

# Setting up a National Oil Company in Timor Leste

*Dili, 28th - 29th May, 2009*



## Natural Gas For Sustainable Development

*The Trinidad & Tobago Approach  
to  
Local Value-Add & Capacity Development*

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- **Trinidad & Tobago - CONTEXT**
- **The T&T Vision**
  - **Energy Vision 2020**
    - Energy Sector's role in national development
- **Policy Development**
- **Strategies**
- **Summary & Lessons Learnt**

# Trinidad & Tobago - Location

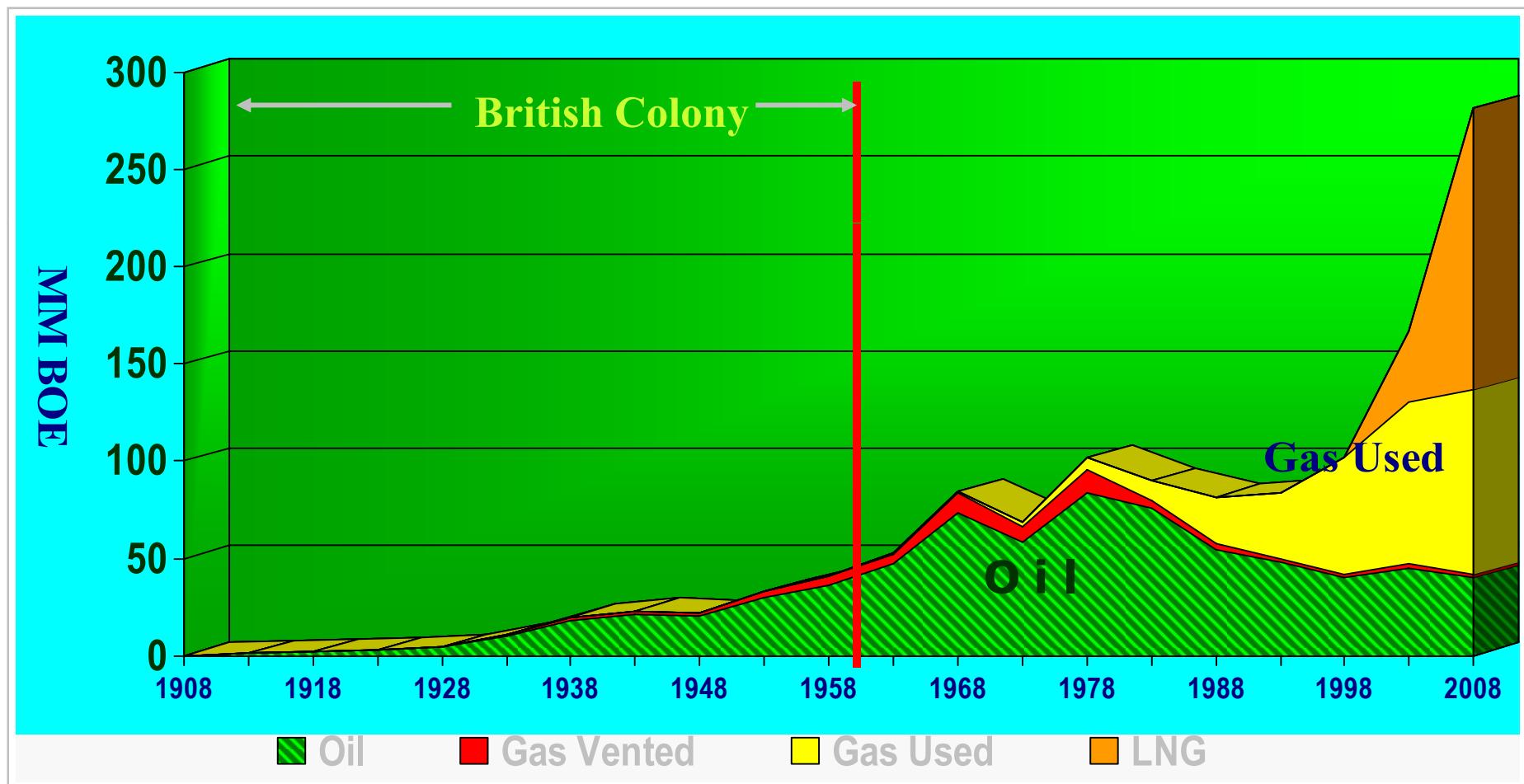


## Country Comparisons (CIA World Factbook)

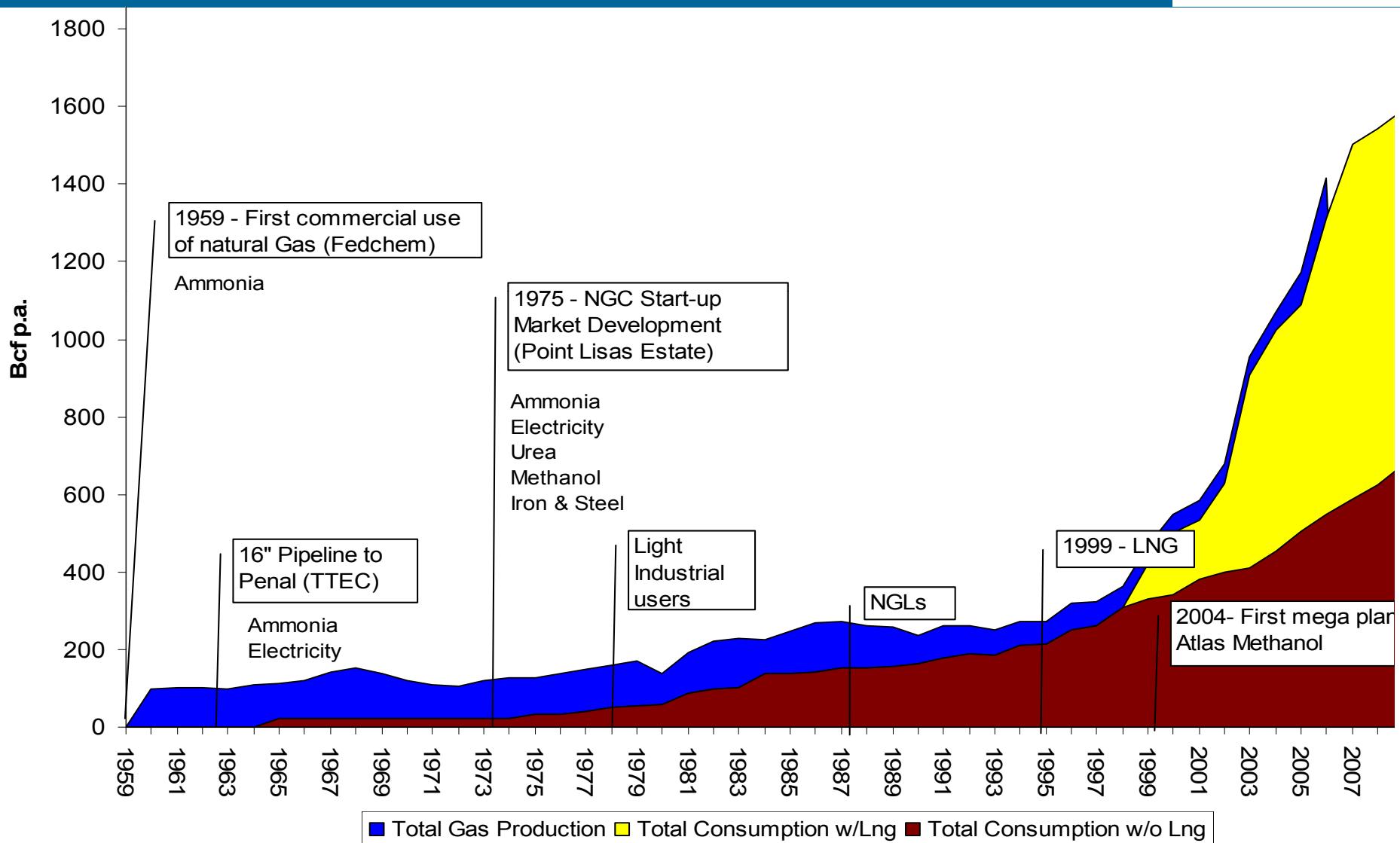
	<b>Timor Leste</b>	<b>Trinidad &amp; Tobago</b>
<b>Population</b>	<b>1,131,612</b>	<b>1,229,953</b>
<b>Land size (sq km)</b>	<b>15,410</b>	<b>5,128</b>
<b>Independence</b>	<b>28 November 1975 (20 May, 2002)</b>	<b>31 August 1962</b>
<b>History of Oil Production</b>	<b>5 years</b>	<b>100 years</b>
<b>Oil Production bbl/day (2007 est.)</b>	<b>78,480</b>	<b>163,300</b>
<b>Oil - proved reserves (bbl, Jan 08, est.)</b>	<b>553,800,000</b>	<b>728,300,000</b>
<b>Natural Gas Production cu m (2007 est.)</b>	<b>0</b>	<b>39 billion</b>
<b>Natural gas Proven reserves billion cu m</b>	<b>200 (1 January 2006 est.)</b>	<b>481.3 (1 January 2008 est.)</b>
<b>GDP per Capita (2008 est.)</b>	<b>\$2,400</b>	<b>\$18,600</b>

# T & T Oil and Gas Production 1908 - 2008

*Barrels of Oil Equivalent (millions per year)*



# Overview of Natural Gas Usage in T&T

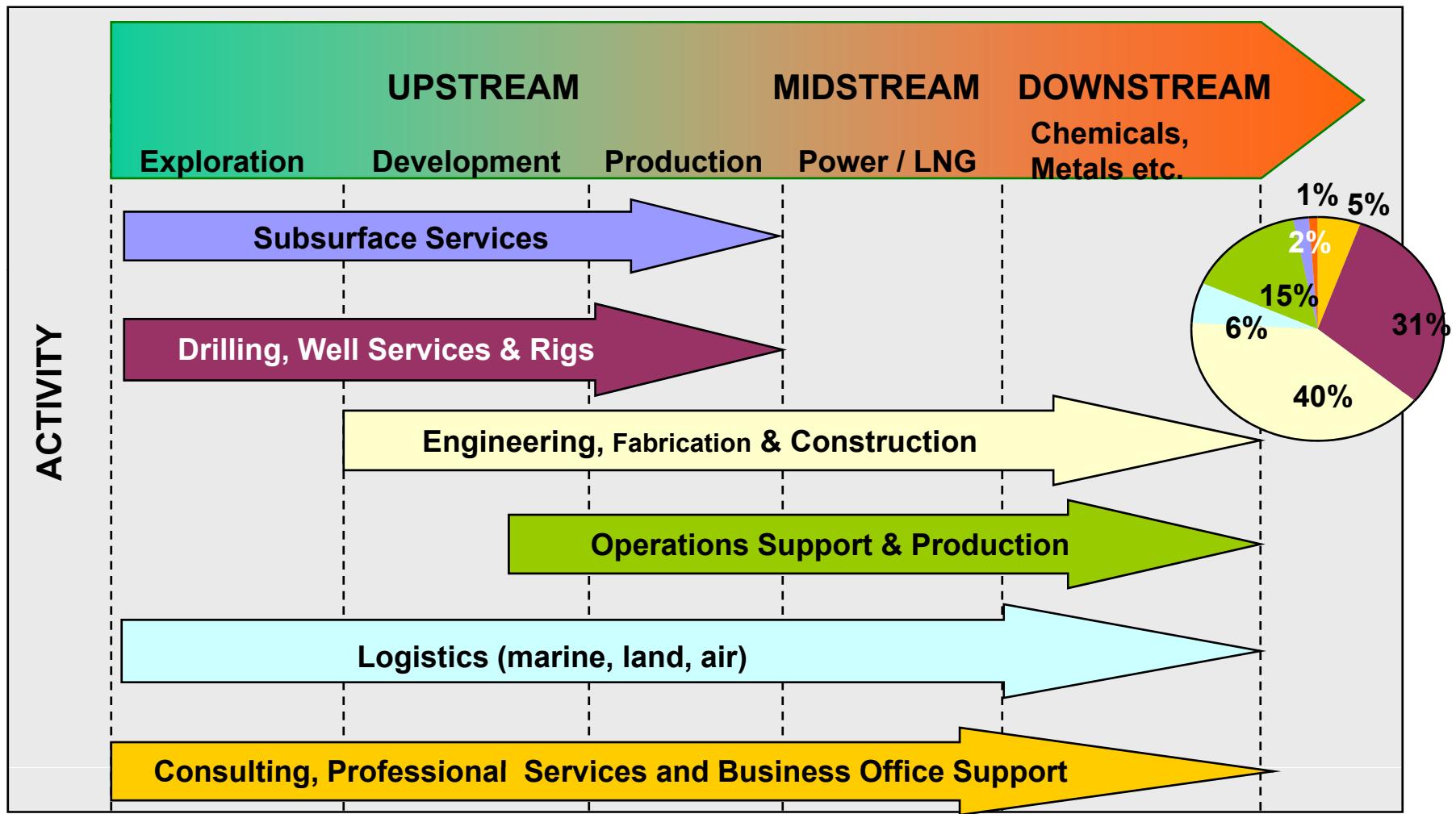


- **The Premise**
  - **Past experiences**
    - **The “Plantation Economy”**
    - **“Resource Curse”**
  - **We have another chance to get it right**
    - **For ourselves**
    - **For future generations**

- **Where we started this time...**
  - **E&P**
    - **Big natural gas discoveries (1990s)**
    - **Major field developments**
    - **Increasing production and operations**
  - **Downstream**
    - **Natural gas industry growth**
      - **LNG**
      - **Chemicals**
      - **Metals**
  - **Services Growth**

# Major Upstream Third Party Service sub-sectors & spend

- Some Services enable transfer to other sub-sectors and industries



# Each upstream major activity contains a plethora of services and activities....

UPSTREAM ACTIVITY	3 <sup>rd</sup> PARTY SERVICES
<b>SUBSURFACE SERVICES</b>	<ul style="list-style-type: none"> <li>• Seismic acquisition and processing</li> <li>• Seismic data interpretation (exploration, development and production)</li> <li>• Geological services (well site, core &amp; sample handling &amp; storage, paleontology, etc.)</li> </ul>
<b>DRILLING: WELL SERVICES &amp; RIGS</b>	<ul style="list-style-type: none"> <li>• Rigs           <ul style="list-style-type: none"> <li>• Floating, jack-up, platform, land, completions, tender assist</li> </ul> </li> <li>• Drilling services           <ul style="list-style-type: none"> <li>• Fluids, waste management, cementing, mud logging, drilling equipment rental,, pressure pumping services</li> </ul> </li> <li>• Wells equipment and services           <ul style="list-style-type: none"> <li>• Wellheads (surface and sub sea), casing, tubing, rock bits, down hole pumps, completion equipment &amp; services</li> </ul> </li> </ul>
<b>ENGINEERING &amp; CONSTRUCTION</b>	<ul style="list-style-type: none"> <li>• Engineering           <ul style="list-style-type: none"> <li>• Preliminary/conceptual , detailed design, civil engineering (well pads, site preparation), engineering modifications</li> </ul> </li> <li>• Major Equipment acquisition/rental           <ul style="list-style-type: none"> <li>• Compressors, turbines, generators, pumps, valves</li> </ul> </li> <li>• Sub sea           <ul style="list-style-type: none"> <li>• Manifolds and templates, control systems, umbilical</li> </ul> </li> <li>• Pipelines           <ul style="list-style-type: none"> <li>• line pipe (steel., alloy etc)</li> </ul> </li> <li>• Construction           <ul style="list-style-type: none"> <li>• Hook up, commissioning, de-commissioning</li> </ul> </li> <li>• Offshore and onshore installation           <ul style="list-style-type: none"> <li>• Offshore flow line and pipeline</li> </ul> </li> </ul>

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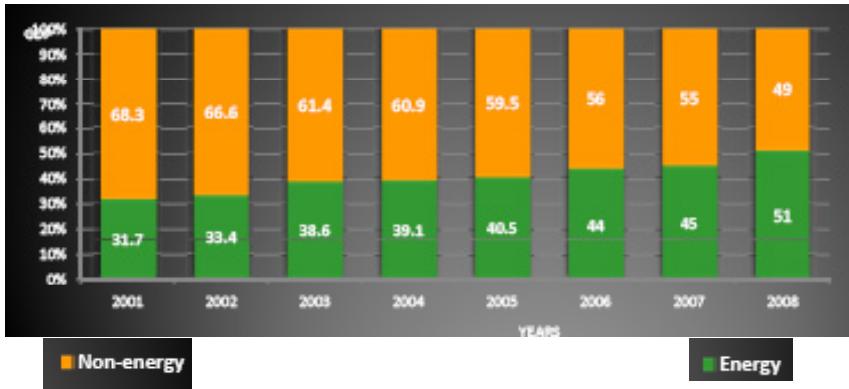
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## To Be a Developed Country by 2020

### 5 Pillars of Development:

1. Innovative People
2. Competitive Businesses
3. Caring Society
4. Governing Effectively
5. Infrastructure & Environment

# The Energy Sector Plays a Major Role in T&T's Development



The energy industry is the primary driver of economic activity in T&T



Trinidad and Tobago has embarked on an ambitious and far-reaching programme to achieve widespread and sustainable development by the year 2020.

Because of its scale and scope, the energy sector will continue to be a major driver for economic development, while providing a platform for significant development of:

- People,
- Enterprises
- The Capital market and
- Innovation and Technology

These are key ingredients in achieving the “Vision 2020” goals.

This allows T&T an opportunity to use the energy sector as an agent for sustainable development and diversification.

# Energy Sector Vision & Goals

## Vision

- To be an integrated and fully developed energy sector that is a **key driver of a sustainable and flourishing local and regional economy** while attaining **global competitiveness** in all of its sub-sectors by **2020**.

## Goals

1. Optimise exploration and production (*pace & volume*)
2. Maximise wealth creation, capture and distribution
3. Development of human capital
4. Robust & respected institutions and regulatory framework
5. Transparent governance
6. Competitive and sustainable local energy companies
7. Industrial development and diversification to high value-add service industries
8. Protection and enhancement of the natural environment
9. Sustainable investment in social capital

# LOCAL CONTENT POLICY - Value Maximization



**Government & Country can Maximize Value from Resources through:**

## **1. Fiscal Measures**

- Taxation and Royalty Policies
- Government Expenditure

## **2. Non Fiscal Measures**

- Local Participation
- Local Content

## **3. Local Capability Development**

- transfer of technology and know-how form international partners
- capabilities that can be transferred to other sectors
- cluster developments with other industries that have a natural synergy with the energy sector (e.g. ITC, Education & Maritime)

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# Increasing Local Value-Add – A Trinidad & Tobago Framework



## Local Value-Add building blocks:

### Human Capability –

- employment, training, development and internationalisation (making globally competitive) of nationals

### Enterprise Capability –

- improving the value-add, know-how and innovation capability of local businesses and institutions

### Capital markets –

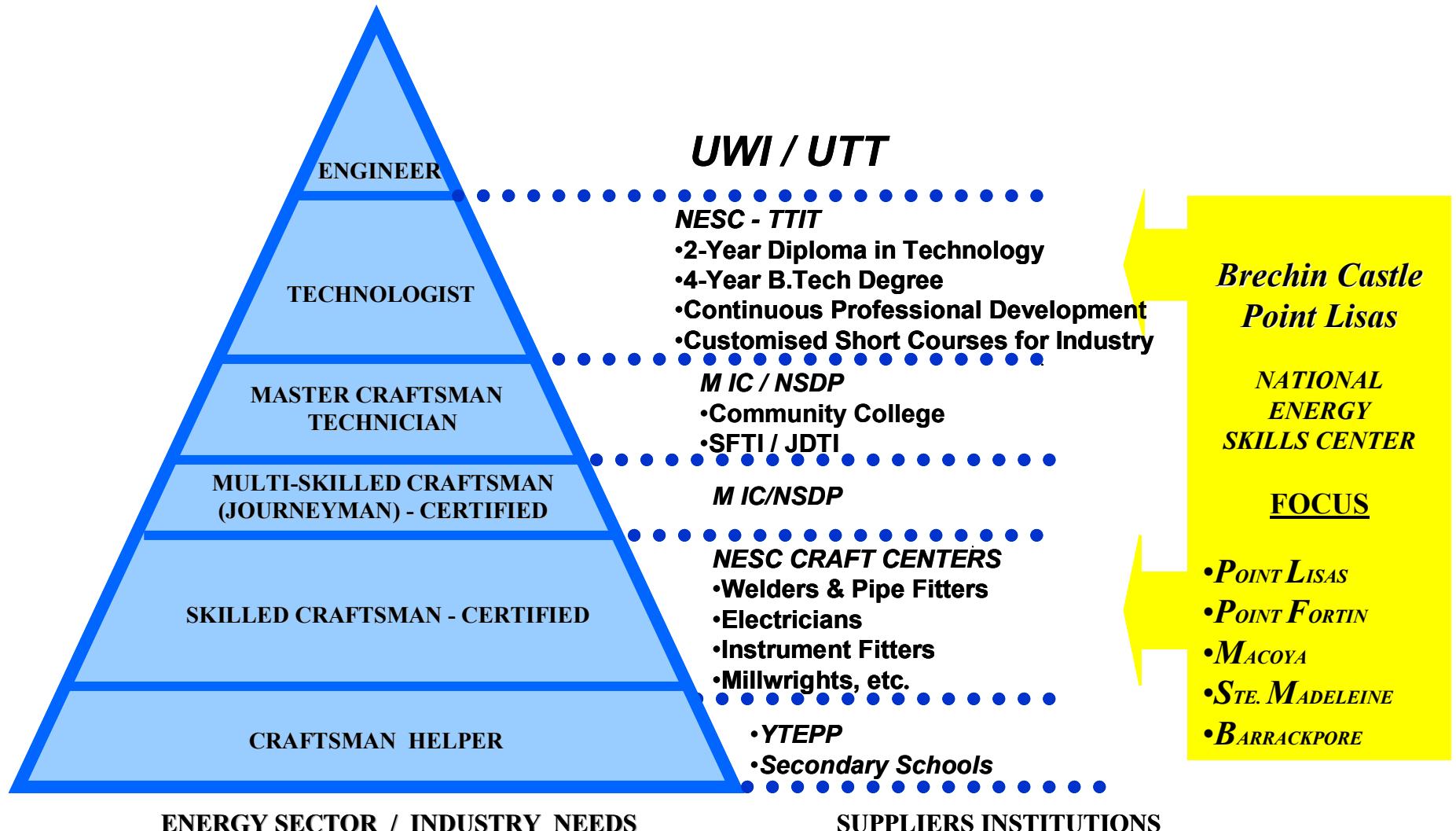
- encouraging the growth and use of the local capital market

Moving up the pyramid enhances sustainability through the creation of transferable capability

## People Development

- **Capacity building**
  - Universities – UWI/UTT
  - Technical schools
  - High school programmes
  - Primary school curriculum
  - Pre-school
- **Community engagement & enhancement**
  - Media training
  - Civil Society Network

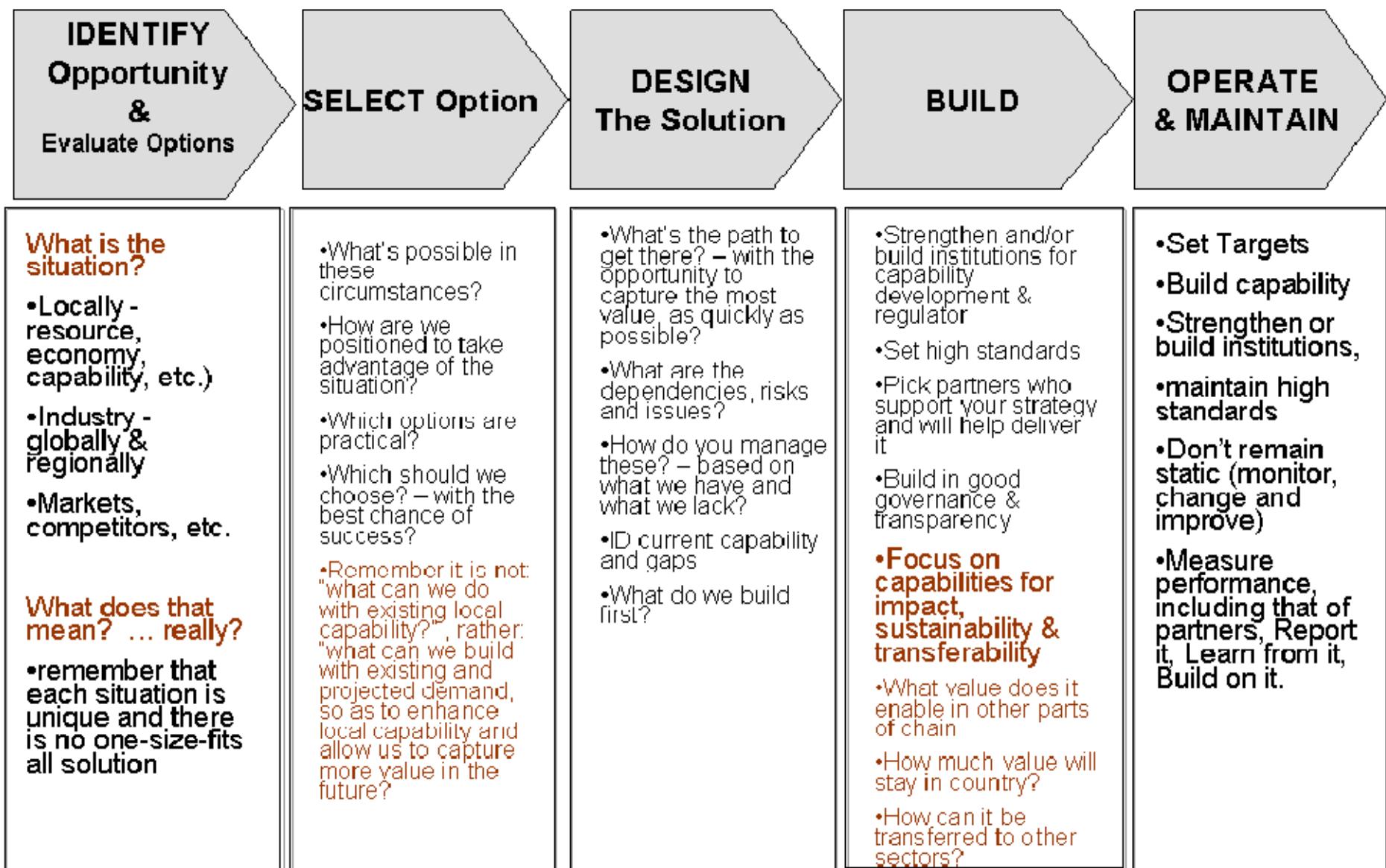
# **Training and Skills Development Programmes and Institutions - From the bottom up**



## Enterprise Development

- Local Content & Participation
- Business Support
  - UWI ALJ Graduate School of Business
  - Centre for Energy Enterprise Development
- Diversification
  - Deepening & broadening in energy
    - Downstream vs. LNG
    - Oil vs. Natural Gas
    - Other value chain activities (shipping, trading, distribution, etc.)
  - Building other sectors
    - From energy (e.g. services, training)
    - Clusters alongside energy (e.g. ITC, maritime)
  - Innovation & Technology
    - UTT
    - eTecK
    - Downstream Industries w. technology focus

# The Approach

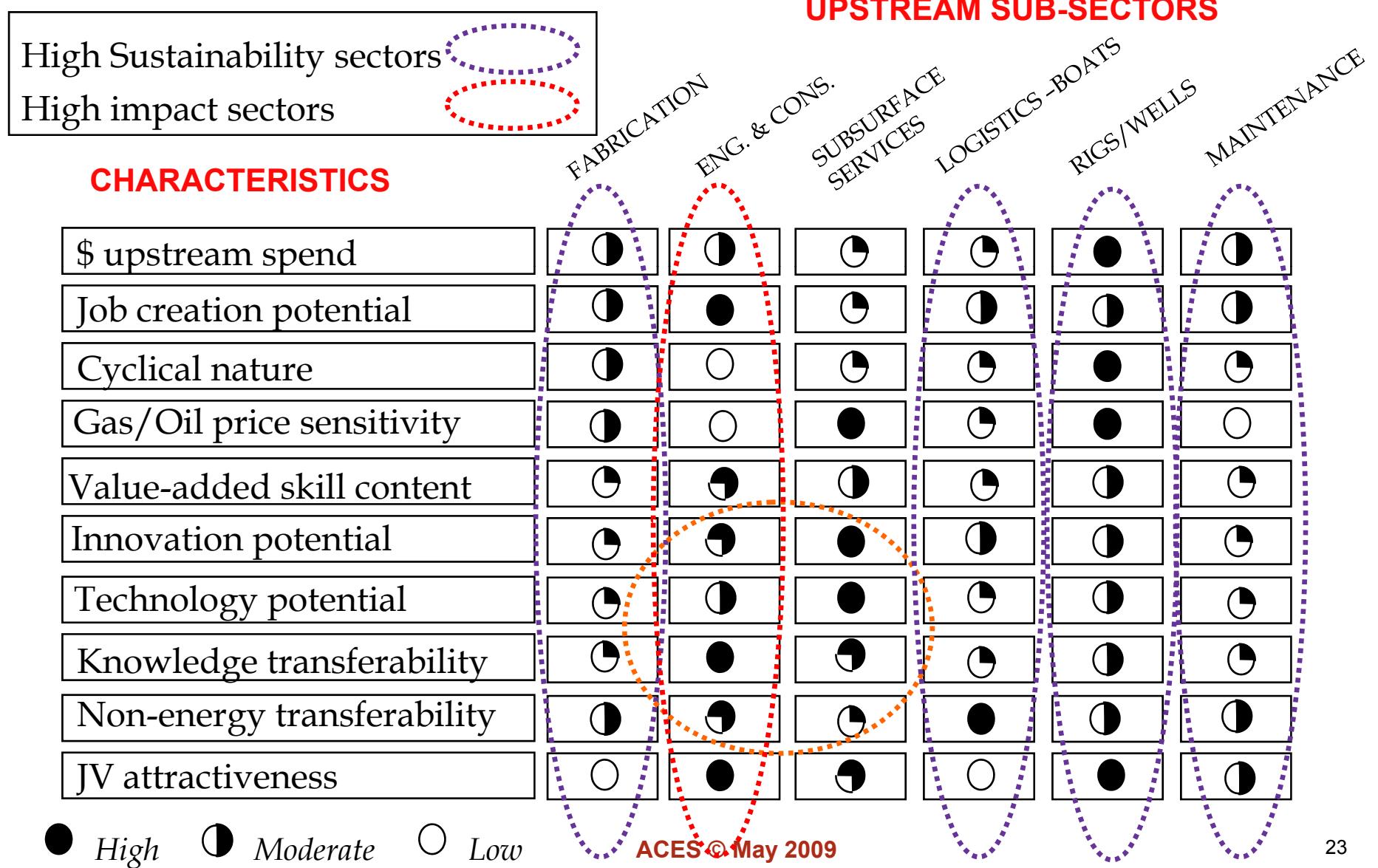


# Local Content and Participation Policy Statement

To achieve the goal of maximum local content and participation in the energy sector, all participants will be **selected, engaged and managed** in a manner that:

1. Identifies **WHERE** to enable local value added opportunity capture, by
  - selecting specific goods and services for **focusing** efforts
2. Determines **HOW** to enable delivery of maximum local value-added by:
  - Managing the **pace and scheduling**
  - Targeting **in-country activities**
  - Giving preference,
    1. **locally owned, controlled and financed enterprises,**
    2. then to those that demonstrate a **clear culture, commitment and capacity for maximizing local value-added,**
  - **Focusing** on improving local *skills, ... and wealth capture and distribution,*
3. Ensures **DELIVERY** of Maximum Local Value Added by:
  - **Setting targets**
  - **Measuring and reporting**

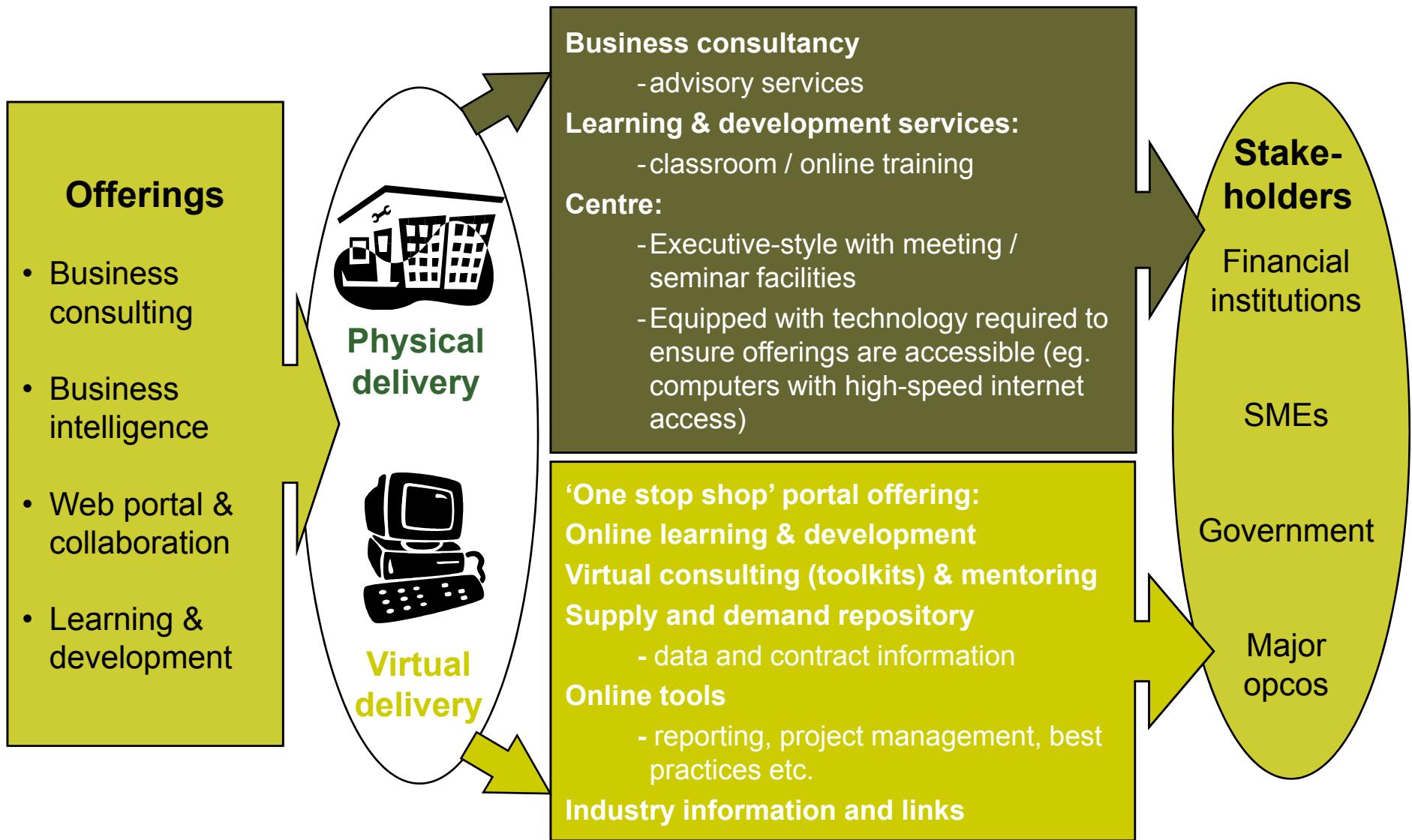
Fabrication, engineering and construction and drilling/well services are upstream activities which have high potential for broadly achieving LC&P multiple aims



# Diversification

- New Products, based on:
  - Metals (Al, Steel)
  - Chemicals
  - Power
- Deepening the Value Chain
  - More in country value add
    - Higher Value Add Products
  - Participating in the Value Chain Outside of TT
- Developing New Sectors
  - Maritime
  - Technology
  - Education
- Developing Institutional Capability

# CEED Centre for Energy Enterprise Development



## Capital Market/ Revenue Stabilisation

- **Funds –**
  - Private Equity & Mutual
  - Stabilisation & Heritage
- **Trading & Distribution**
  - TTLNG

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## How to Best Manage the Resource?

### Action Sequence for Value Capture from and Good Governance of the resource:

#### 1. Define the intent

- What is the **Vision** of the nation - arising from the resource
- What are the **Values** you apply in making sure that, in getting value from the resource, we do not destroy those things that you hold dear.

#### 2. Craft the Policy

- the guiding principles

#### 3. Codify it - Legislation to mandate how stakeholders behave

- a mechanism for enforcing policies
- how to contract and regulate the players

# How to Best Manage the Resource?

## Action Sequence for Good Governance of the resource:

1. Define the intent
    - What do we want from the resource?
      - The Vision of the nation as a result of benefiting from the resource
      - What are those things that we hold dear and which will guide our choices and actions?
        - The Values we apply in our actions to make sure that, in maximising value from the resource, we do not destroy those things that we hold dear.
2. Craft the Policy
    - the guiding principles by which we derive the value we seek.
  3. Codify it - Legislation
    - mandates how we behave in delivering this value by creating a mechanism for enforcing policies –
    - Frames how we contract and regulate the players in the industry

## 4. Develop Strategies

- The roadmap that we create to take up from where we are to where we want to go
- Identifies priorities

## 5. Plans & Actions

- Competitive Bidding Orders,
- Direct selection, etc.

## 6. Execute!

- Select Partner(s)
- Negotiate deal
- Contract it
- Manage it

## Oversight -

- compliance management, audit, reporting, benchmarking, continuous improvement.

# Implementation – Framework for Action

## Essential Pre-Conditions:

- Clarity and consensus on the Vision
- Commitment of agencies critical to implementation

## Critical Success Factors:

- Political will and leadership
- Clarity, communication and consistent application of policy
- Communication and feedback on implementation effort
- Effective data collection and analysis
- Maximum participation of locals
- Empowered and effective oversight institutions
- Collaboration and constancy of behaviour across state agencies
- **Maximum participation of civil society**

## Learnings:

Setting up a fair and realistic local content policy, adapted to the existing skills base is a necessary, but not sufficient condition.



- Have a very high level champion
- Think Strategically, Act Practically
  - Analyse, Analyse, Analyse
  - Focus on services
  - Disaggregate
  - Be Selective, based on strategic value
  - Engage early in the life cycle and contract for it (do not make it optional)
  - See Capability Development as an investment
  - Take a business-like & business-friendly approach - It should be desirable, but achievable
  - “Do it in Country” first. “ Do it with locals”, will come next.

## Learnings:

Setting up a fair and realistic local content policy, adapted to the existing skills base is a necessary, but not sufficient condition.



- The question to be asked:
  - is not: “what can we do with existing local capability?”
  - Rather: “what can we build with existing and projected demand, so as to enhance local capability and allow us to capture more value in the future?”
- ID current capability and gaps
  - Set Targets
  - Build capability
    - strengthen or build institutions,
    - set and maintain high standards
    - Don’t remain static (monitor, change and improve)
- Regulate local content and knowledge and technology transfer – it doesn’t work if it’s an option to the IOCs and International service companies.
- Pick partners who support your strategy and will help deliver it
- Measure performance, Report it, Learn from it, Build on it.