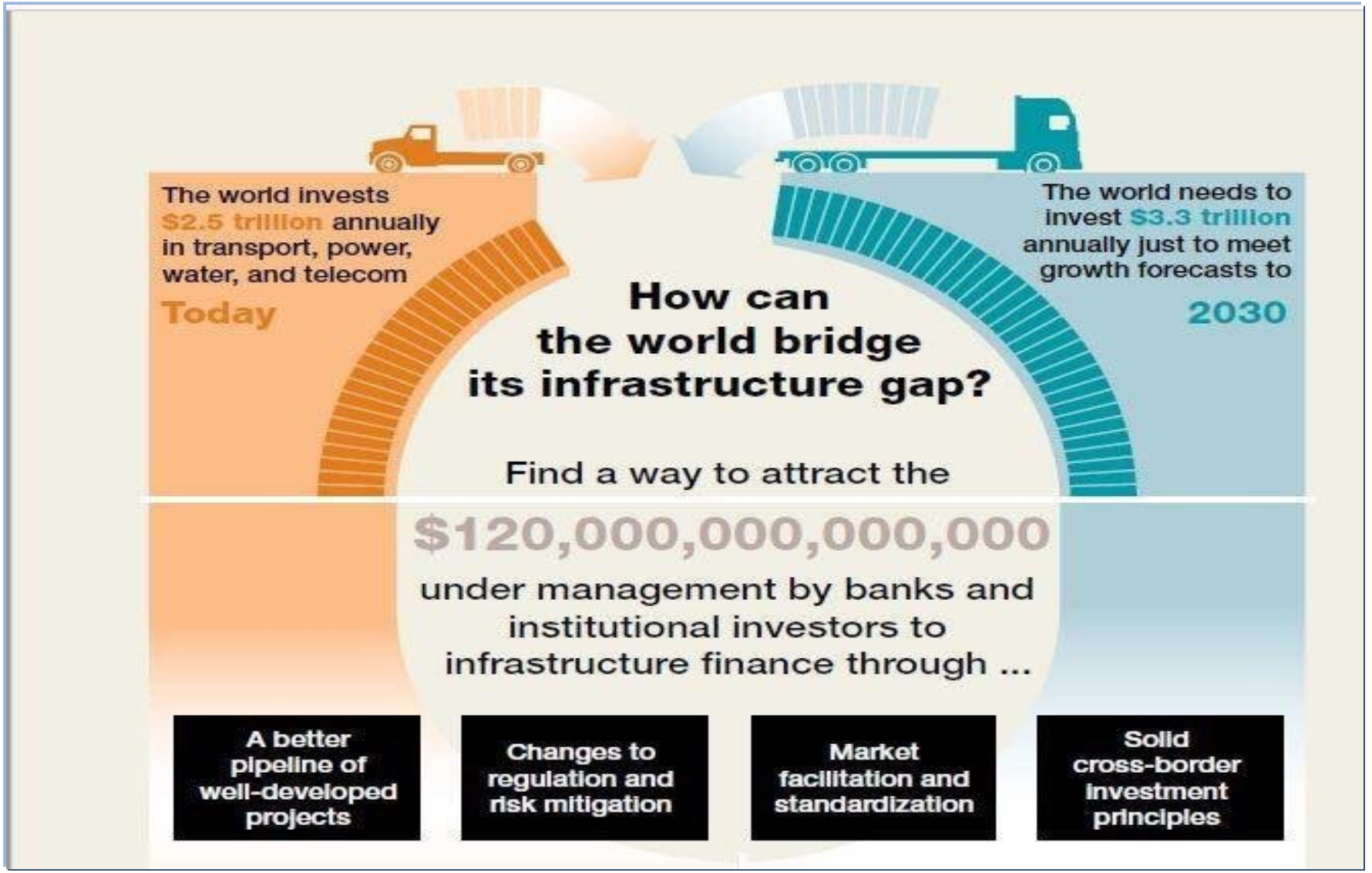
Investment



Government Spending

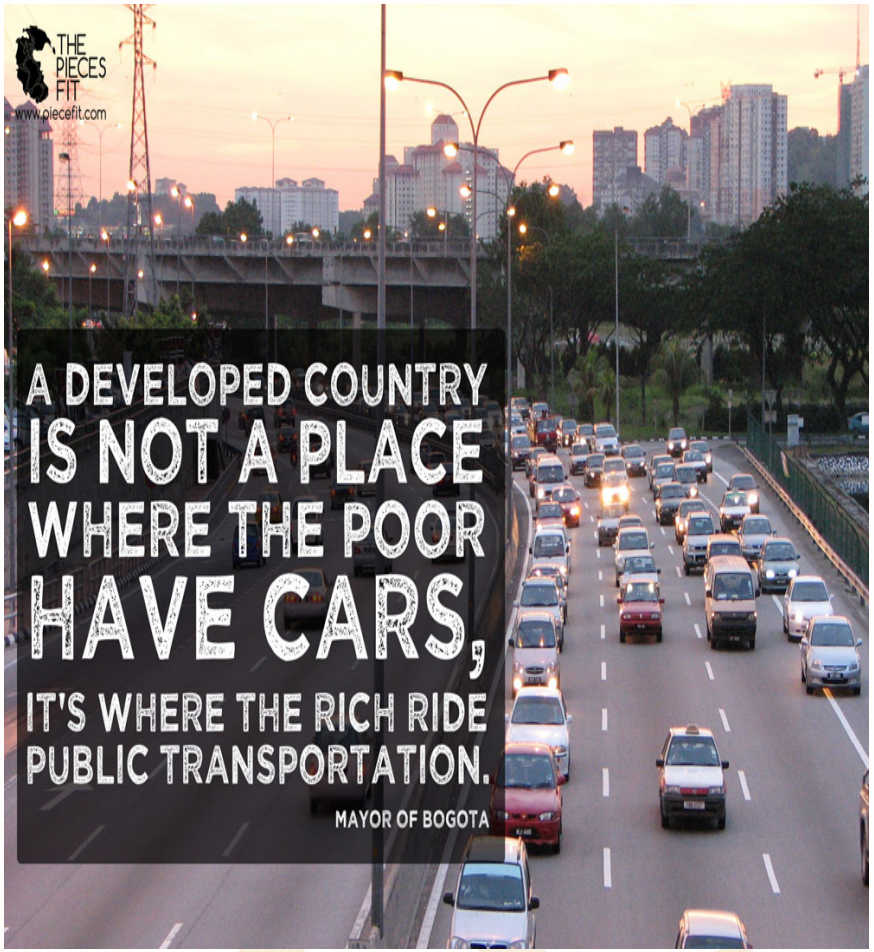


Money is not the problem?



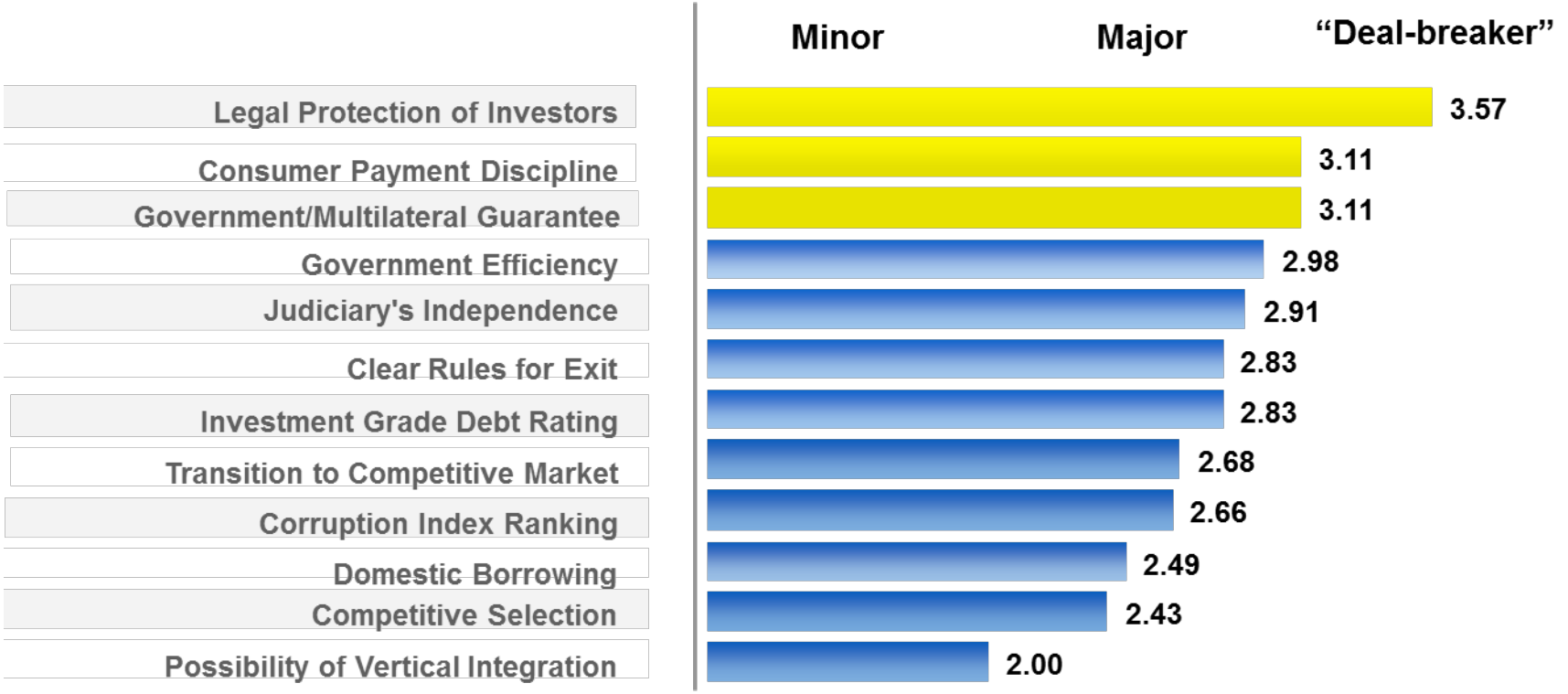
Herdsmen & Farmers Clashes – Transportation Infrastructure Problems

Mayor of Bogota

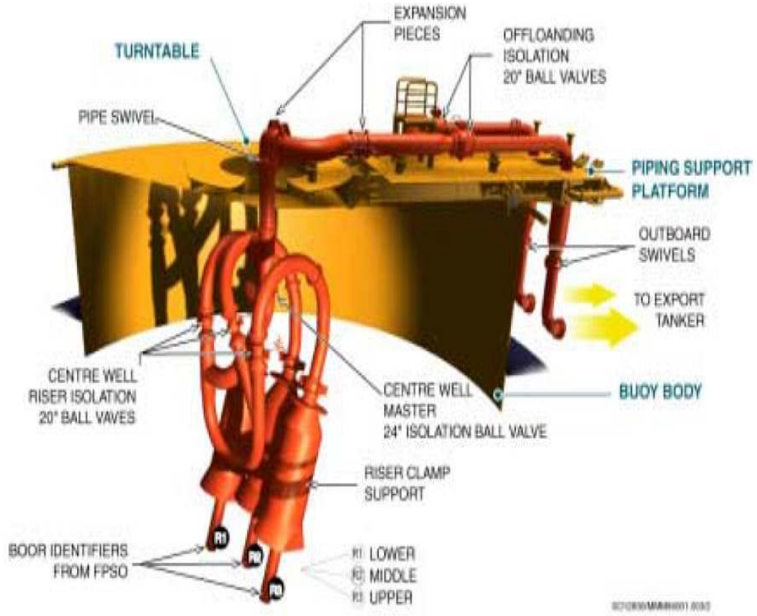


Legal Framework key
General Principles – Focus on Addressing Killer Risks

- World Bank surveys of investors have repeatedly shown that the issue of 'protection of legal rights' is the primary concern in making decisions as to where to undertake major infrastructure projects



Bonga FPSO and SPM Buoy



Types and features of PPPs

Typology of PPPs

FINANCIALLY FREE STANDING PROJECTS *Examples* -Toll Roads/ Bridges, Telecom services, Port projects	1. Role of public sector - planning, licensing & statutory approvals 2. No financial support/ payment is made by government 3. Revenues are through levy of user charges by the private sector
PROJECTS WHERE GOVERNMENT PAYS FOR SERVICES *Examples* - Roads - annuity/ shadow tolls, power - under PPAs. In UK - prisons, education, health services, defence related services	1. Private sector paid a fee (tipping fee), tariff (shadow toll) or periodical charge (annuity) by Government for providing services 2. The payment is made against performance 3. There may be demand risk transfer – either in part or whole
Note that: In both cases, the design, financing, construction and O&M risks are fully that of the private partner	
HYBRID STRUCTURES *Example – toll road project with either viability gap payment by government or annuity payment based road contract with tolling rights*	1. Combine the financially free standing nature – levy of a user charge – with payment by the public entity 2. Payment could be as a viability gap subsidy or an annuity payment

Forms of PPP

- **Service contracts:**
  - √ Private sector contracted for specific tasks
  - √ Capital investment and ownership of the asset is by the public sector
  - √ Public entity pays the private company for provision of services but retains the commercial risk
- **Management contracts:**
  - √ Private sector manages the utility but does not finance it
  - √ Capital investment and ownership are retained by the public
  - √ Public entity pays private manager a fixed management fee
  - √ Commercial risk is held by the public
- **Lease:**
  - √ Private sector manages the utility and finances the O&M
  - √ Capital investment and ownership are retained by the public
  - √ Private operator collects revenues and pays to the public entity a fixed fee
  - √ Commercial risk is shared

Forms of PPP (Cont...)

- **Concession:**
  - √ Private operator manages the utility and finances new investments as well as O&M
  - √ Capital investment is made by the private operator but ownership is retained by the public
  - √ Private operator collects revenues and may pay a concession fee to the public entity
  - √ Commercial risk is borne by the private operator
- **BOT (and other variations e.g. BOOT, BTO, DBOT, DFBOT, etc)**
  - √ Private operator builds new infrastructure, operates it for fixed period and transfers it to public sector
  - √ Capital investment is made by the private operator, but ownership is by both at different points in time
  - √ Public utility pays private operator for services provided by the new asset
  - √ Commercial risk is usually private, but could also be shared

Types of PPP's – Alphabet Soup

- **BOT** – Build Operate Transfer
- **BOO** – Build Own Operate
- **BOOT** – Build Own Operate Transfer
- **DBF** – Design Build Finance
- **DBFO** – Design Build Finance Operate
- **DBO** – Design Build Operate
- **BLT** – Build Lease Transfer
- **BTO** - Build Transfer Operate
- **DBFOM** – Design Build Finance Operate Manage
- **Leasing**
- **Operations or Management Contracts**
- **Cooperative Arrangements**
- **LROT** – Lease Renovate Operate Transfer
- **DCMF** – Design Construct Manage Finance
- **BOOR** - Build Own Operate Remove

Key Technical Benefits of PPPs Procurement

1. Rigorous project preparation – since the focus shifts to developing bankable projects

2. Delivery of a whole life solution – going beyond asset creation and including Operation and Maintenance (O&M)

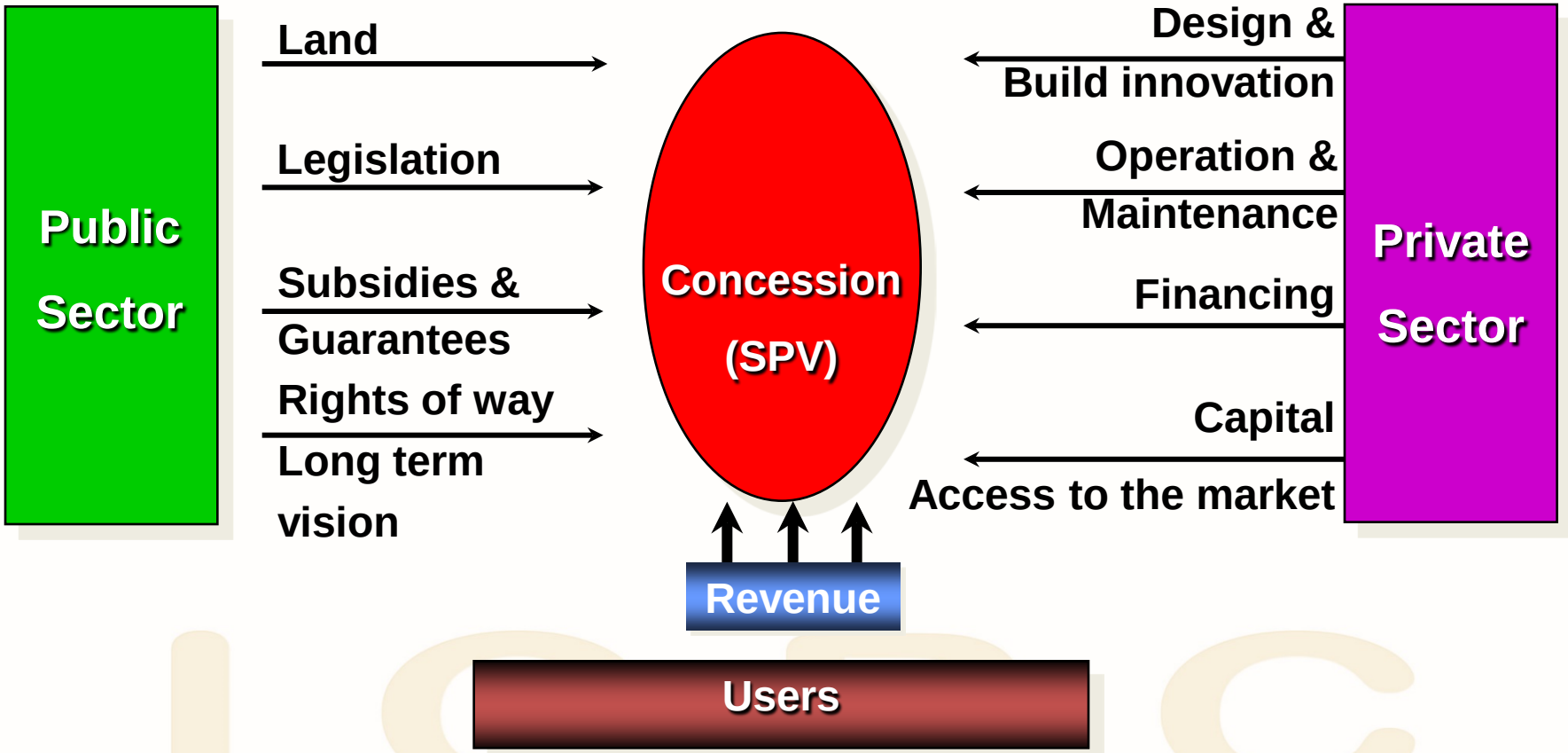
3. Focus shifts to service delivery – construction responsibility is integrated with O&M obligations and together with appropriate quality monitoring and service delivery-linked payments such an arrangement could enhance the levels of service delivery

4. It is possible to adopt a programmatic approach to infrastructure development and service delivery – various time bound projects can be integrated under a programme and have a time-bound implementation plan

5. Can lead to better overall management of public services – transparency in selection and ongoing implementation

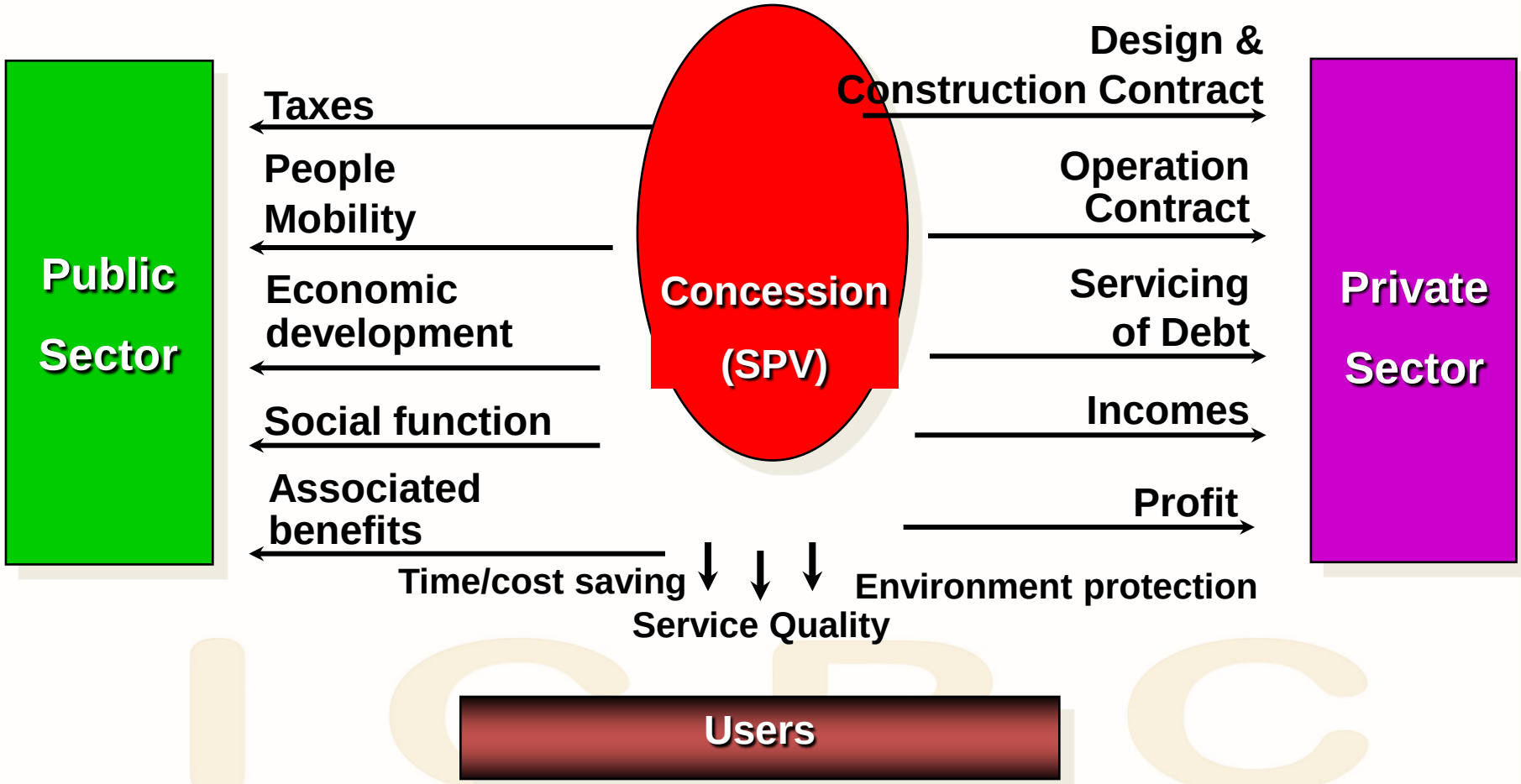
PPP Advantages (1)

- What each party brings to a PPP



PPP Advantages (2)

- What each party gets from a PPP



Advantages of PPPs

- Maximizes the use of each sector's strength
- Reduces development risk
- Reduces public capital investment
- Mobilizes excess or underutilized assets
- Improves efficiencies/quicker completion
- Improves service to the community
- Improves cost effectiveness
- Shares resources
- Shares/allocates risks
- Mutual rewards

PPPs are about !!!

1. Mobilizing private sector's money, expertise and capacities for infrastructure development
2. Long- term relationship between government and private sector (usually>10years)
3. Sharing of Risks and Rewards *(no lop-sided agreements-privatizing the profits, nationalizing the loses)*
4. Private sector performs to agreed KPIs
5. Life cycle focus (operations and maintenance)

Government is moving from role of Developer & Operator to Facilitator

Suitable Candidates for PPP's

- **Transport** (road, rail, ports, airports)
- **Fixed links** (bridges, tunnels)
- **Water resources** (filtration plants, irrigation, sewage treatment, pipelines)
- **Tourism** (facility development)
- **Health** (hospitals and specialized health services)
- **Specialized accommodation** facilities (courts, police stations)
- **Educational facilities** (schools, museums, libraries)
- **Correctional services** (prisons, remand and detention centers)
- **Arts, sport and recreational facilities**
- **Convention centers**
- **Government office accommodation**
- **Social housing**

Experience is transferable - "Lessons learned from one . . ."

Public procurement: Traditional v/s PPP

Characteristic	Public procurement	PPP
Focus	Procuring Assets	Procuring Services
Project management	Public sector is responsible for all project management roles	Private sector manages overall project - design, construction, operations and maintenance. Focus on project life cycle expected to bring efficiency.
Service Delivery	Public sector directly responsible for service delivery to users	Private sector directly responsible for service delivery to users
Financing	Public sector responsible for financing the project. Thus financing impacted by budgetary allocations and then actual disbursements	Private sector may contribute finance through debt and equity issuances
Risk Sharing	Public sector bears all project risks. Risk sharing limited to the extent of warranties.	Risks allocated to parties which can manage them most efficiently
Contractual Arrangement	Short term, generally segregated contracts for asset creation (BOQ based) and maintenance.	Long term contracts- Public sector/users pay for services linked to performance.

PPP: The public sector procures a service, not an asset, from the private sector.

Key Differences between Privatisation & PPPs

	Privatisation	PPPs
Accountability/ Responsibility	Responsibility and accountability for **delivery and funding** service rests with the private sector	Responsibility and accountability for **service delivery lies with the public sector**
Ownership	Ownership rights and associated costs and benefits are sold **to the private sector**	Legal ownership of assets **retained by government**
Nature of Service	**Private sector** determines the **nature and scope** of services	**Both public (govt.) and private sector** contractually determine the nature and scope of services
Risk and Reward	Private sector assumes all inherent risks	Public and private sector share risks and rewards

PPPs: Common Myths/Concerns

Myth/Concern	Clarification
• Profit motive of private sector is incompatible with the service motive of public sector	**No.** The key is to harness private sector's profit motive, by incentivizing them to provide better quality service and earn ***reasonable return***.
• PPPs increase user tariffs	**Not Necessarily.** When appropriate safeguards like effective regulation and/or adequate competition are in place. However in sectors where existing tariffs are inadequate to cover costs of specified level of service tariffs may initially require some upward adjustment. Over time efficiency gains expected to rationalize tariffs.
• Money for PPPs comes from private sector "pockets"	**Initially, YES.** But private sector would make those investments provided they can recover those investments either from users or the government with reasonable return.
• Once a private sector partner is brought in, there is little or no role for the public sector	**No.** Public sector's role changes from direct involvement in construction and service provision, to ensuring that the PPP delivers value for money for the government and better services for users.

Some PPP Experience From Nigeria

MMA2 Airport Concession

- BOT contract agreement between the Federal Airports Authority of Nigeria (FAAN) and Bi-Courtney Limited (BCL)
- Original agreement signed in April 2003 (mainly granting concession to BCL)
- A supplementary agreement signed in June 2004 (mainly increasing construction period from 18months to 33months)
- An addendum Agreement signed in February 2007 (mainly extending concession period from 12 to 36 years)
- Main areas of Dispute:
  - Operation of the GAT by FAAN
  - The Tenure of the Concession (36 Years)
  - The Exclusivity Clause in the agreement

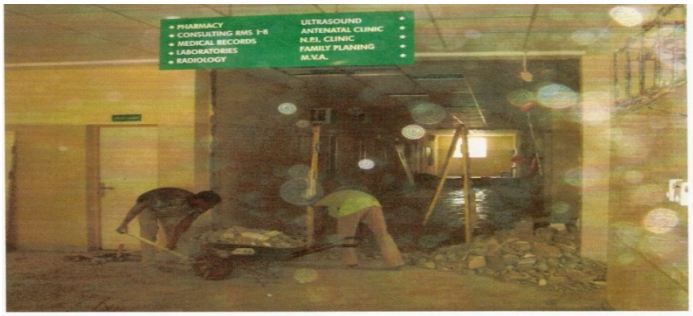
Lessons

- Inadequate Experience in Public and Private sectors
- Political Involvement at the implementation level.
- Asymmetry of knowledge between concessionaire and Government; No financial model and traffic risks not properly evaluated
- Not enough due diligence by contracting authority
- Project Development not thorough

Garki Hospital Abuja

- **Client: FCT Health and Human Services**
- **Sector**: Social Infrastructure- Health Sector
- **Year the project was signed**: 2007
- This was concession to NISA Premier Hospital Ltd in 2007 for a period of fifteen years (15yrs).
- The introduction of a public private partnership (PPP) arrangement in the hospital has been very effective in the delivery of services. The hospital performed its first successful heart surgery in July 2013 and also performed three (3) successful kidney transplants on the same day in November 2013. The hospital ranks in the top 50 of all evaluated hospitals in Nigeria.

(Cont...)



AFTER

BEFORE

Pre PPP Theatre

Garki Hospital Abuja

PPP Theatre: One Of Our 3 Theatres (June 2015 Cardiac Surgery)

Garki Hospital Abuja

PPP: ICU During June 2015 Cardiac Surgery

Garki Hospital Abuja

Pre PPP Radiology

Garki Hospital Abuja

PPP Radiology (CT Scanner)

Garki Hospital Abuja

Pre PPP Laboratory

PPP – One of our laboratories

Garki Hospital Abuja

Ports

- Major Ports reform in 2004, to improve clogged, inefficient, and very expensive ports.
- Experienced private operators engaged through Concessions to rehabilitate and Manage 26 ports.

- Months after the concession of the Apapa-Lagos container terminal, delays for berthing space had dwindled, and shipping lines reduced congestion surcharge from $525 to $75, saving the Nigerian economy an estimated $200 million a year.
- Goal of concession yet to be fully achieved due to external factors and actors

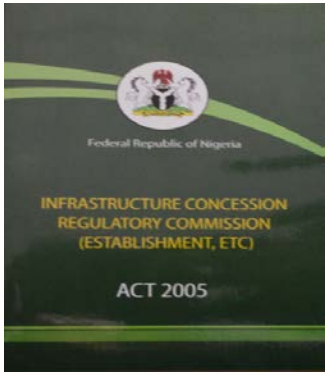
Lessons

- Transaction activities should not be targeted at the signing of concession contracts
- Risk allocation should consider Government Capacity to deliver (channel depth, wrecks, RoW)
- The transaction lead agency should be the grantor who remains accountable for services
- "Political Clock" not the same as Project time
- Success requires an integrated approach (Roads, Customs, Rail, Security, State Govts)

Nigerian Legal and Regulatory Framework for PPPs

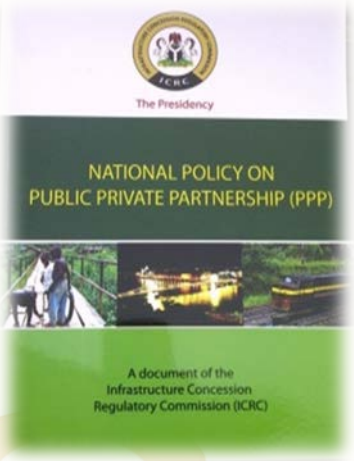
Framework for PPP

The Infrastructure Concession Regulatory Commission Act (Establishment Etc,) Act 2005.



In 2009, the Federal Executive Council (FEC) approved a **National Policy on PPP** which provides guidance on PPP project structuring.

Presidential Circular of September 2013 directing All MDAs to engage with the FMoF and ICRC PRIOR to commencing PPP projects. MDAs to establish PPP units



Annual Report to the President presented every year in June.

Transparency and Competition

Framework for PPP

ICRC's Functions:

- Regulate Public Private Partnership (PPP) procurement by:
  a. Guiding MDAs in structuring PPP transactions for both **green field** and **brown field** infrastructure – Pre Contract regulation
  b. Taking custody of all executed agreements and ensuring compliance-Post Contract Regulation
- Issue PPP regulations and guidelines
- Collaborate with state governments to develop a sustainable national framework

Framework for PPP

What others do :

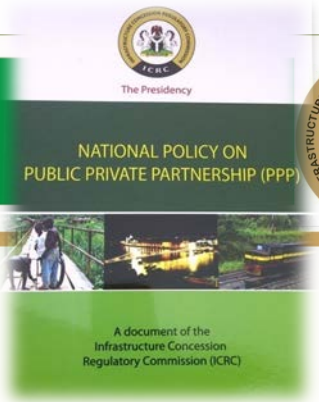
- Initiate PPP projects – **MDA responsibility**
- Develop the Projects – **MDA responsibility**
- Approve PPP projects – **FEC approves**
- Enforce court judgments over PPP transactions – **Courts' Mandate**

Framework for PPP

The PPP Process:

- Knowledge, experience and skills required to go through PPP phases:~
  1. PPP Project Initiation,
  2. PPP Project Development,
  3. PPP Project Procurement,
  4. PPP Project Implementation
  5. Asset return

PPP Lifecycle in line with National Policy



Preliminaries

- ***Project Identification***
- ***Project Prioritization***
- ***Project Selection***

Development Phase → **Procurement Phase** → **Implementation Phase**

TRANSACTION ADVISER
NEEDS ANALYSIS
PPP OPTIONS APPRAISAL
VALUE FOR MONEY
AFFORDABILITY
SUSTAINABILITY
PRELIM RISK MATRIX
VIABILITY/BANKABILITY
VGF
OBC
OBC APPROVAL BY FEC

TRANSACTION ADVISER
EoI/RFQ Phase AND RFP
BIDDING
BIDDERS CONFERENCE
BID EVALUATION
VALUE FOR MONEY TEST
PREFERRED BIDDER
FULL BUSINESS CASE
BY FEC

INDEPENDENT ENGINEER
MONITOR DESIGN AND
CONSTRUCTION
COMMISSIONING TEST
VERIFY OUTPUT
REQUIREMENTS
CONTRACT MANAGEMENT

PREPARING AND IMPLEMENTING EFFICIENT AND EFFECTIVE PPP TRANSACTIONS

PPP Projects must be Bankable & Affordable

- IRR > Weighted Average Cost of Capital
  - RoE > Shareholders Requirement
- Debt Service Cover Ratio > Bankers or Lenders Requirements
- Loan Life Cover Ratio > Bankers or Lenders Requirements

Focus on not just comparative but competitive advantage !!!

Ideas don't get funded bankable projects get funded.

You must take to market projects with robust cash flows and cost reflective returns

N4P Principles

- **Value for Money**

  Ensure project appraisals take into account not only cost but also risks and service quality

- **Public interest**

  Adequate and prior consultation with stakeholders.

- **Output requirements**

  The Concept of **"verifiable service standards"** to be used as basis for output or performance based specifications.

- **Transparency**

  Transparency in all procurements is key requirement of the law.

- **Risk allocation**

  Risks allocated to the party best able to manage them.

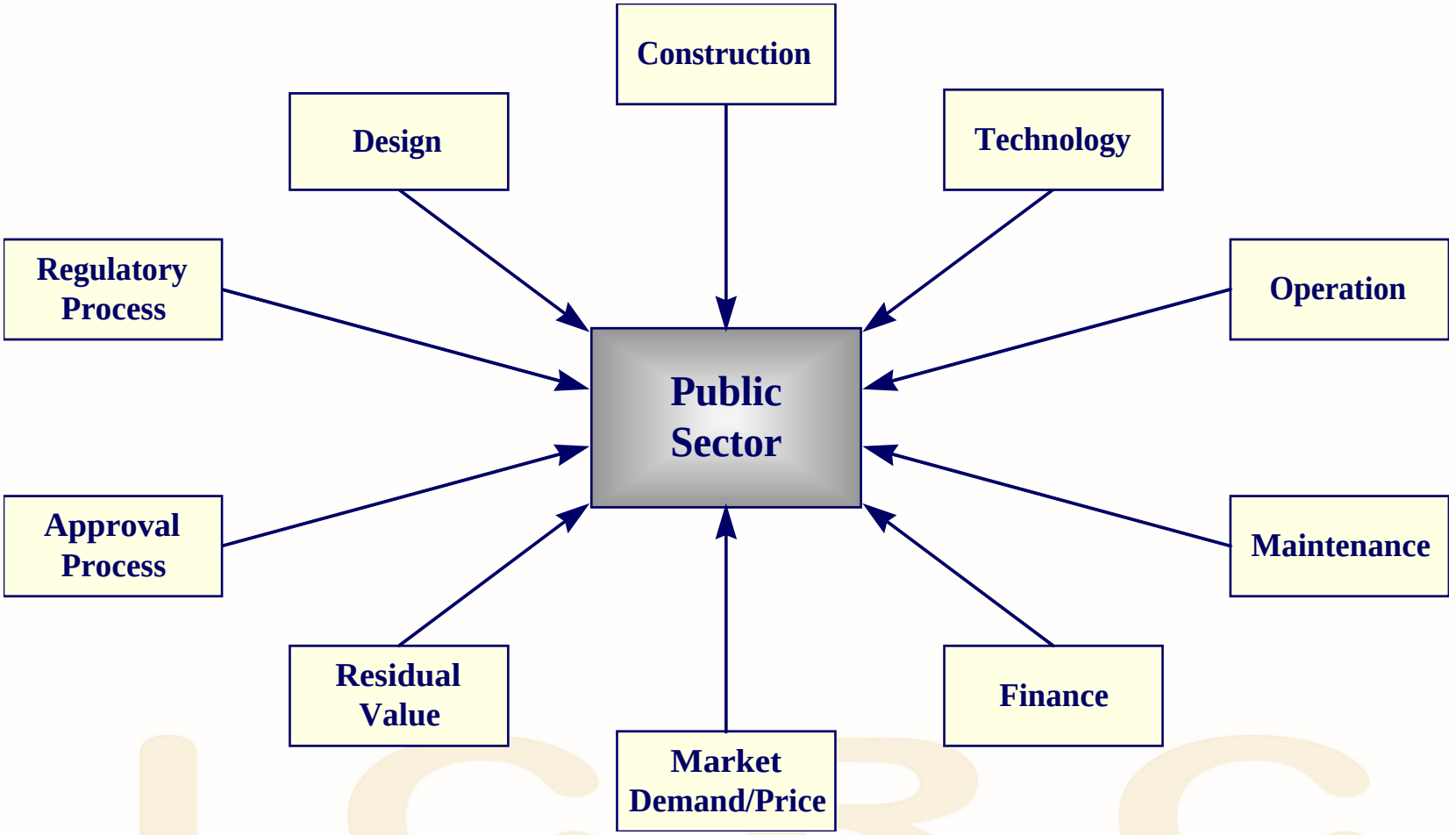
- **Competition**

  The law requires that no project is procured without subjecting it to competition.

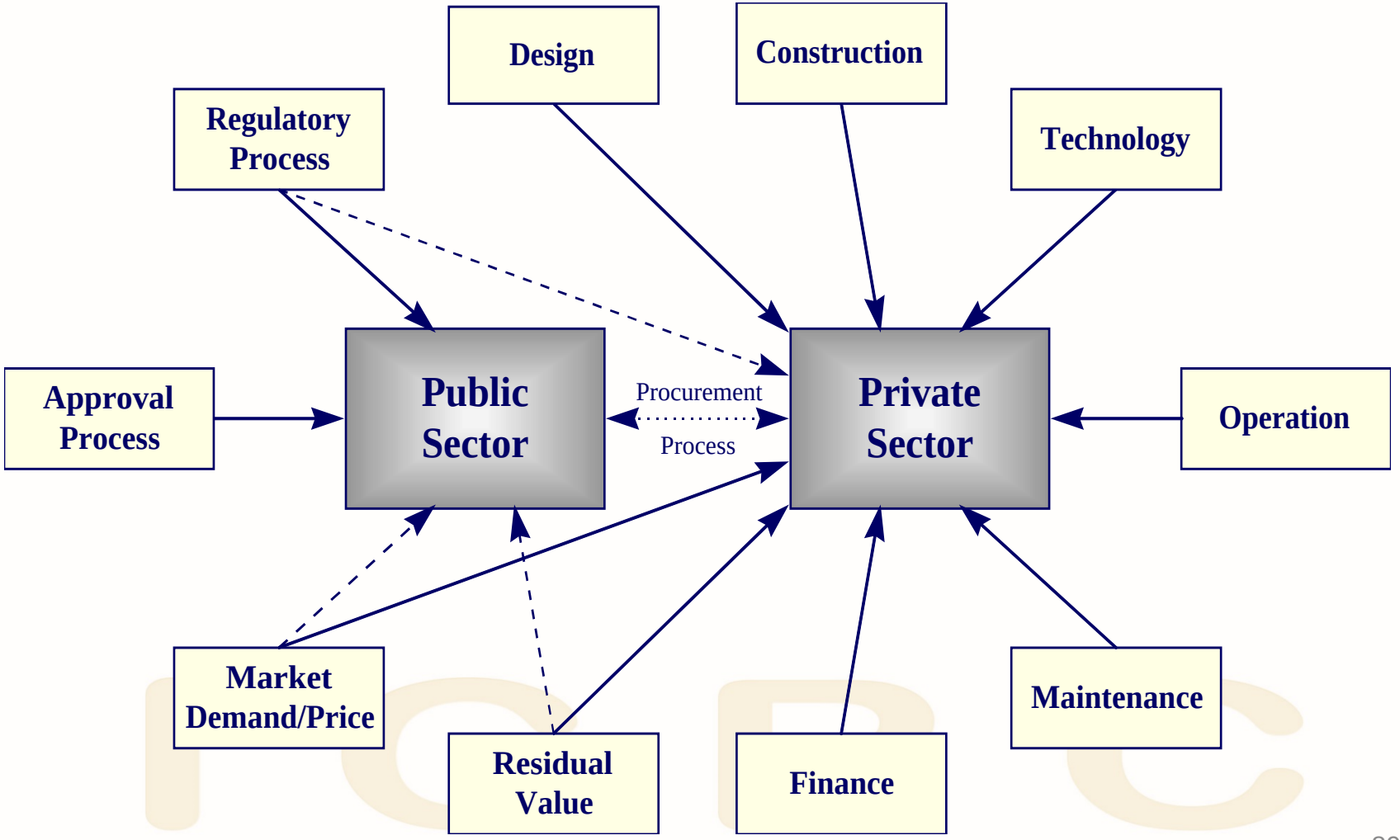
- **Capacity to deliver**

  Ensure Project Proponents wishing to partner with government to deliver and operate infrastructure have the capacity to handle the responsibility.

Traditional Risk Allocation



PPP- Risk Allocation



PPP Procurement Routes

SOLICITED ROUTE

- Well prepared bankable projects to Market
- Transparent and Competitive Bidding
- May Require Government Funding Support
- Timely Financial Closure Required

UNSOLICITED ROUTE

- Bankable Business Case by Project Proponent
- Must be part of strategic plan of government
- Indicative Funding Available
- Negotiate or Subject to Competition via Swiss Challenge etc
- No Government Funding Support

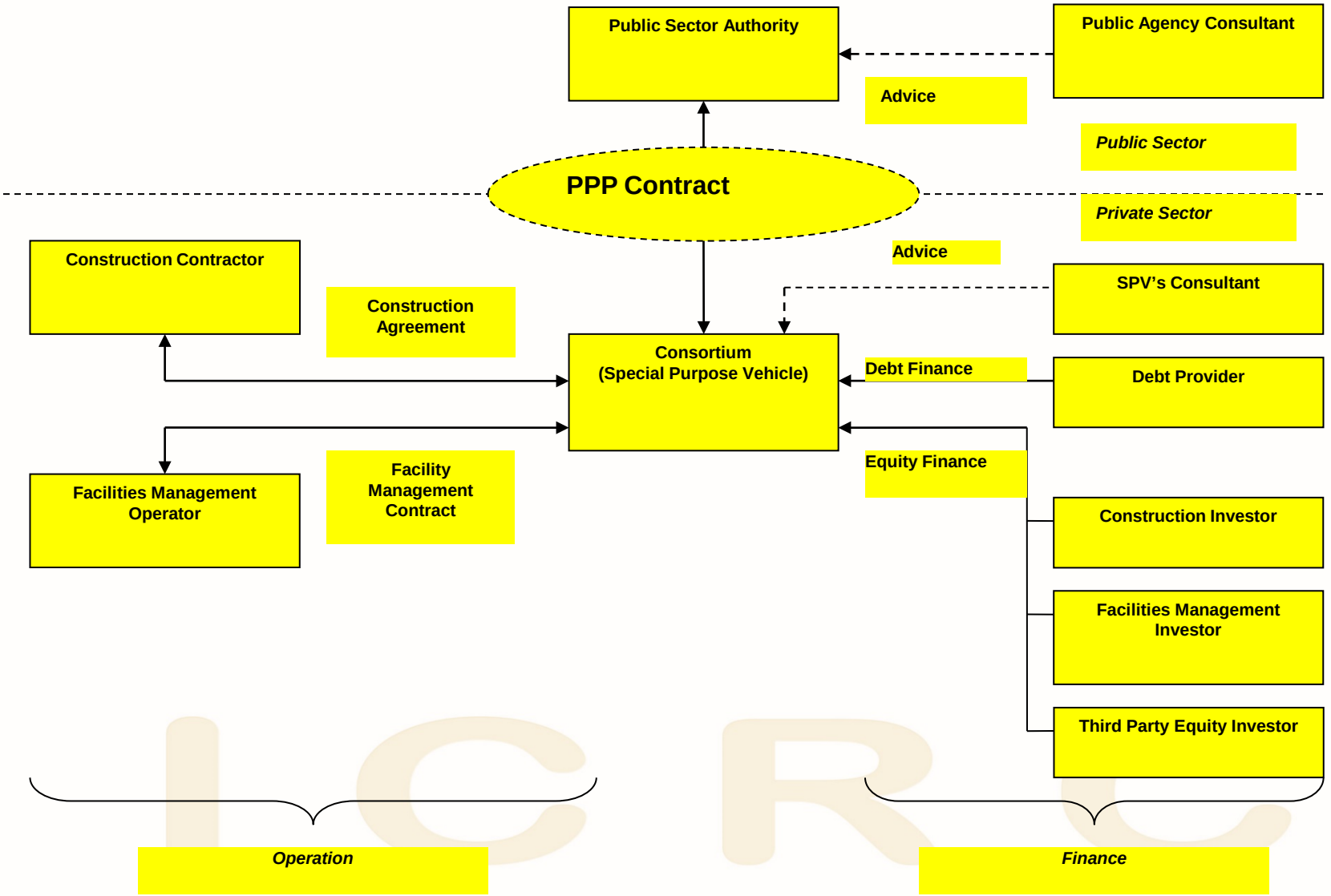
Unsolicited PPP Proposal Route

Initiated by Private Party (must be full proposal with development phase complete or nearly complete ie, bankable OBC)

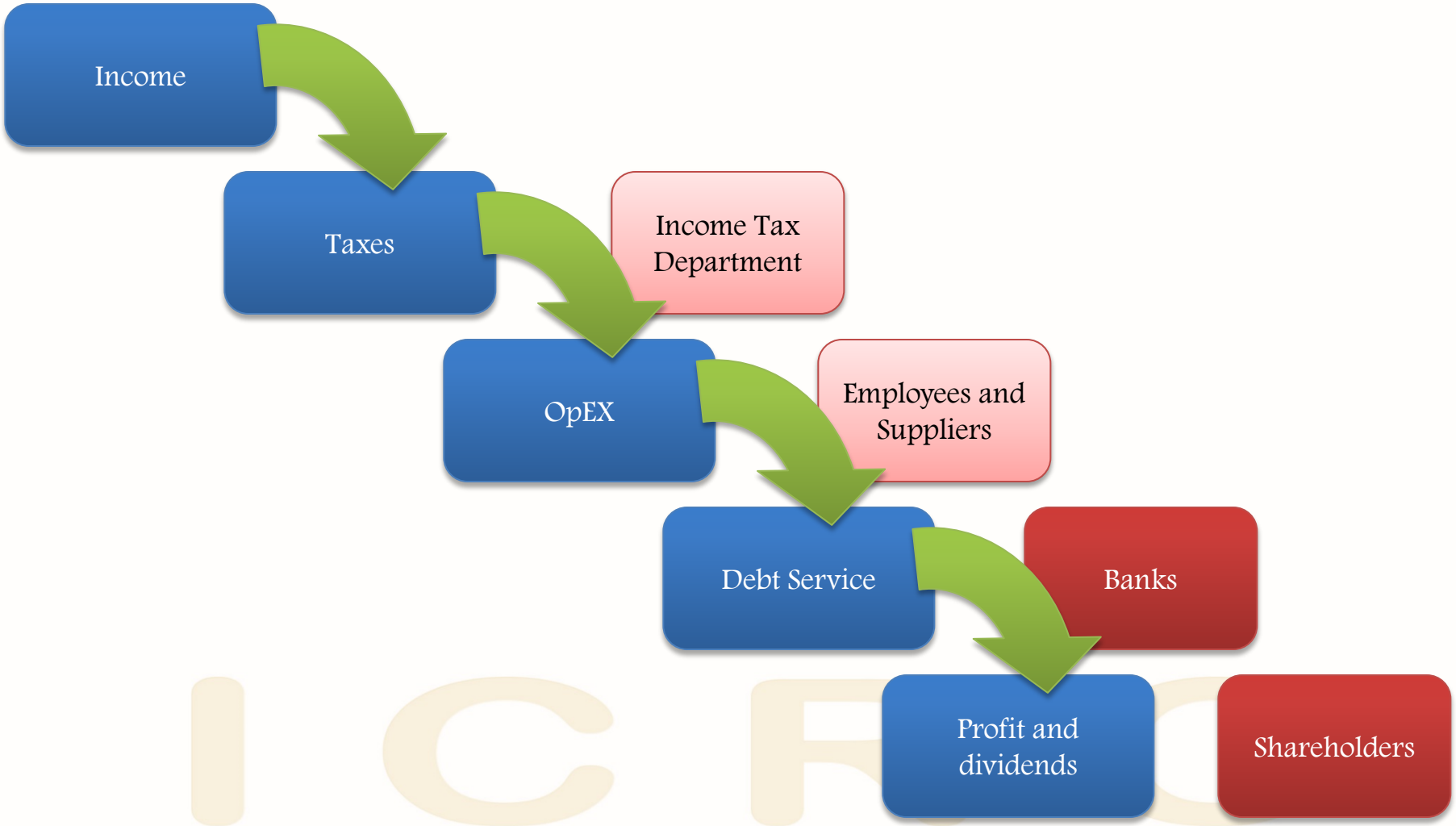
- (Unsolicited proposals means moving straight into PPP procurement phase)
- Contracting Authority Receives and Makes Preliminary Review
- Does proposal certify requirements
- Decision to use Swiss challenge to introduce competition
- Counter proposals requested for
- Review and Award

Opportunities and Challenges

...Structure of a Typical Large PPP Project



Cash Flow Waterfall



Opportunities in the PPP Procurement Journey

- Transaction Adviser (TA)
  - Lead
  - Technical
  - Legal
  - Financial
  - ESIA

- Concessionaire
  - Preferred Bidder

Project Development

PDT/PSC

PPAct 2007

TA/PDT

Procurement

Participation in the PPP Value Chain

- Advisory Services
  - Member Transaction Adviser
  - Independent Engineer
  - Individual Consultant Engineer to Public Party or Private Party
- Construction (EPC)
- Operation & Maintenance
- Monitoring & Evaluation

Challenges to PPPs

Weak public sector sponsors / government

- Most governments generally lack the skills required to drive PPPs. Private sector participation is often resisted by public sector officials, for fear of:
  - Loss of control,
  - Negative implications of reductions in staff numbers
  - Negative public reaction, and

- Limited PPP experience in many countries creates an element of risk and fear of the unknown
- There is a tendency for greater PPP visioning by parastatal and government utility agents than directly from national governments.

Challenges to PPPs

Fiscal and Service Delivery Affordability

- Contingent liability issues
- Public sector debt and fiscal space
- Affordability and willingness to pay by users (per capita income is already low). Tariffs are likely to increase when PPPs are implemented and cost reflective tariffs are charged. In addition, many PPP projects in Africa will inevitably require government or donor financial support in the early years.
- Lack of long tenor funding
- Limited (demonstrable) long term integrated planning

Challenges to PPPs

Low institutional and managerial capacity

- Institutional Capacity shortages in respect of:
  - Project initiation
  - Funding for project preparation and development
  - Policy support for active PPP development in each sector,
  - Regulatory and enforcement framework,
  - Weak or ineffective regulatory powers over natural monopolies,
  - Lack of a private sector and customer focus
  - Result in additional project risks and cost with impact on attractiveness

Challenges to PPPs

Legal systems

- Legal and regulatory systems to support complex PPP ventures are weak and where they may exist are not effectively enforced…..contract sanctity

Government / Political Interference/Flip Flops

- Interference particularly in respect of tariffs and the autonomy of PPPs at operational level reduces potential financial success.
- Fluctuating budgetary allocations or non-availability of government funds for PPPs which have been initiated, but require government support, can undermine success and increase project risk.

PPP Competence

ICRC's Initiatives

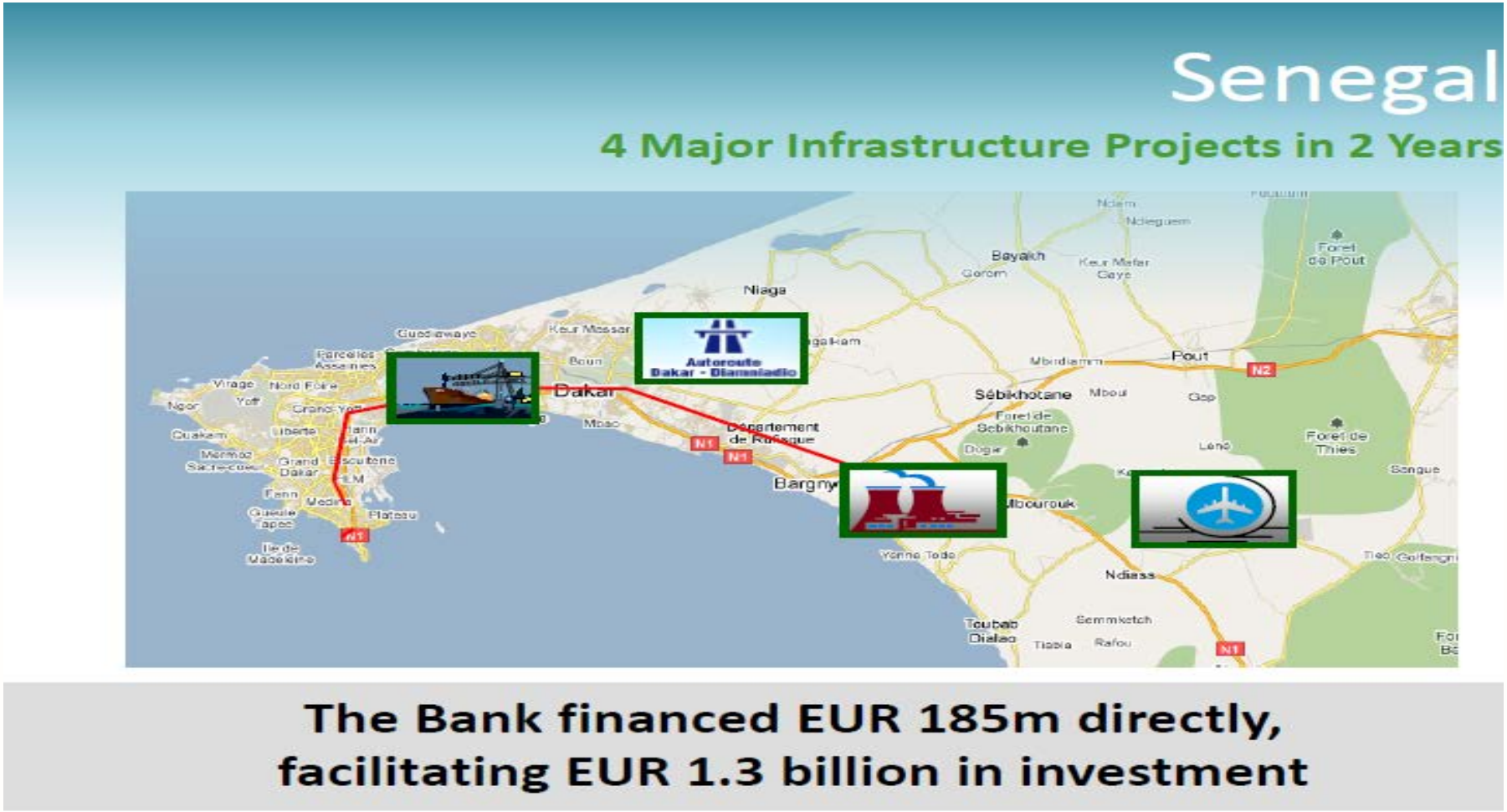
- The launching of the PPP Contracts web portal in collaboration with the World Bank - first of its kind in the whole world
- ICRC Academy in the Pipeline
  - Facilitated the PPP professional foundation certification (APMG) of 55 Nigerians from various MDAs out of about 65 people which took the exams
- Nigeria Integrated Infrastructure Masterplan
- Nigeria Infrastructure Development Fund
- Annuity PPPs Pipeline of projects for the Vice Presidents Office
- Nigeria Sovereign Investment Authority and Third Party Infrastructure Guarantee Fund
- World Bank Adaptable Program Loan
- Amendment of ICRC Act

Fruits of Knowledge

Sample PPP Experience From Other Regions

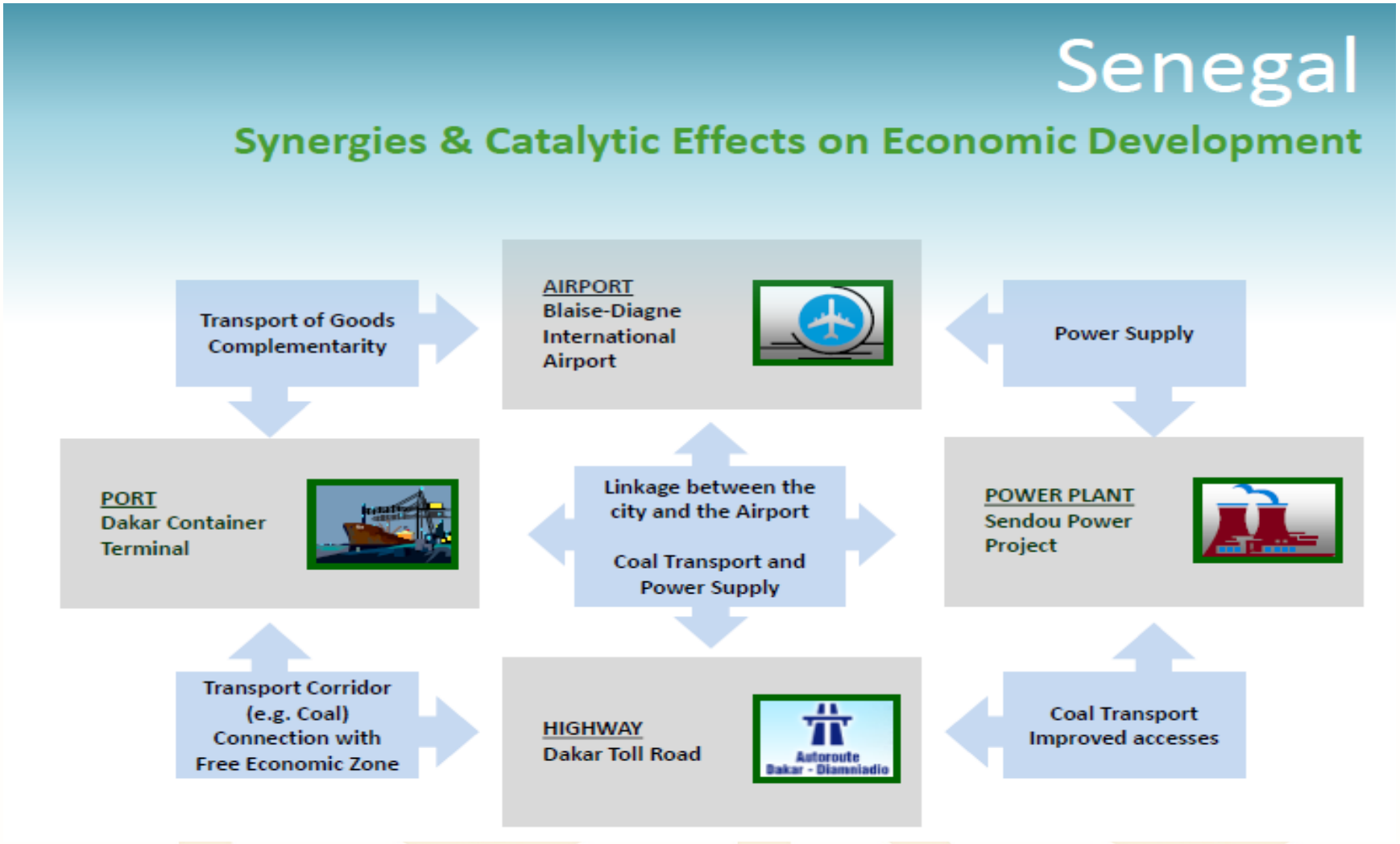
Lesson from Senegal

Multi Modal and Connected



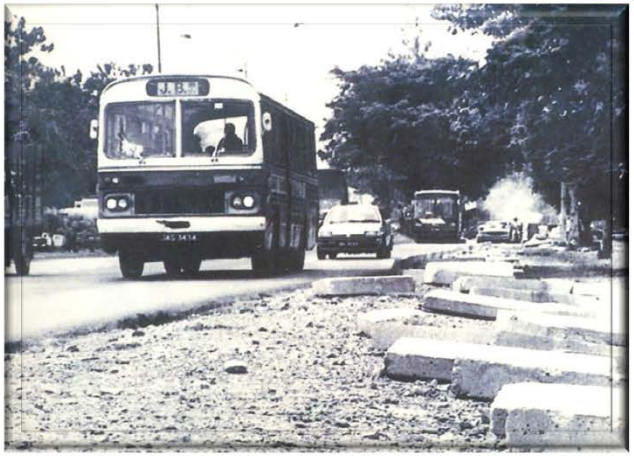
The Bank financed EUR 185m directly, facilitating EUR 1.3 billion in investment

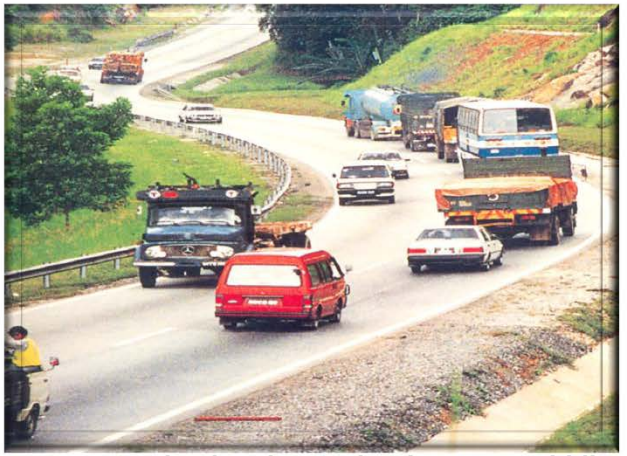
Lesson from Senegal ... Cont'



Lessons from Malaysia

MALAYSIAN ROADS : 1970 – 1980

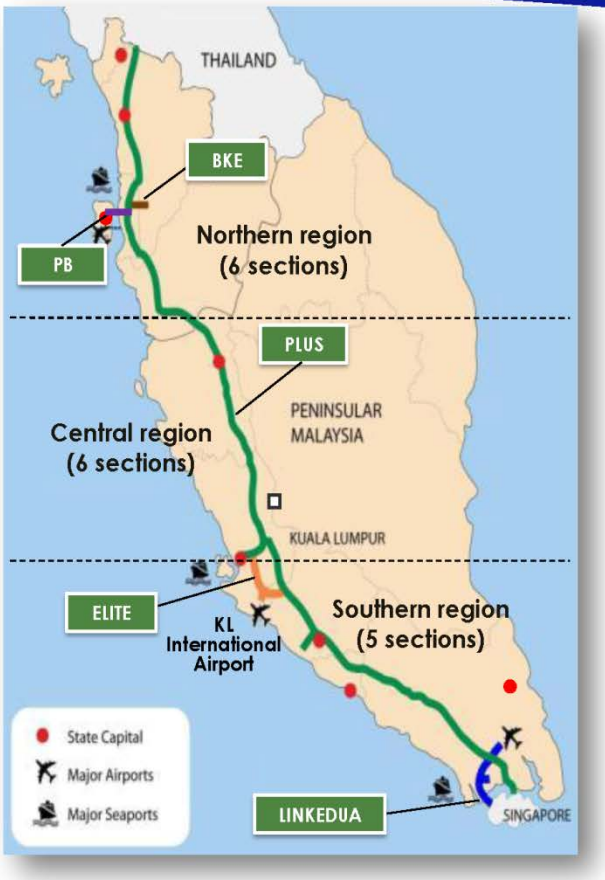




Source: Plus Malaysia Berhad, 2015

Lesson from Malaysia ... Cont'

AVERAGE GDP GROWTH OF STATES Along North-South Expressway (NSE)



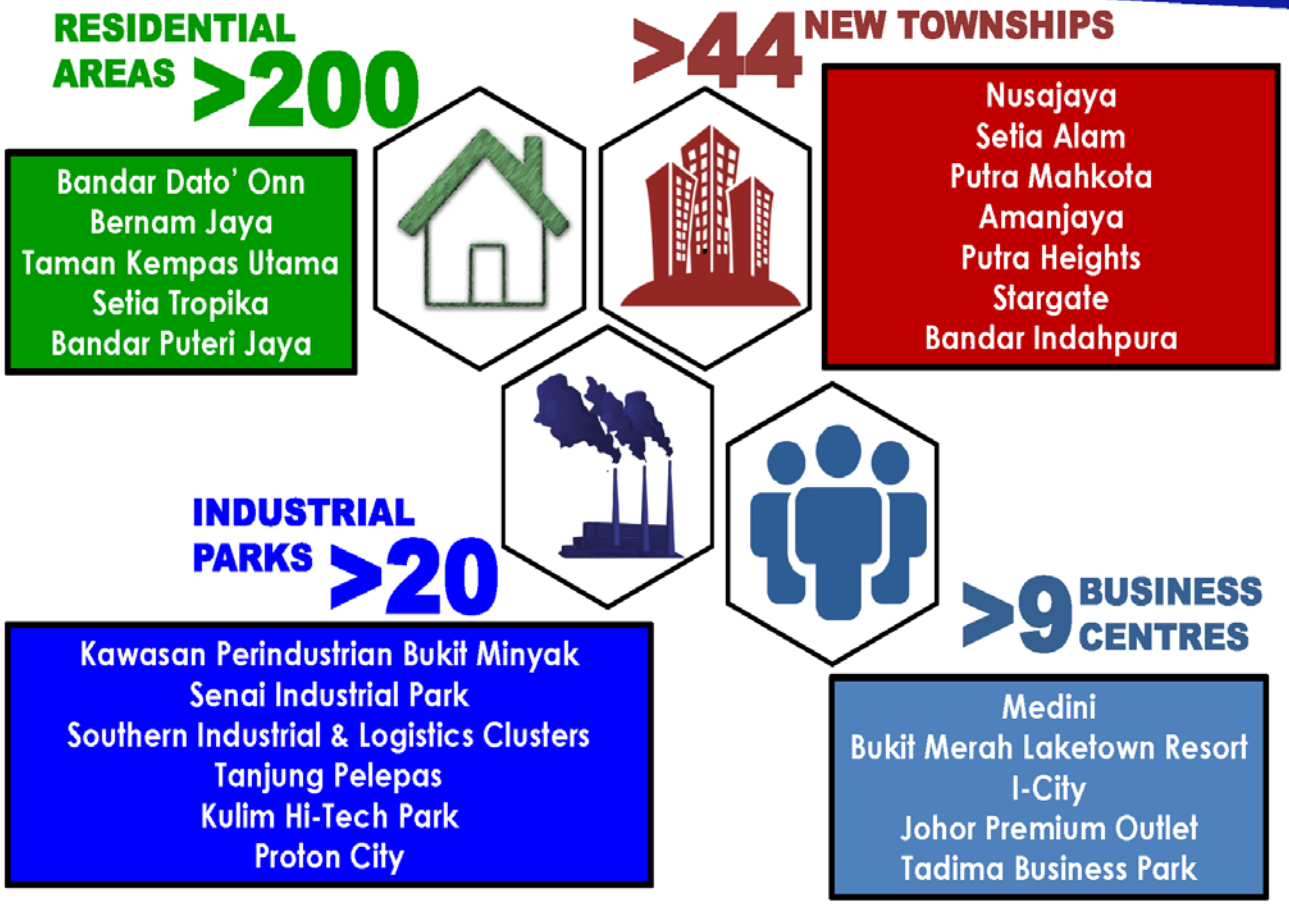
	GDP GROWTH	
	1989 - 1993	2000 - 2013
States	Before	After
Kedah	4.7%	**7.5%**
Penang	4.5%	**7.5%**
Perak	4.7%	**7.3%**
Selangor	5.4%	**7.7%**
N. Sembilan	3.9%	**7.1%**
Melaka	4.5%	**7.3%**
Johor	5.0%	**7.7%**

Source: Plus Malaysia Berhad, Nov 2015

Presentation by Plus Berhard to Engr. Chidi Izuwah November 2015

Lesson from Malaysia ... Cont'

NEW TOWNSHIP, INDUSTRIAL PARK, BUSINESS CENTER AND RESIDENTIAL ALONG NSE



Source: Plus Malaysia Berhad, Nov. 2015

A Case Study: Tafila Wind & The Renewable Energy Program – Jordan

Background

Electricity Sector

- The Jordanian electricity sector is relatively small with installed capacity of 3,366 MW in 2011 and roughly 1,500 MW, or 40% of capacity to be added to keep up with demand which is expected to grow to 4,830 MW by 2020
- It is fully unbundled and privatized, with the exception of transmission, and one government owned generation company – 99.5% of Jordan's generation capacity is thermal
- The sector, which is reliant on imported fuel, has lost access to relatively low cost Egyptian gas, and for the foreseeable future will be dependent on expensive diesel and HFO, with implied average generation costs in the range of **~16 US cents/KWh** and a marginal cost of **~22 US cents/KWh**
- Jordan has a state-owned single buyer model, with all generation companies selling to NEPCO and NEPCO selling to the country's three privatized discos, and to large companies
- The average price of electricity purchased by NEPCO from the generation companies is significantly higher compared to the average selling price resulting in significant losses for NEPCO

Renewable Energy

- Jordan has strong solar and wind energy resources, which the government is moving actively to develop
- In its Master Strategy of Energy Sector in Jordan issued in December 2007 (and updated since), the Government of Jordan ("GoJ") aims to increase the participation of renewable energy sources in generation, from the current 1% to 7% in 2015 and to 10% in 2020
- This reflects both the cost-competitiveness of renewable, and the pressing need for diversification and energy security
- At a cost of **12 US cents/kWh** for wind and **17 US cents/kWh** for solar PV, renewable energy is considerably cheaper than thermal generation and does not require subsidies unlike in many other countries

The renewable energy program

- **Renewable Energy Law of 2010 ("RE Law")** establishes an alternative procurement process to the traditional competitive tenders – private companies with renewable energy projects can make unsolicited or direct proposal submissions to the Ministry of Energy and Mineral Resources ("MEMR")

- Objectives of the direct proposal scheme under the RE Law:

- Still provide common rules of procurement with competitive pressure (limited grid capacity)
- While acknowledging the commercial ability of developers to choose and optimize their site and technology
- And allowing multiple projects to proceed in parallel according to available grid capacity

- Qualification of developers via the **Round 1 EOI process** from may 2011 to April 2012 with:

- MOUs signed between 34 developers and the MEMR (15 for Solar PV, 12 for wind, 5 for Solar CSP and 2 for Solar CPV)
- Fixed tariffs published in advance to provide a clear and uniform commercial signal to all developers

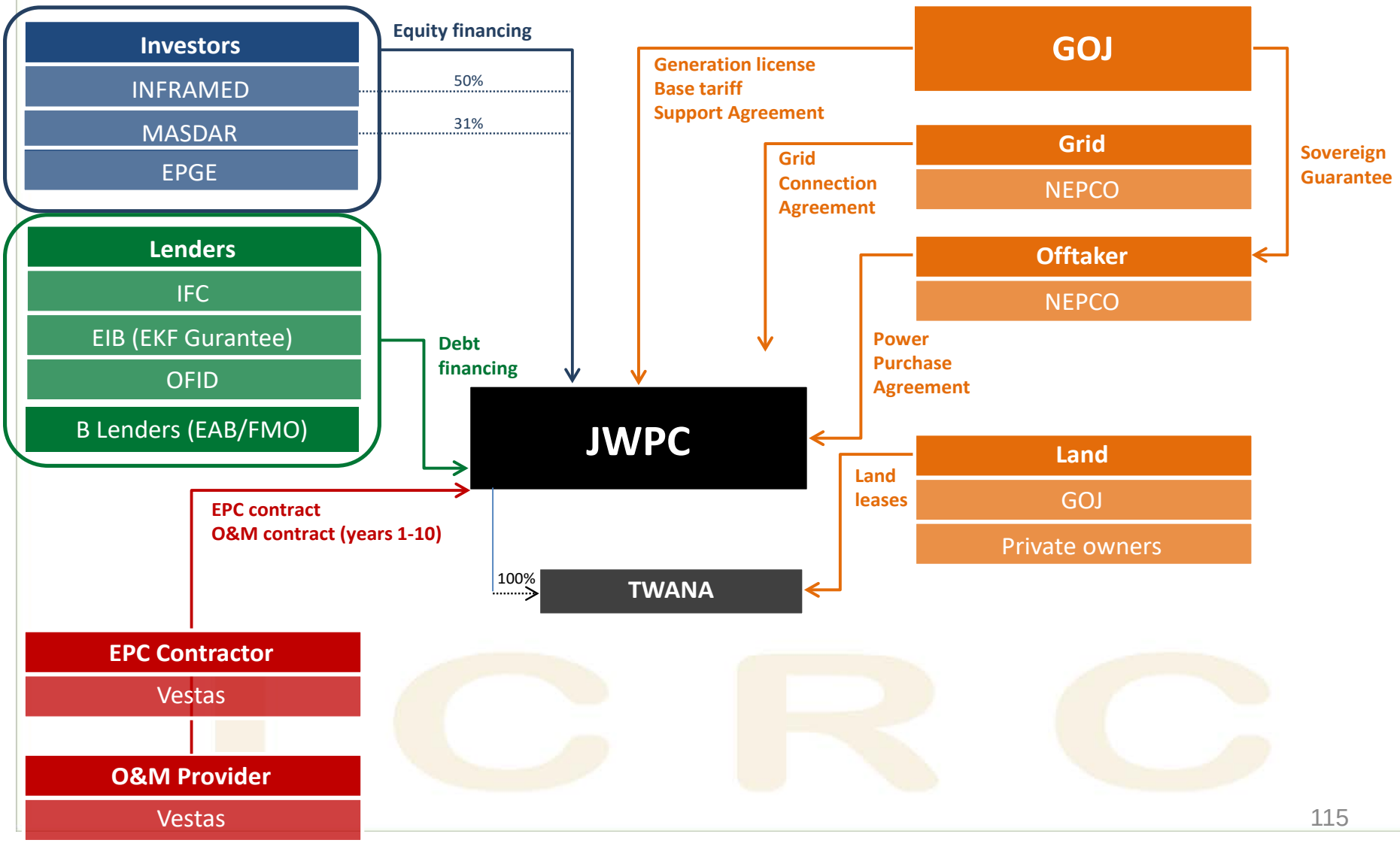
- As a preparation for Round 1 execution phase, MEMR piloted the direct proposal scheme with **Tafila Wind** directly negotiated deal, whose treatment was broadly consistent with the direct proposal scheme, to the exception of the competitive aspect of the EOI process

Source: Project Finance International, *The innovative seven sisters*, by C. Cantelmi (IFC) and M. Wood (White & Case)

Project Overview

Project Scope	Development, construction, operation and maintenance of a 117 MW wind farm and associated facilities located in the governorate of Tafila, in Southern Jordan
Concession Type	Build-Own-Operate ("BOO")
Construction	EPC contract (i.e. fixed price) with Vestas for site preparation, supply and installation of 38 3.075 MW V112 turbines, including LDs equivalent to 200 days of revenues
Operation	10-year O&M contract (+ 5-year extension option) with Vestas for operation and maintenance, including an availability warranty
Grid Connection	Substation to be built by NEPCO with the wind farm to be connected to the national grid through an existing 132kV line that runs through the site
Offtake	▪ 20-year Power Purchase Agreement ("PPA") with NEPCO at a price of JOD85/MWh (or US$120/MWh), including tariff adjustment mechanism for inflation and exchange rate variation ▪ Offtake on take-or-pay basis, i.e. demand and grid capacity risks are taken by NEPCO ▪ Sovereign guarantee provided by the GoJ to back-stop NEPCO's payment obligations under the PPA
Investment Incentives	▪ Accelerated tax depreciation mechanism ▪ 10-year income tax holiday with a tax rate of 3.50% (instead of 14%)
Project Cost	Total Project Cost of US$287 million: -EPC fixed price of US$209 million (73% of total Project Cost) -5% contingencies
Financing Structure	Financing structure based on minimum senior debt DSCR of 1.3x a debt-to-equity ratio of 76:23 -Equity of US$66 million -Senior Debt: US$206 million -Subordinated debt of US$14.4 million

Structure OVERVIEW



OUTCOME

- In November 2013, the 117MW Tafila Wind project became Jordan's first renewable energy IPP and one of a small number that have been privately financed in the region, as well as the first project under the new RE Law to have a PPA signed and to reach financial close:

- The project was awarded the Middle East Renewables Deal of the Year 2013

- The project commenced operations in September 2015, within budget and on schedule

- The project established the viability of the Jordanian renewable energy program and was a live forum and pathfinder to advance bankable documentation that could be replicated with limited adaptation to the direct proposal scheme

- The transaction structure and project documents negotiated with the GoJ have served as a template for the subsequent renewable energy projects developed by MEMR as part of the Round 1 EOI process

- In March 2014, MEMR signed 12 PPAs with Solar PV developers as part of the Round 1 EOI process: eight 10MW, three 20MW, and one 50MW project

- Inspired by the Government's programmatic approach, a standardized financing program led by IFC was agreed upon by 7 of the Solar PV projects and a uniform set of financing and security documents was drafted – the rationale for this coordinated approach was:

- Limited attractiveness of the projects for conventional lenders on a standalone basis (assortment of smaller, local or lesser-known developers, each individually pursuing small projects and lacking project finance experience and relationships)

- High transaction costs and long processing periods of conventional project finance lending difficult to sustain for small developers

- Significant similarities of all projects allowing a "one-size-fits-all" approach (20-year PPA, Sovereign Guarantee, interconnection and land lease agreements, similar PV technologies, 9 projects located side-by-side)

- Financial close was reached in September 2014

ProjectFinance Deals of the Year 2013

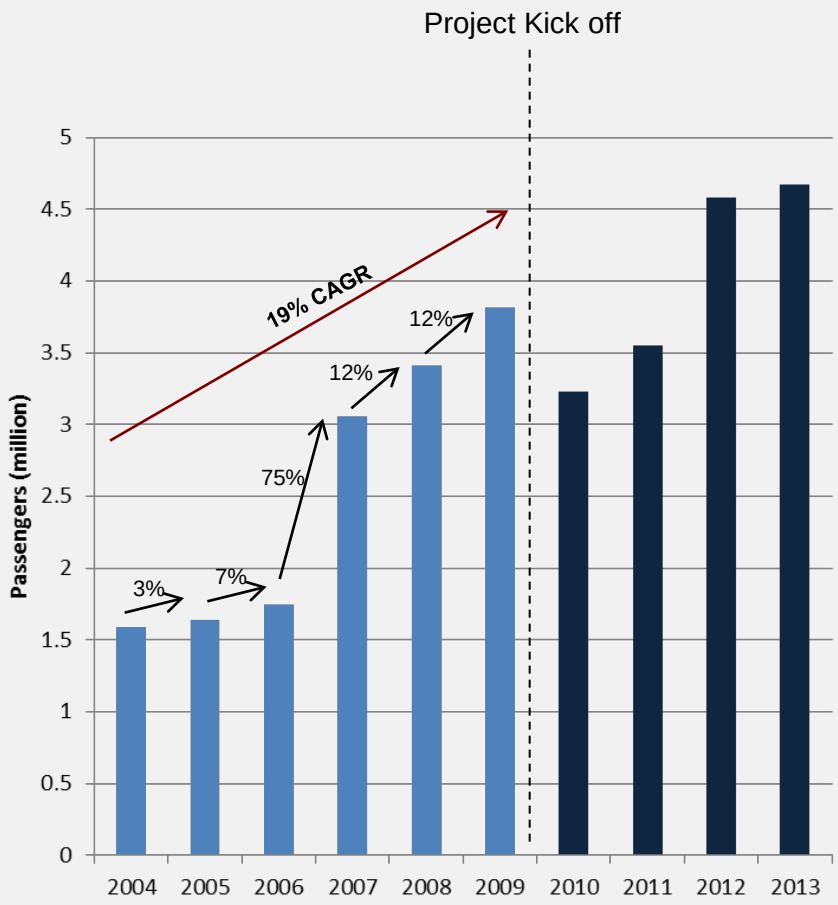
Source: Project Finance International, *The innovative seven sisters*, by C. Cantelmi (IFC) and M. Wood (White & Case)

B. A Case Study: Madinah Airport – Kingdom of Saudi Arabia

Background

- Significant growth in passengers in previous years:
  - 19% CAGR over 2004-09 and recorded 3.8 million passengers in 2009, a growth of 12% over 2008.
- Existing landside and airside facilities strained and insufficient to accommodate future traffic growth, and resulting in poor service quality.
- Requests by existing and new airlines were being refused due to lack of appropriate infrastructure.
- To address this situation, Saudi Civil Aviation sought private sector participation to refurbish and expand existing facilities, and build a new terminal and operate the airport under a long term concession.

Traffic Growth (2004-2013)



Structure Overview

Concession Type	25-year Build-Transfer-Operate ("BTO")
Operator Scope	▪ Design, Finance, Build, Operate Airside and Landside and collect corresponding revenues. The Investor will be required to finance and construct new facilities in Phase 1 including: 1. New 150,000m^2 Passenger Terminal Building to accommodate a capacity of 8 MPPA; 2. Upgrading and extending the existing runway and taxiway to Code 4F; 3. Upgrade of all apron infrastructure; 4. Equipping the runway with a CAT II lighting system. 5. Ancillary facilities (eg: staff accommodation, fire & rescue, meteorology, etc.) ▪ Existing airport facilities to be run / maintained by new operator ▪ Strategic activities by KSA authorities (ATC, customs, immigration, security)
GACA Role	Facilitation for key governmental services
Capex Triggers	▪ Phase 1 (2011-2014): 8 million passengers (new terminal, apron/taxiway expansion, runway extension) ▪ Phase 2 (2021-2024): As per passenger demand / throughput (terminal / apron / taxiway expansion and potentially a new runway)
Design Specifications	Minimum Standards set at RFP stage and providing flexibility for bidders to propose innovative concepts
Charge Structure	▪ New Airport Building Charge ("ABC") on all international passengers, in addition to existing aeronautical charges, set at SAR80 each way (US$21) which provides investor sufficient returns whilst generating revenue for GACA ▪ Multi-annual inflation indexation on ABC & Aeronautical Charges
Credit Enhancement	MoF guarantee covering Saudia and termination payments
Other	Competition clause; Shareholding stability requirements
Bid Evaluation	▪ Technical Minimum Technical Requirements + Technical Evaluation Scores ▪ Financial: Percentage Share of Total Gross Revenues + Upfront Fee ($11m)

Outcome

- Concession awarded to TAV led consortium late 2011 and closed June 2012 - largest infra project in 2012 regionally
- Significant gross revenue share flowing to Government
- First full airport PPP in GCC / second in MENA (after QAIA)
- Full compliance with Equator Principles (E&S)
- Targeting first Green Airport in MENA and only LEED Gold outside US (outperformed relative to standard certification contractual obligation)
- Full demand / volume risk transferred to private sector
- Traffic growth potential partially released prior to opening of new facility thanks to effective slot coordination regime and despite ongoing runway extension works

- 4.6MPPA FY12 (up 29% YoY)
- 4.7MPPA FY13 (up 2% YoY)
- 3.8MPPA (Jan-Aug 2014 = +26.1% YoY)

PFI AWARDS 2012

Middle East & Africa Infra Deal of the Year

WORLD FINANCE

Best Transport Project 2012, MENA

EUROMONEY

Best Project Finance Deal of the Year, 2013

emeafinance Project Finance Awards 2012

Best PPP Deal in the Middle East

Visuals – Progressing towards Final Design

Final Design

May 2014

Jul 2015 (opening)

DEPARTURES

Flight	Destination	Time	Status
MED 1	All Destination	Jul 2015	Completed 6 months ahead of schedule

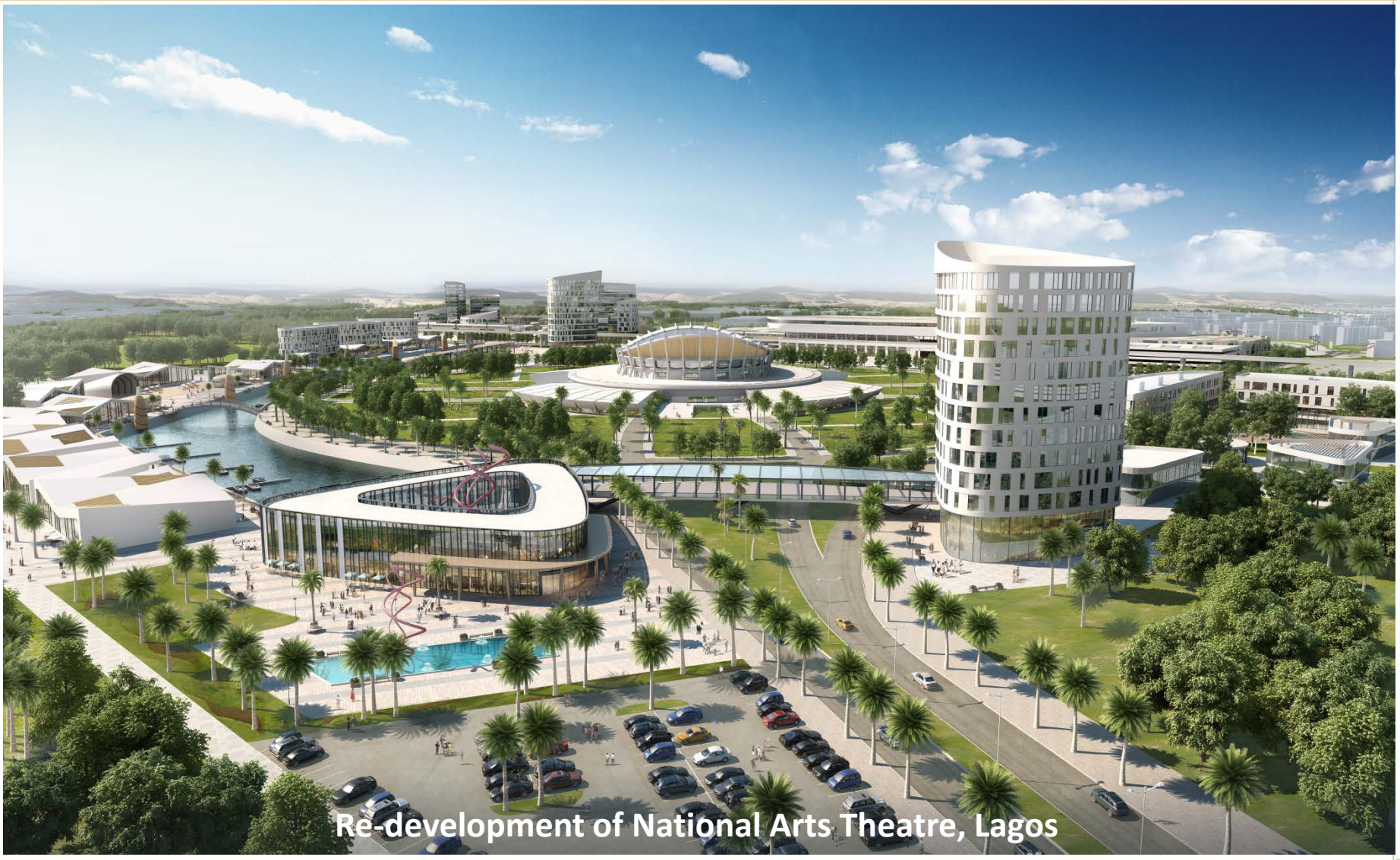
PPP Project Opportunities in Nigeria

Flagship PPP Project - National Theatre - Lagos

- Development of 65 hectares fallow land around the 134 hectares theatre complex. Completed in 1976 for FESTAC in 1977.

Re-development of National Arts Theatre, Lagos

Nigeria Entertainment City - Lagos



Road PPP Opportunities

1. 2nd Niger Bridge
2. Lagos Ibadan Expressway
3. Rehabilitation and upgrade of 368 Km Shagamu-Benin-Asaba Expressway
4. Reconstruction and Upgrade of Abuja – Kaduna – Kano Dual Carriage Road
5. Reconstruction and Full Dualization of Ibadan – Ilorin - Tegina - Kaduna Highway
6. Reconstruction and Upgrade of Enugu to Port Harcourt Expressway
7. Reconstruction and Upgrade of East West Road
8. Reconstruction and Upgrade of Aba-Ikot Ekpene - Calabar

The 2nd Niger Bridge – Artist Impression

Ports and ICD Opportunities

- Kirikiri Port Lighter Terminal I & II, Lagos.
- Lekki Deep Water Port
- Ibom and Bakassi Deepwater Ports
- Badagry Deep Sea Port
- Ontisha Inland Container Depot (ICD), Anambra State
- Asaba Container Freight Station (CFS), Delta State
- Nnewi Inland Container Depot, Anambra State
- Gombe CFS, Gombe State
- Dagbolu Inland Container Depot, Osun State
- Lolo Inland Container Depot, Kebbi State

Rail, Aviation and FCT Oppurtunities

- NRC Narrow Guage
- New Standard Guage Lines
- Abuja Light Rail Lots 1A and 3
- Bus Rapid Transit for Cities
- Lagos, Abuja, Kano and Port Harcourt Airports
- Aircraft MRO Facility
- NNPC Pipeline and Depot Syatem

INFRASTRUCTURE CONCESSION REGULATORY COMMISSION

Plot 1270 Ayangba Street, Near FCDA Headquarters,

Area 11, Garki, Abuja – Federal Capital City.

Phone: +234 9-4604900, E-mail: info@icrc.gov.ng

Website: www.icrc.gov.ng