



THE VOICE OF CONSULTING ENGINEERS

## Eastern Cape – PE Presidential Visit

# Sustaining Consulting Engineering is Key to Growing the Economy

**Abe Thela**  
13 May 2014

- ✓ 2013 theme “Sustainability is Everyone’s Business”
- ✓ **Sustainability Indicators:** education, economic and political certainty, job creation, eradication of corruption, and responsible development
- ✓ CESA Sustainability Guideline Document and Reporting Process Checklist
- ✓ CESA Code of Conduct
  - Quality Management System (QMS)
  - Business Integrity Management System (BIMS)

## **“Sustaining Consulting Engineering is Key to Growing the Economy”**

Creation of an environment for implementation of NDP and practice of consulting engineering

- ✓ 2014 Presidential Theme Content:
  - SA Socio – Economic Context
  - National Development Plan
  - Role of Consulting Engineering in the NDP
  - What should Government be doing differently?

- ✓ SA is a Democratic Developmental State
  - Previous Initiatives: RDP, ASGISA, GEAR, NGP, etc.
- ✓ Achievements:
  - Economic growth (without creating jobs)
  - Growth in infrastructure investment:
    - Access to services
    - Mega infrastructure projects
  - **Growth of the CE sector:**

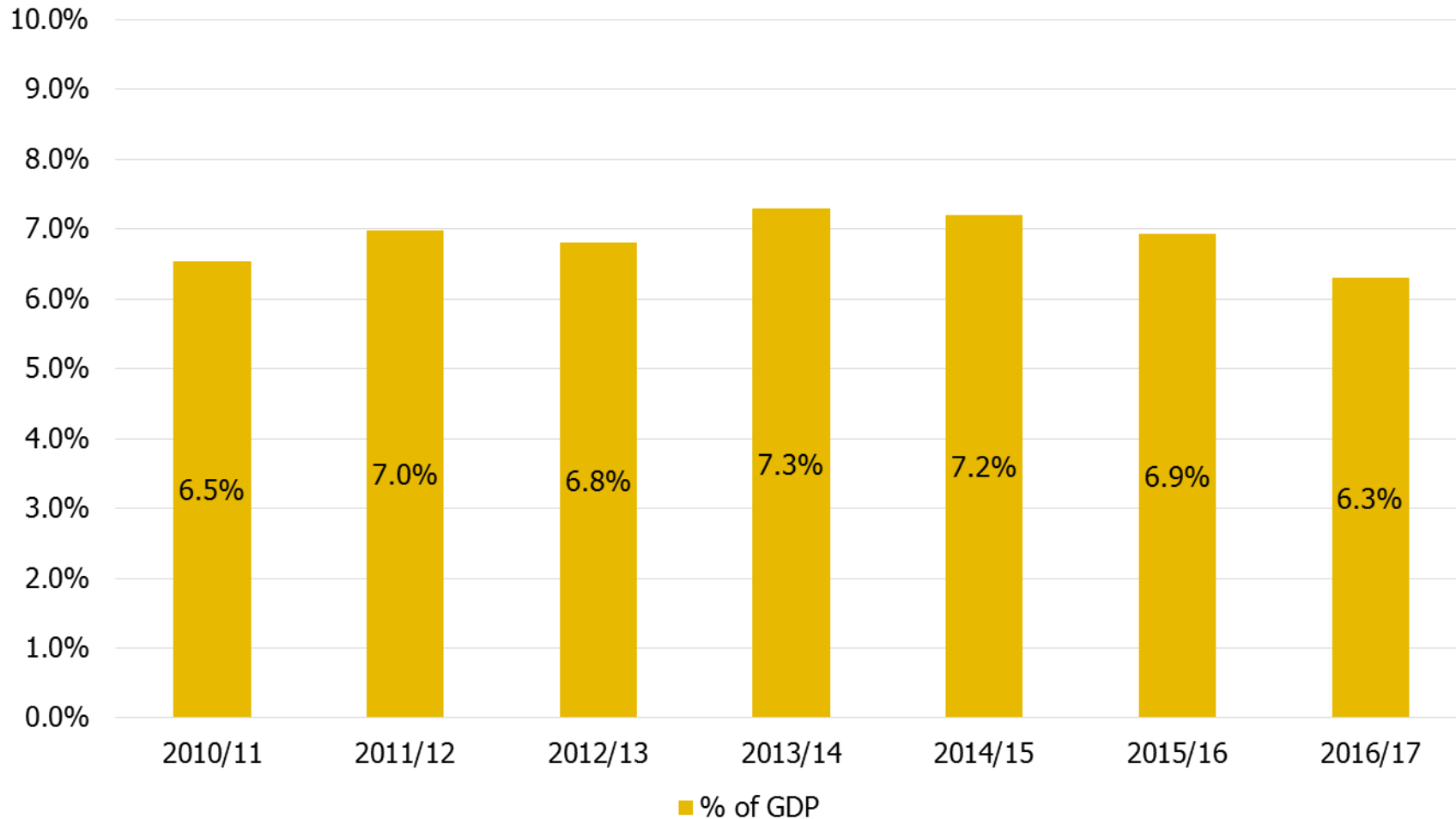
	2004	2013
Employment	12,600	24,360
Turnover	R4.6 billion	24.5 billion

## ✓ Overarching triple challenges

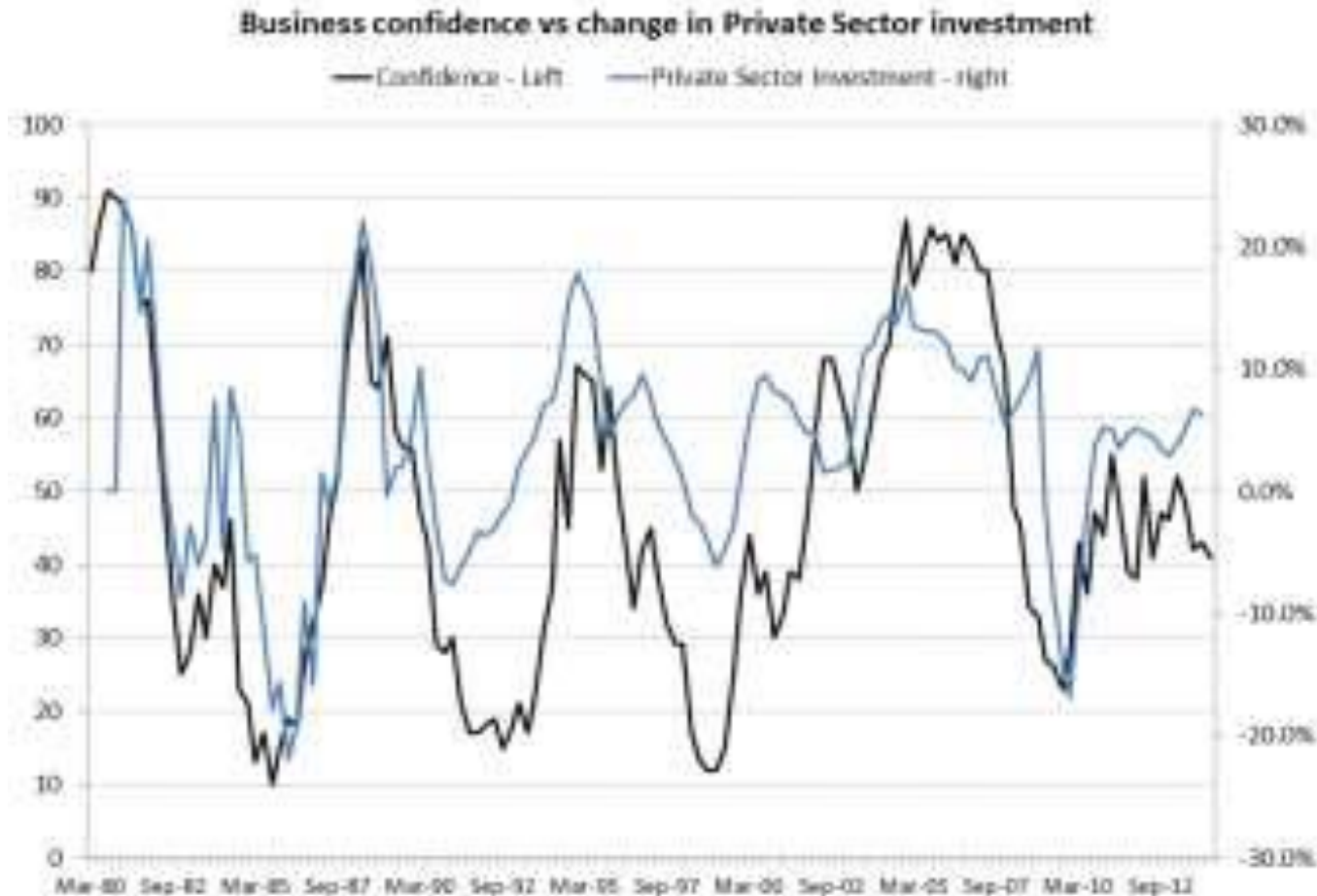
- unemployment – over 25%
- poverty 48% below poverty line
- inequality
  - Richest 20% earning 70% of national income
  - Poorest 20% earning 2,3% of national income

## ✓ Lower economic growth

## Inadequate infrastructure allocations

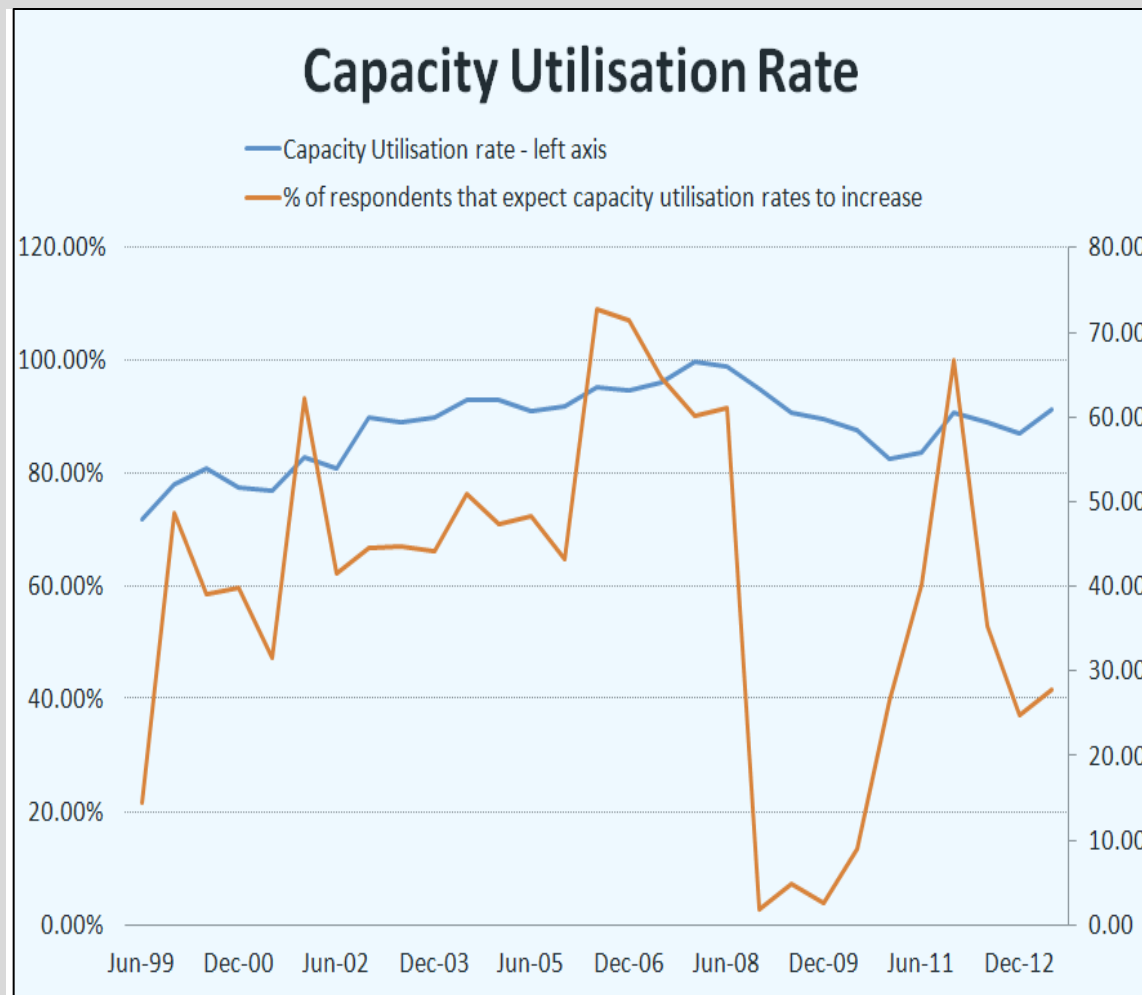


## Business Confidence – Below 50 level





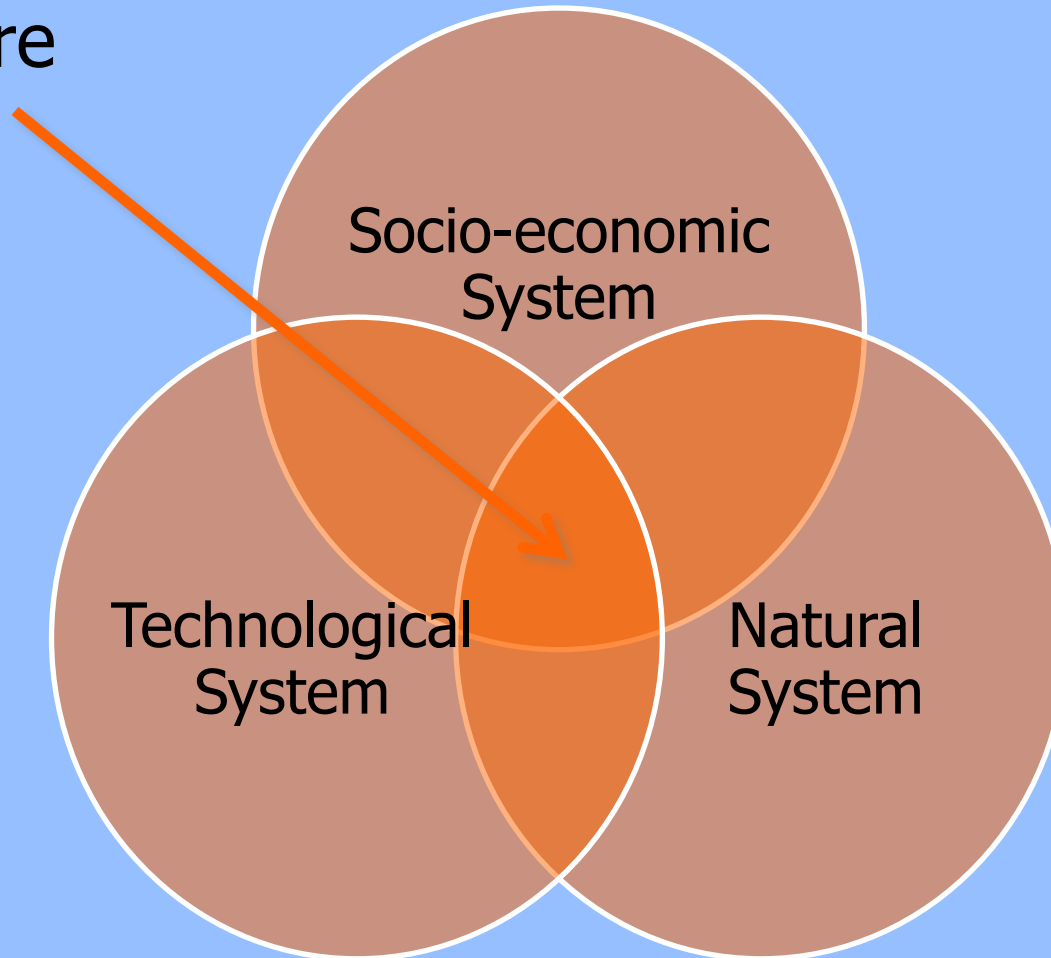
## Capacity Utilisation 91%



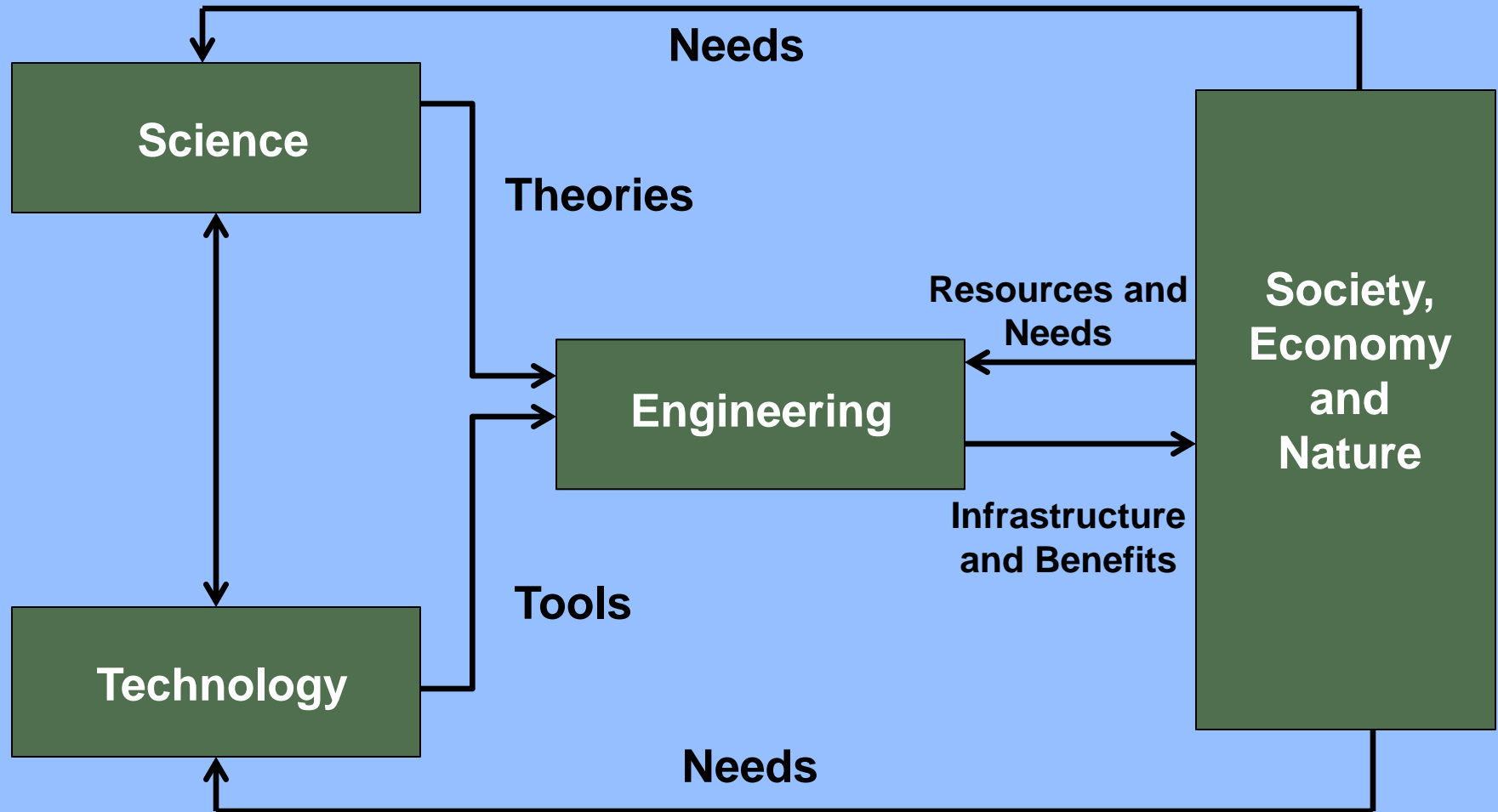
- ✓ Policy instrument to Develop SA Economy
  - Decrease unemployment from 25% to 6%
  - Eliminate inequity
  - Triple economy by 2030
- ✓ Infrastructure Development – Key to socio – economic development
  - Social Infrastructure
  - Economic Infrastructure
- ✓ National Infrastructure Plan (NIP) – 18 Strategic Integrated Projects (SIPs)
- ✓ Supported by:
  - Presidential Infrastructure Commission (PICC)
  - Infrastructure Bill
  - Committed government spending

- ✓ Government Budgeted Infrastructure spending
  - R847 billion in next 3 years
  - Expected growth of 4% per year < construction cost
  - Existing and new projects
  - Implementing agents: SOE's and government departments
  - < NDP expenditure target: R1.1 trillion

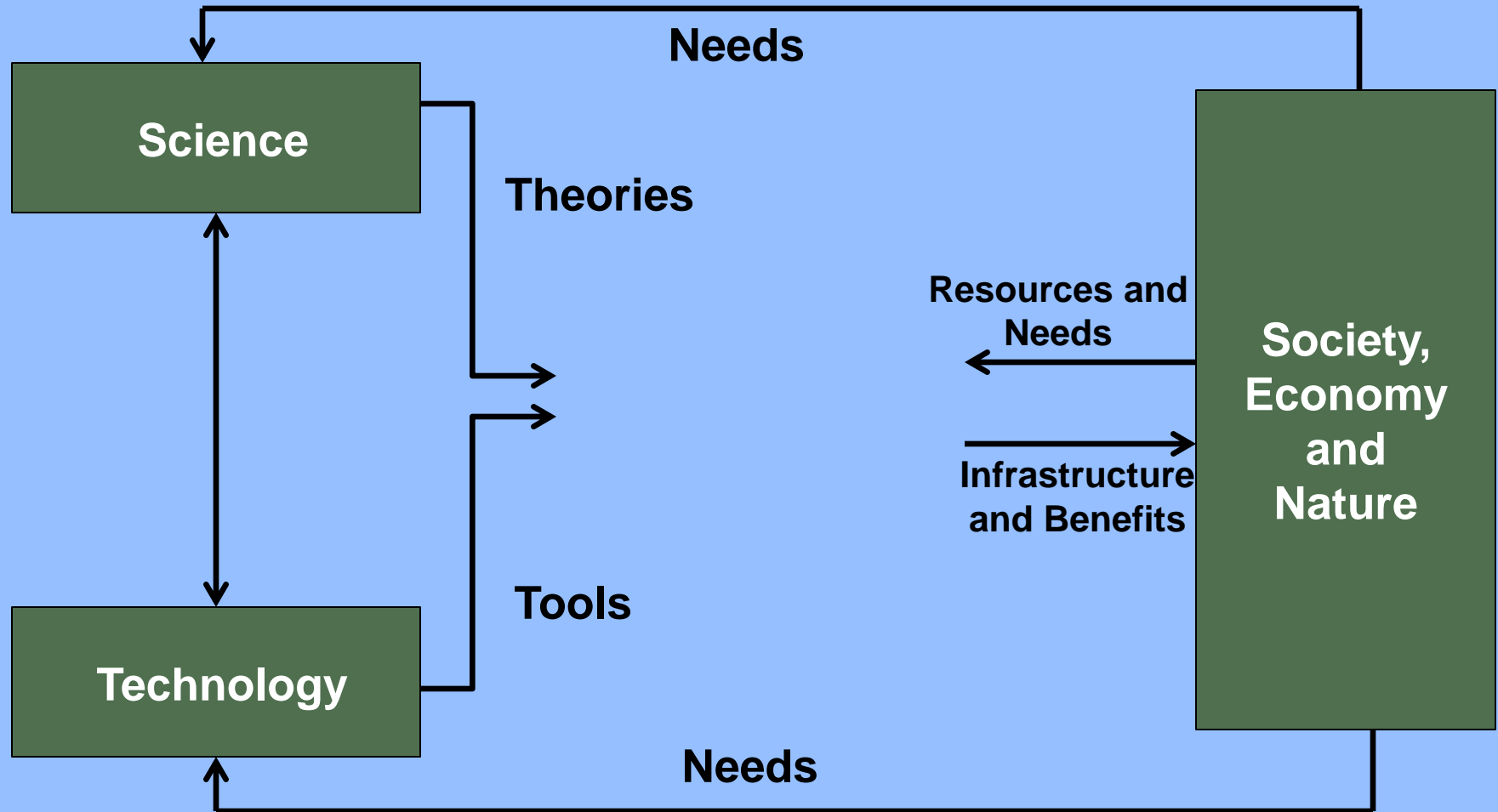
Infrastructure  
Systems



# Role of Consulting Engineering



# Role of Consulting Engineering



- ✓ Consulting Engineers:
  - Provide independent advice to clients
  - Technical advise in the procurement of contractors
  - Design and supervision of construction work
  - Facilities management services
  - Services for the safe decommissioning of old infrastructure
  - Transfer of skills and knowledge to clients
- ✓ The role of “**Trusted Advisor**”
- ✓ **Are we?**

- ✓ Consulting Engineers – Contributing to the NDP objectives:
  - Generates employment opportunities for millions of unskilled, semi-skilled and skilled workers
  - Improves the quality of life of citizens - impacts positively on inequity
  - Contributes to economic growth:
    - Stimulates the development of other economic sectors
    - Attracts foreign investment



- ✓ Is this role adequately recognised by clients who employ consulting engineering services?
- ✓ **No**
- ✓ Persistent Challenges:
  - Regulatory
  - Institutional

# Regulatory challenges?

- Procurement practices
- Access to work opportunities by small and emerging CE firms
- International competition
- Consolidated / joint BBBEE scorecard requirement
- Scope versus fixed term appointments

## Procurement Practices

- ✓ Current Procurement –
  - Price and BBBEE
  - Functionality and Quality – only minimum pre-qualification threshold

**“Is price the appropriate basis for competing for consulting engineering services?”**
- ✓ Reduces consulting engineering to a commodity which is demand driven
- ✓ Compromises the ability of the profession to:
  - innovate,
  - train staff and
  - attract young engineers to the profession.

- ✓ Relegates relationship from “**Trusted Advisor**” status to “**contracting**”
- ✓ Associated problems common in contracting:
  - Scope creep,
  - Variation orders, etc.
- ✓ Reduced quality of service
- ✓ Results in client dissatisfactions

**Extract from recent CESA interaction with the City of Tshwane:**

**“..... Fees on completion of services have also been deviating from original tendered pricing by multiples of up to 2 or 3 which is unacceptably higher than the best practice limit of 20% variance from budget.”**

## **What should be the basis for Procuring Consulting Engineering Services?**

- ✓ Constitutional Imperative – equitable, transparent, fair, competitive and cost effective
- ✓ Aim: to procure on best possible terms
- ✓ Optimise the total project life cycle costs
- ✓ Consulting engineering:
  - dictates how infrastructure is constructed and maintained
  - impacts on construction and maintenance costs.

- ✓ International Best Practice – Qualifications Based Selection (QBS)
  - Quality and Competence
  - Project scope developed jointly
  - Services required to develop scope mutually agreed
  - Negotiate equitable fee
- ✓ Advantage:
  - Reinforces “**Trusted Advisor**” status of consulting engineer
  - Deployment of adequate resources
  - Innovate and add value
  - Savings for taxpayer and community

- Interim: Reintroduce quality as part of the total procurement points calculation alongside price and BBBEE – cidb Method 4
- Separation of procurement of BEPs from the procurement of general goods and services
- Conduct a comprehensive review of the existing procurement system:
  - Impact on infrastructure provision
  - Sustainability of the consulting engineering sector
  - Develop QBS procurement system incorporating B-BBEE requirements



- Government engagements in progress:
  - Treasury – Individual role players
  - Infrastructure Task Team – Combined business and government

## Access to work opportunities by emerging and small firms

- ✓ Outcry over lack of access to large projects
- ✓ Significant portion of membership of CESA – 80%
- ✓ Vehicle for empowerment in the sector
- ✓ Lack of resources, expertise and experience
- ✓ Proposal: Targeted procurement procedures for participation in large projects
- ✓ **Set goals:** fair, equitable and cost effective
- ✓ **Process:** streamlined and monitored

## International competition

- ✓ **Proposal: To have built environment professional services designated as local**
- ✓ **Advantages:**
  - Preferencing of local companies over international companies without a presence in South Africa
  - Contributes to the growth & development of the sector
  - Contributes to local employment
- ✓ **Process:**
  - Application being reworked for submission to Department of Trade and Industry

- ✓ Requirement for a consolidated/joint BBBEE scorecard for unincorporated Joint Ventures / consortium / trusts:
  - Discourage formation of JVs
  - JVs crucial for skills transfer
  - Add a cost burden to the sector

- ✓ Proposed formula / calculator for consolidated JV B-BBEE scorecard:

$$JV_{B-BBEE \text{ level}} = M_{\text{points(a)}} \times M_{\text{interest(b)}} + M_{\text{points(b)}} \times M_{\text{interest(b)}} + \text{etc.}$$

Where:

$JV_{B-BBEE \text{ level}}$  is the joint venture consolidated B-BBEE scorecard

$M_{\text{points (a, b, c, etc.)}}$  is the B-BBEE points of each member

$M_{\text{interest (a, b, c, etc.)}}$  is the percentage (%) interest of the members in the joint venture

- ✓ Calculated at bid evaluation stage

## **Scope versus fixed term appointments for consulting engineering services**

- ✓ **Municipal Finance Management Act:**
  - Fixed 3 year term appointments
  - Increase costs
  - Delays infrastructure implementation
- ✓ **Proposal:**
  - Consulting Engineers be appointed based on scope of work their services are required for; and
  - The Municipal Finance Management Act is revised accordingly.

# Institutional Challenges?

- Lack of Capacity
- Corruption
- Erratic Infrastructure Investment
- Education

## Lack of Capacity

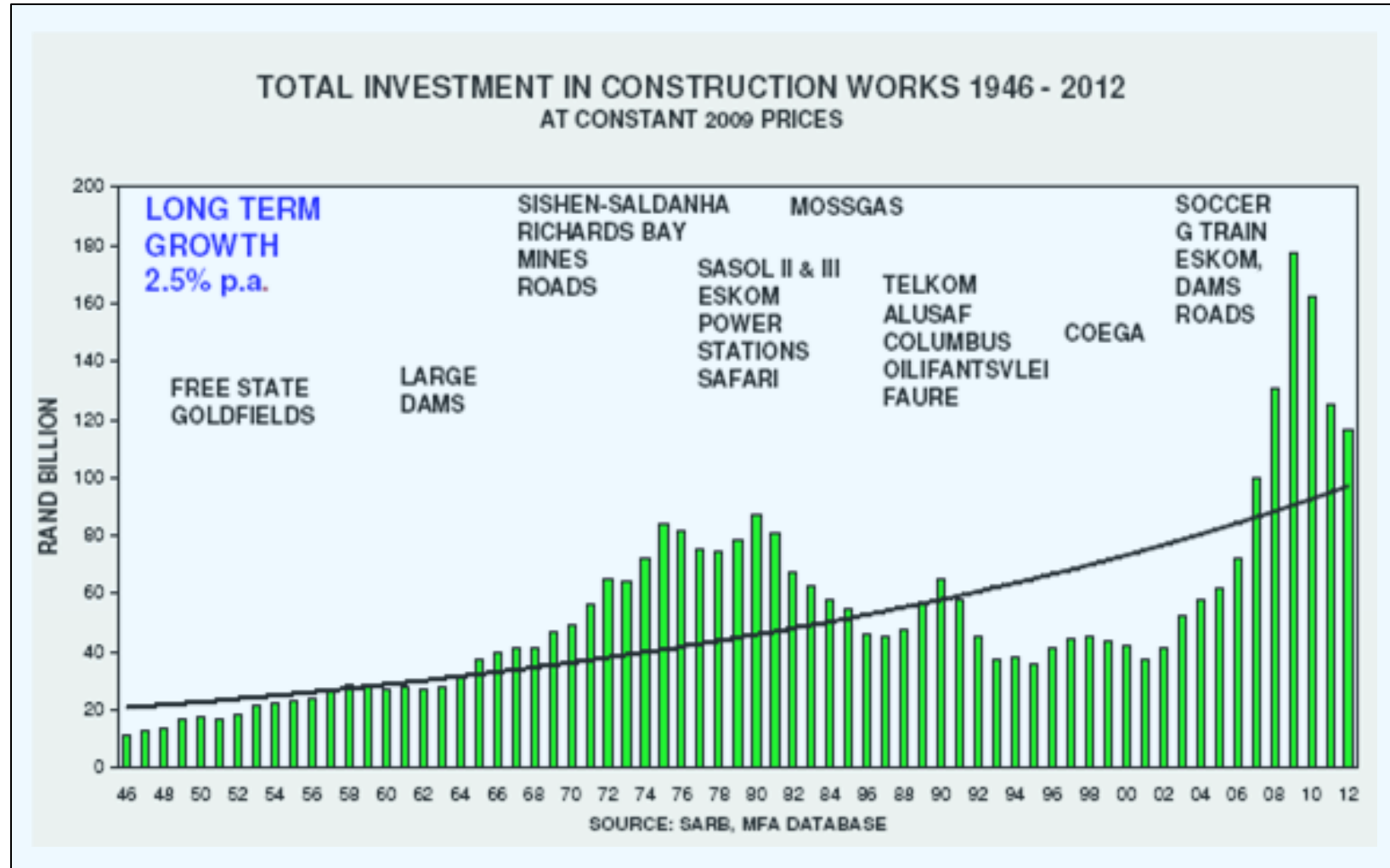
- ✓ Inability to:
  - create consistent project pipeline
  - Adequately define project scope
  - appropriately procure
  - Manage & monitor contracts
- ✓ Persistent infrastructure budget underspending
- ✓ What is needed is **political will**:
  - Employ appropriately qualified people
  - Improve working environment
- ✓ Interim:
  - Secondment & PMO
  - Use retired engineers



## Corruption

- ✓ Still rampant – 2012/13 financial year:
  - R2bn – wasteful expenditure
  - R26,4bn – irregular spending
  - R2,3bn – unauthorised spending
- ✓ Hinders development, depletes of public purse, distorts markets and hinders investment
- ✓ Welcome - Public Administration Management Bill
- ✓ CESA committed to fight corruption through litigation fund and partnerships

# Erratic Infrastructure Investment



## Cyclical Nature of Infrastructure Investment

- ✓ Creates uncertainty:
  - Skills development
  - Resources planning & development
  - Business investment
- Consulting Engineering Sector's Plea:  
**“Uninterrupted and growing infrastructure spending  
for the NDP period”**

## Education

- ✓ Schools infrastructure programme.
- ✓ Must be complemented by improved quality of classroom teaching and overall school management.
- ✓ Low success rate at universities
- ✓ Public education crisis:
  - poor teacher supply and provisioning norms
  - poor quality of teaching and its impact on learning.

## Education (Cont.)

- ✓ Current initiatives:
  - Implemented - compulsory grade R learning (long term)
- ✓ Competency tests for matric markers.
- ✓ Assessment teachers' performance in the classroom.
- ✓ Performance related pay.
- ✓ Teaching – 'career of choice' – pay salaries to attract top achievers

**NDP will never materialise without the expertise of the Consulting Engineering sector – this industry needs to be supported and developed by:**

- ✓ Implementing NDP by increasing infrastructure spend to 10% of GDP to 2030
- ✓ Creating a conducive environment for private sector infrastructure investment
- ✓ Improving procurement and regulatory environment
- ✓ Creating technical capacity and capability within Government to procure services
- ✓ Improving quality of education in particular maths and science



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Questions Welcome

Thank you for  
attending

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