



THE VOICE OF CONSULTING ENGINEERING

WALKING TOGETHER TOWARDS A SUSTAINABLE FUTURE

IMESA: 27 August 2010

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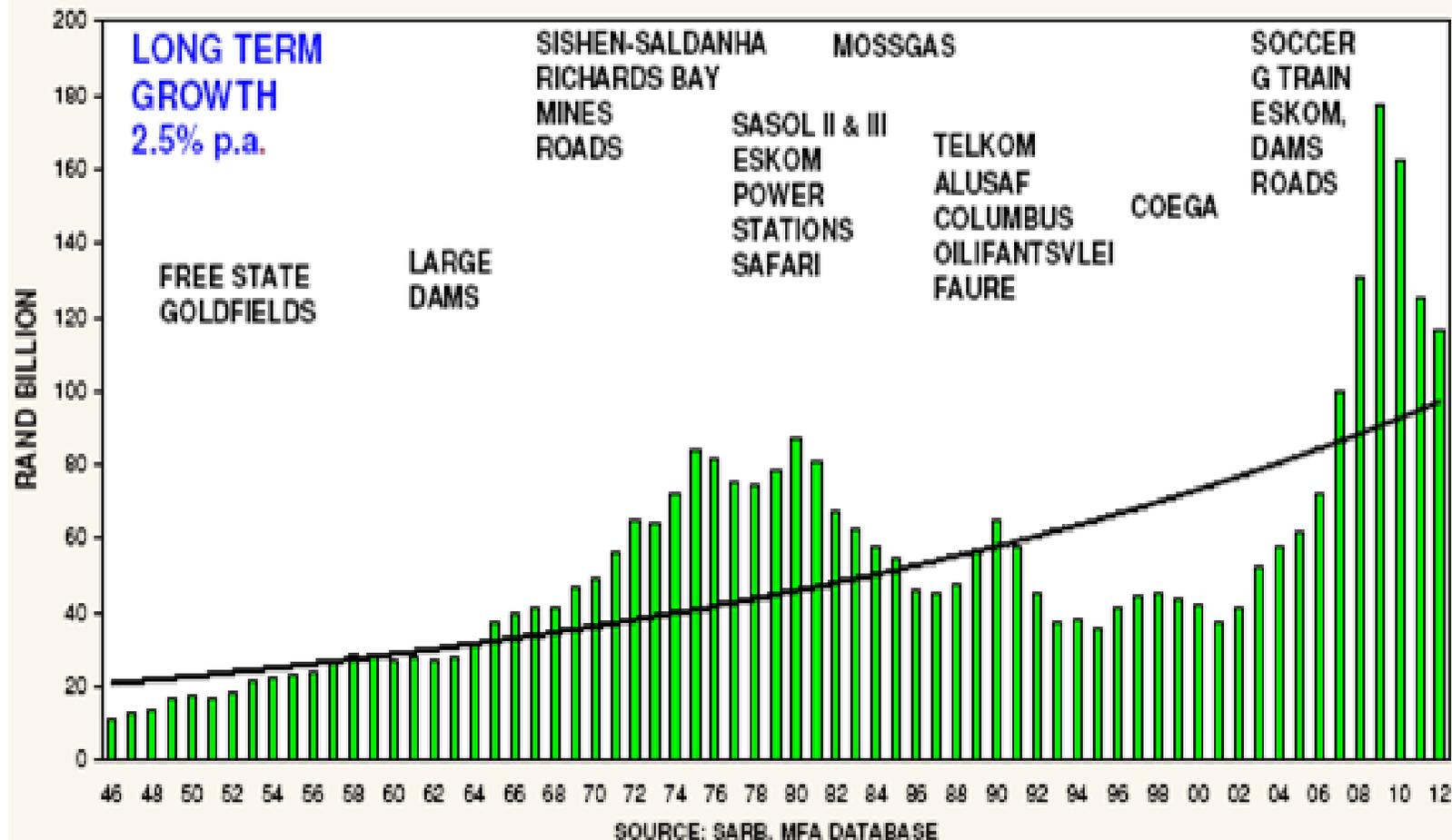
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CONTEXT: CONSTRUCTION ECONOMY

- GLOBAL RECESSION 2008 – 2009
- POLOKWANE December 2008
 - Record Years for the SA Construction Industry
- OUTLOOK 2010 +
 - Workload dropping (> 30% y/y.....17% since January)
 - Tendering increasingly competitive
 - Forecasts “flat” for next 2 years
 - Increased competition from abroad

TOTAL INVESTMENT IN CONSTRUCTION WORKS 1946 - 2012 AT CONSTANT 2009 PRICES





COMPETITION

- “Standard Bank signed agreement with China Railway Group”
- “Discovery buys 20% in Chinese Health Insurer”
- “SA looks to China for Infrastructure lift”

ENGINEERING PROFESSIONALS & STATE OF BUILT ENVIRONMENT

■ Burning Bridges

- Technical Management Experience in Public Sector

SUPPLY OF ENGINEERS

- Brazil 350 citizens per engineer
- Malaysia 500 citizens per engineer
- South Africa 3000 citizens per engineer

TECHNICAL PROFESSIONALS IN GOVERNMENT

■ 1990

- 5 100 Serving 14 Million Citizens(ex “homelands”)
- **1 Government Professional per 2 700 population**
- 40% of Pr Engs

■ 2010

- 1 800 Serving 47 Million Citizens(New R S A)
- **1 Government Professional per 27 000 population**
- 15% of Pr Engs

EMPLOYEES WITH CESA MEMBERS

- 1990 : 12 000 employees
- 2010 : 21 000 employees

TURN AROUND STRATEGY BY COGTA

(COGTA press statement 3 Dec 2009)

- Concern about quality of **decision-making**
- Concern about quality of **appointments**
- Lack of transparent **procurement**
- Poor levels of **financial management**
- Lack of **accountability**
- Undue **political interference**
- Economic conditions

(How long will this take?)

STATE OF BUILT ENVIRONMENT & ENGINEERING PROFESSIONALS

■ Burning Bridges

- Technical Management Experience in Public Sector
- Water & Sanitation

WATER & SANITATION

- Access to water & sanitation improved substantially
- National planning by DWA identifies problem areas
- Implementation incapacity at sub-national level
- Only 30 of 283 municipalities functioning satisfactorily (Ms Sonjica's evidence to parliament)
- Demand could exceed supply (2020)
- Water Quality deteriorating: 3% with Green Drop
- Acid Mine Drainage

STATE OF BUILT ENVIRONMENT & ENGINEERING PROFESSIONALS

■ Burning Bridges

- Technical Management Experience in Public Sector
- Water & Sanitation
- Roads & Transportation

ROADS & TRANSPORTATION

- National Network in good condition
- Provincial Roads & Municipal Streets going to Pot (holes) (Engineering News)
 - Maintain: R200 000 / km
 - Rebuild : R3 million / km
- Start made with public transport investment

ROAD AND TRANSPORT SITUATION

- 1998 to 2008: Good 75% to 30%
: Poor 5% to 33%
- Maintenance backlog : R100 billion
- Investment declined by 1% pa since 1975.
- Every R1 billion invested creates 25 000 jobs

STATE OF BUILT ENVIRONMENT & ENGINEERING PROFESSIONALS

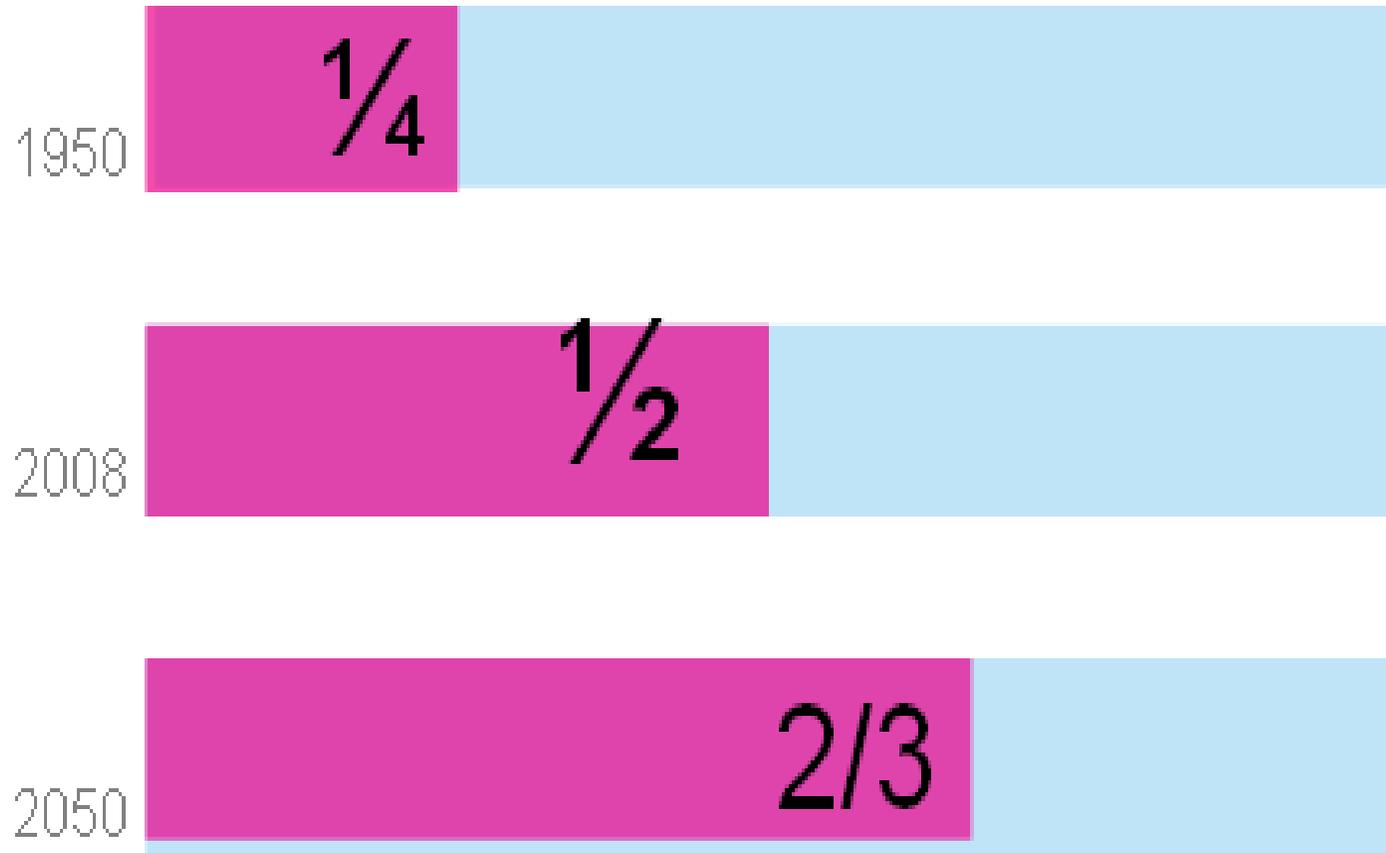
■ Burning Bridges

- Technical Management Experience in Public Sector
- Water & Sanitation
- Roads & Transportation
- Energy (Recent changes)

■ Financial Resources (Not a burning bridge. 3 year infrastructure budget R846 bn)

■ Urbanization Challenges

People living in Cities Globally



PEOPLE LIVING IN SA CITIES

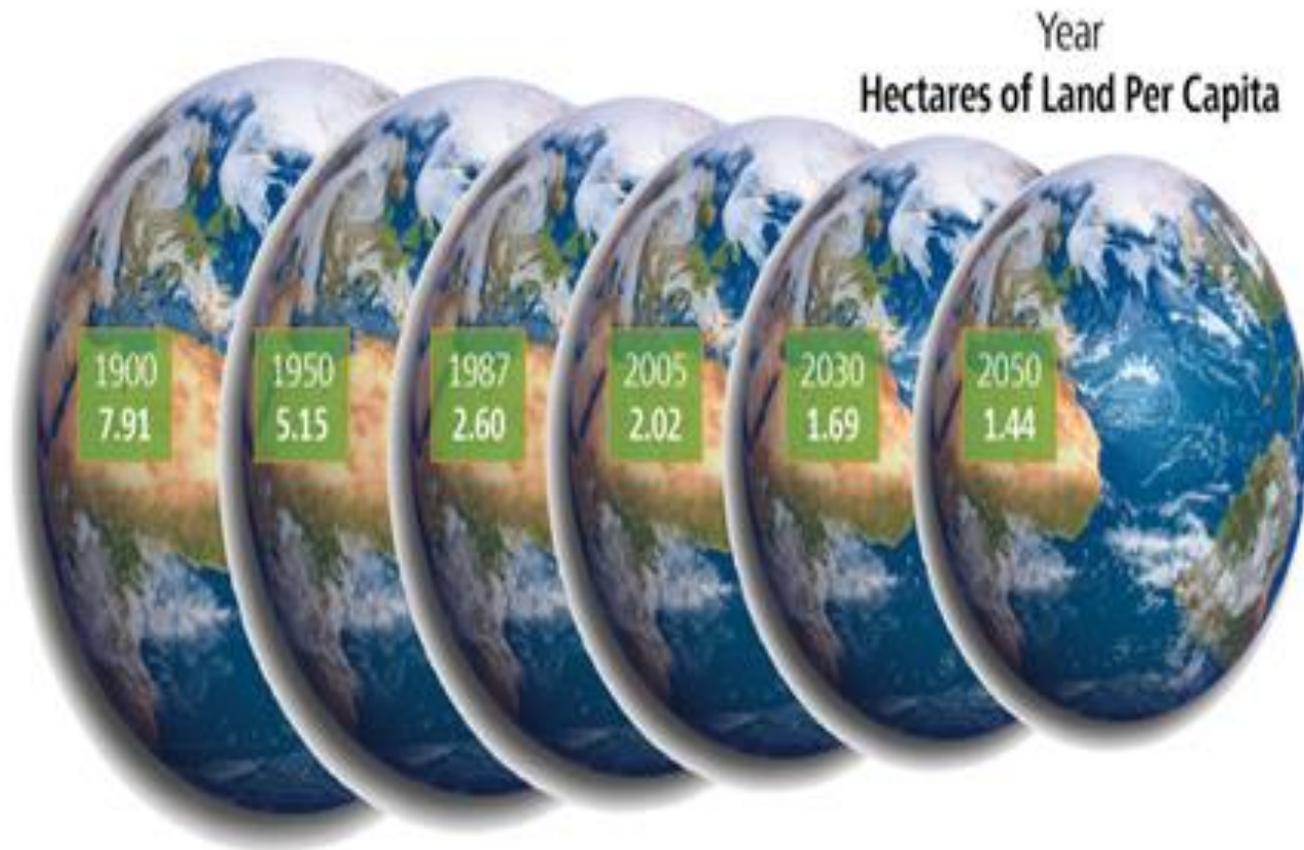
■ 2010

- 30 million

■ 2050

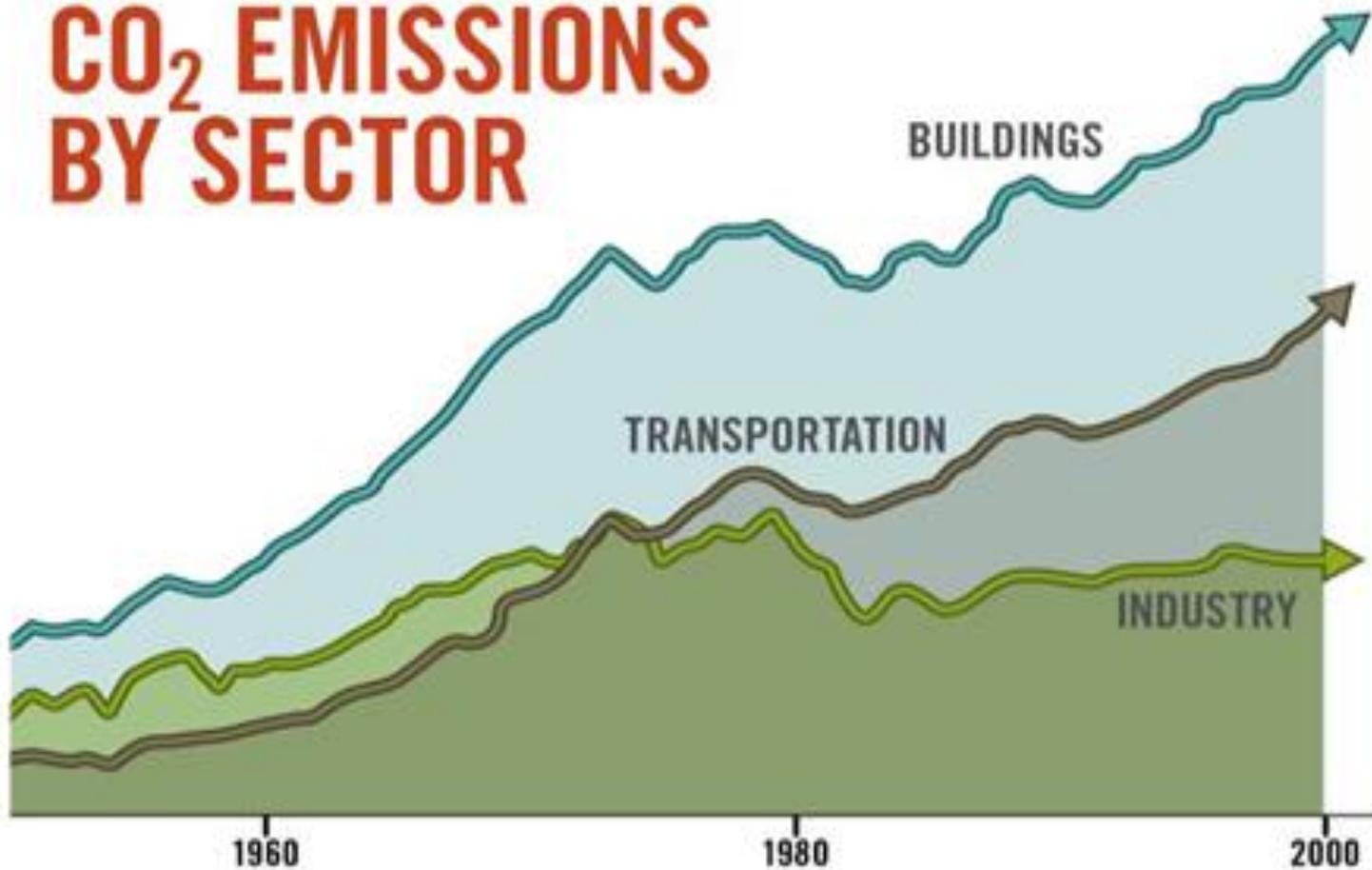
- 45 million

Demand for scarce resources is under increasing pressure



Carbon Emissions

CO₂ EMISSIONS BY SECTOR



SUSTAINABILITY GOAL

'meet the needs of the present without
compromising the ability of future generations
to meet their own needs' (FIDIC 2009)

INITIATIVES TO DATE

(to extinguish the fires)

- ASGISA
- JIPSA
- Project Consolidate (COGTA)
- Siyenza Manje I & II (DBSA)
- EPWP (NDPW)
- Civils Masakheni (SAICE)
- SPAID (Business Trust)
- Neighbourhood Development Grants
- Turn Around Strategy (COGTA)
- Adopt a Town (COGTA)
- Friends of the City
- Good citizen campaign
- Numerous management and monitoring systems and Scorecards

- Are we:
 - Consumed by the current dilemmas and efforts to resolve these ?
 - Turning a blind eye to the major challenges facing the municipal engineer of the future ?
 - Casting our nets wide enough to address the needs of all technical professionals in our industry?

DINOKENG – go to this link

THE SCENARIO TEAM



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DINOKENG DILEMMAS

- “We failed to appreciate and understand how to run a modern democracy
- Leadership across **all sectors** is increasingly self-interested, unethical and unaccountable, lacking clarity and purpose.
- Weak state with declining capacity
- Disengaged citizenry with growing dependence on the state to provide everything”

Solutions?

DINOKENG's 3 SOLUTIONS

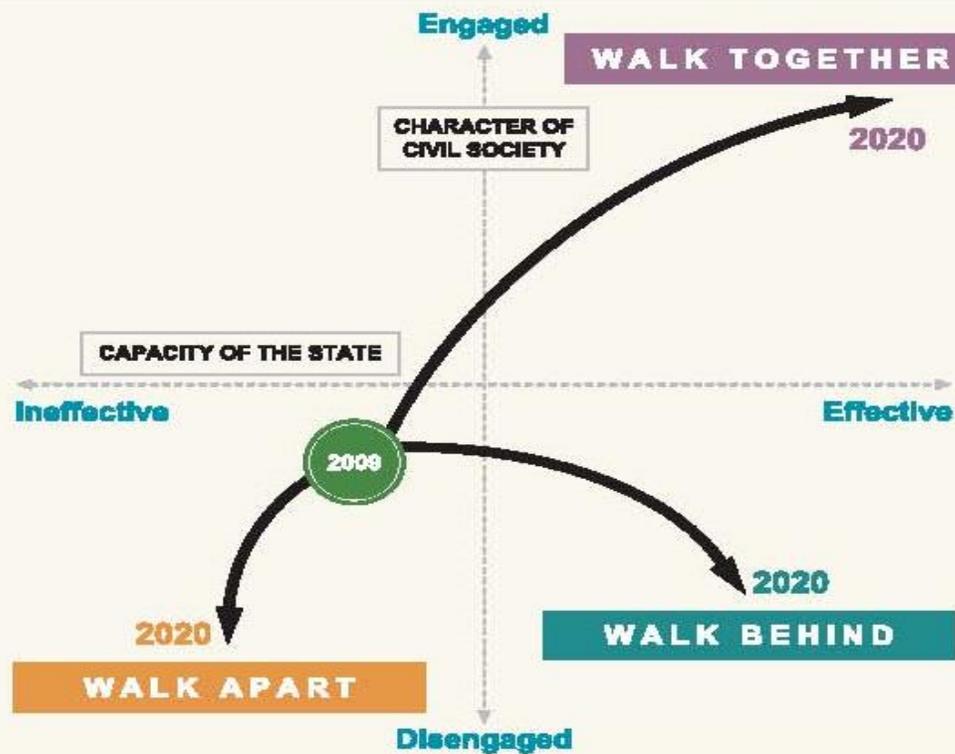
- **LEADERSHIP**

- **LEADERSHIP**

- **LEADERSHIP**

DINOKENG

THE COMPARATIVE PATHS OF THE THREE SCENARIOS



CESA's APPROACH/PHILOSOPHY

- **Walking together towards a sustainable future**

CESA's FOCUS AREAS

■ Infrastructure Development & Maintenance

- Water & Sanitation
- Energy
- Roads & Transportation
- Accommodation (Commercial & Residential)

CESA's FOCUS AREAS

- **Infrastructure Development & Maintenance**
- **Resources** (Sustainability)
 - Human Resources
 - Financial Resources
 - Natural Resources

CESA's FOCUS AREAS

■ Infrastructure

■ Resources

■ Primary Tasks

- **Monitoring** (Business Environment & Member performance)
- **Advocacy** (Decision makers)
- **Capacity Building** (Members and Clients)
- **Enhance business environment for members**

CESA'S STRATEGY AND ACTIONS

■ Advocacy supported by facts

- Lobbying
 - condition of infrastructure
 - alternative delivery mechanisms
- Liaison Committees
- Channel Partners eg BUSA, IMESA, SALGA etc
- Commentary , Media, Panel of Experts, Seminars.

■ Capacitating members and clients

- Business Integrity Guidelines
- Procurement Good practice (tenderpreneurs !!)
- Sustainability Framework Document

CESA'S STRATEGIES AND ACTIONS

(Cont)

- Advocacy supported by facts
- Capacitating members and clients
 - Business Integrity Guidelines
 - Procurement Good Practice
 - Sustainability Framework Document
- Capacity Building: School of Consulting Engineering

SCHOOL OF CONSULTING ENGINEERS

■ 2009

- 1 500 attendees
- 27 subjects

■ 2010

- 30 new subjects
- Candidate Academy
- Business of Consulting Engineering

IN A NUTSHELL

- Private & Public Sector need each other
- Engineers required to address basic needs
- Nurture the our engineering skills
- Resuscitate technical leadership
- Resuscitate technical leadership
- Resuscitate technical leadership

**Walk Together to build a
sustainable RSA (Pty) Ltd**

- **QUESTION: IS THIS POSSIBLE?**

- **ANSWER : DEFINITELY YES !**

- **QUESTION : WHY?**

- Remember 1990 when RSA was a burning bridge?
- Legislative and Regulatory foundations are sound
- In 2010 the issues are on the table, the pressure is there & will and desire are there.
- Eg: Min Sicelo Shiceka's Municipal Systems Amendment Bill
- Soccer World Cup Infrastructure & Management testimony

■ QUESTION : HOW?

- **Provide leadership.** Not only government's task.
- Harness available experienced **human resources.**
- **Depoliticize** the officialdom. (Green shoots)
- Develop, commit to national **infrastructure programme**
- Review infrastructure **delivery mechanisms.** (Green shoots)
- Co-ordinate and **deliver at scale.**
- Enforce **good practice**
- Lobby using appropriate **channels.** (BUSA, AHI)

- **South Africa has 60% unemployment, the highest in Africa**
 - Mike Schussler: “Growth in fixed capital formation will be helpful to create jobs, with **infrastructure**, such as building roads and dams being the best option”
 - Let’s stop talking and analysing; there is **enough to do!**

Thanks for Listening

■ **If you want to walk fast, walk alone**

■ **If you want to walk far, walk together**

■ (African Proverb)