



**“Engineering for Change
The Municipal Engineer & the Changing Environment”**

“Re-Incarnation of the Municipal Engineer”



Naren Bhojaram
CESA President
24 October 2012



Presentation Outline

1. “I wanted to become the City Engineer”
2. Relevance of the topic “Re-Incarnation of the Municipal Engineer”
3. Quo Vadis South Africa - Training
4. Quo Vadis South Africa - Provincial & Municipal Planning
5. Quo Vadis South Africa – National Planning
6. Quo Vadis South Africa – A day in the life of a Municipal Engineer
7. Different outcomes require different approaches
8. Infrastructure Delivery’s biggest stumbling block
9. Structural Changes
10. Policy Changes
11. What do we want for South Africa?
12. Concluding Remarks

1. "I wanted to become the City Engineer"



CITY OF PIETERMARITZBURG

EMPLOYEE NO: 01/01/85 A PAY GRADE: 5 SALARY: 07 PAY PERIOD: CHEQUE

EARNINGS					
GRADE	L.A.	F.R.S.	IS PAYABLE MONTHLY	MONTHS	OTHER
1427.50					

DEDUCTIONS							
P.A.V.E.	U.F.	PROVIDENT	SOUTH	STATE	IRA	RETIRED	OTHER
251.40	7.14			21.33		3.45	

TAX SUMMARY TO DATE							
GRADE	REQUIRE	SUMS	VED	STATE	P.A.V.E.	EMPLOYEE CONTRIBUTION	GF OF DEDS
1427.50			21.33	7.14	251.40		3.45

31 Jan 1985

SALARY ADVICE

PAY DATE	EMPLOYEE NO.	EMPLOYEE NAME	NAME
01/01/85	23	C.E. SEWERAGE	SHOJARAM

COUNCIL'S CONTRIBUTIONS				TOTAL	
EMPLOYEE	ADVANCE	MONTHS	NET PAY	OTHER	NET PAY
4.28	39.62		1427.50		
			283.32		

NET PAY	NET PAY	STATE & ADVANCE	EMPLOYEE	OTHER	NET PAY
1144.18	1427.50			283.32	1144.18

THE CONTENTS OF THIS ENVELOPE MUST BE CAREFULLY EXAMINED IN THE PRESENCE OF THE PAYING OFFICER, AS ERRORS CANNOT AFTERWARDS BE RECTIFIED

1144.18 / month

2. Relevance of the topic “ Re-Incarnation of the Municipal Engineer”

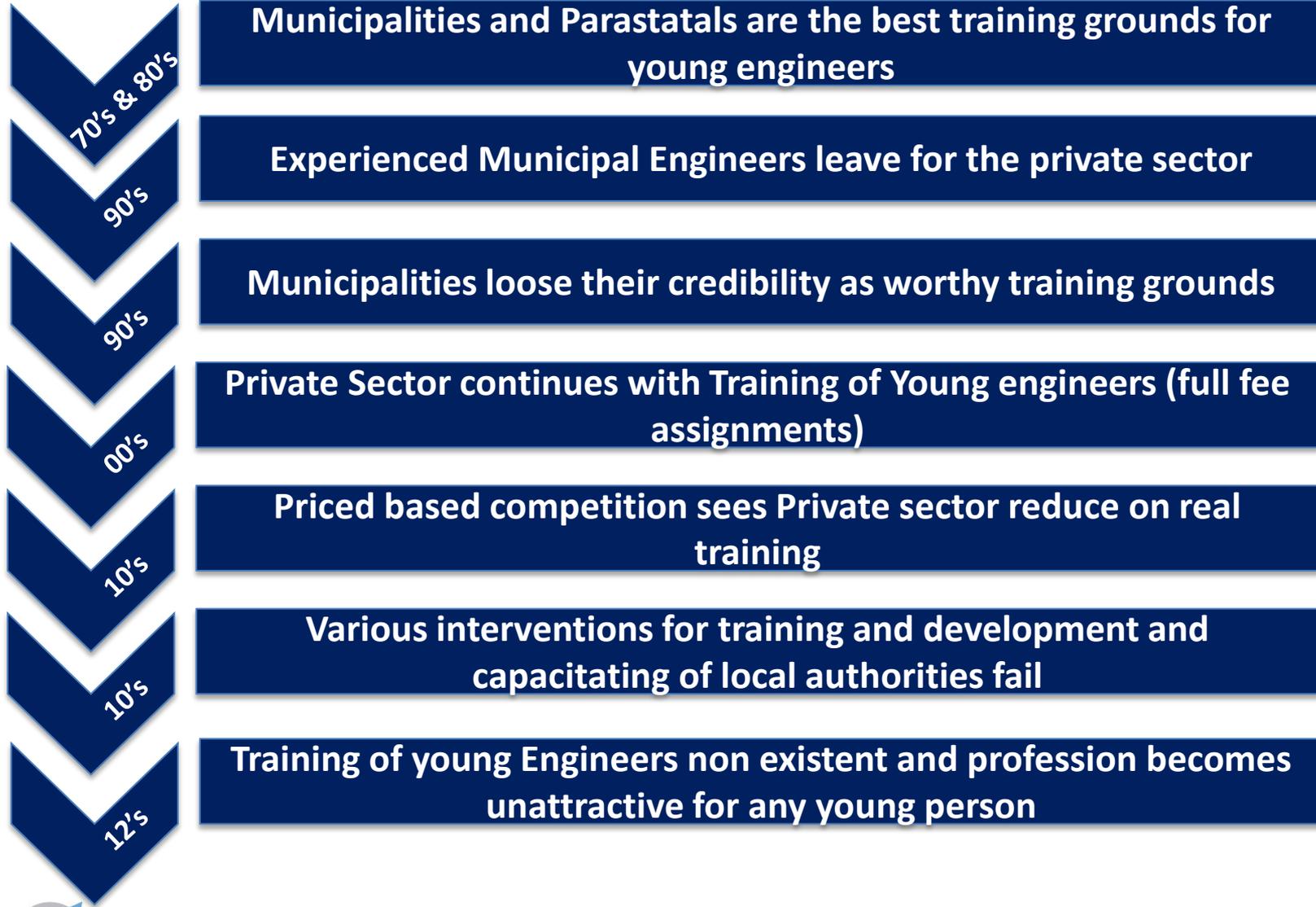


- Re-incarnation implies you are dead!
- The coffin is open... You can be seen but you are not heard!!
- You have no voice!
- When you are in the box, others decide for you!
- You need to be re-incarnated!!

- need a new look... With new gadgets!
- need a fresh approach
- when you come back from the dead, there is a good chance that you will have more teeth!!



3. Quo Vadis South Africa - Training



4. Quo Vadis South Africa – Provincial & Municipal Planning

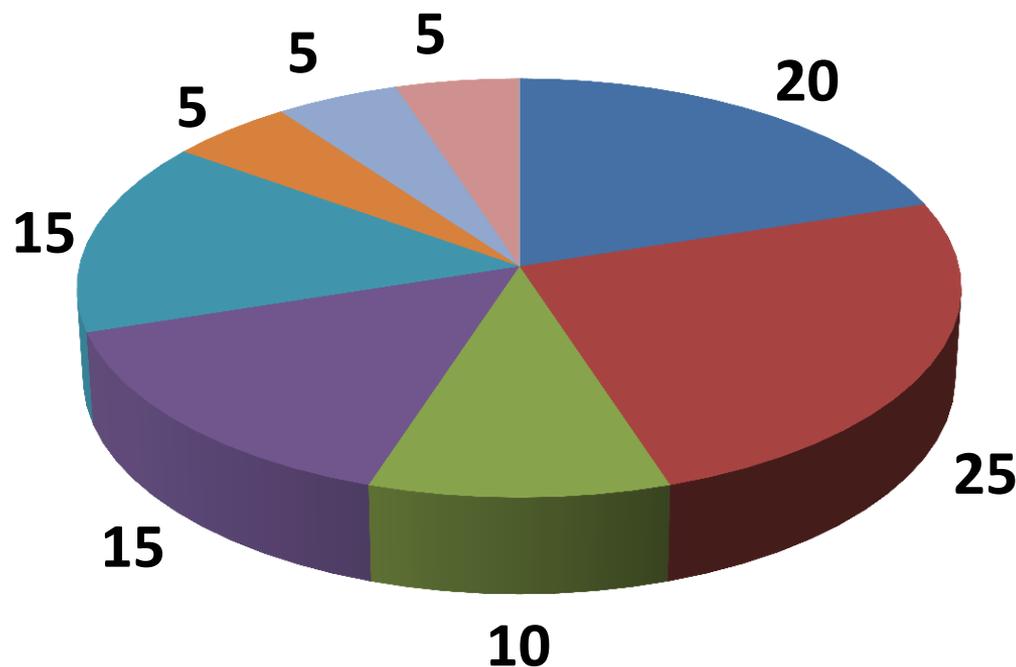
- Integrated Development Plans (incl sector specific plans)
- IDP's are very often **political wish lists**.
- UN show population to grow from **7bn to 9bn by 2050** (ie 1million each week for the next 38 years)
- UN forecast for **urban population** by 2050 to be **6.3 bn** (up from 3.5 bn today)
- Why are we building infrastructure to last 50 years in the rural areas?
- Planning is done rather **superficially** and only a **real Municipal Engineer** and a competent team of visionary planners can sort that out.

5. Quo Vadis South Africa – National Planning

- We are excited about the work of the National Planning Commission
- Will that national plan be able to control the Provincial and Municipal Political Maverick's?
- Examples:
 - Creating stadia and other international sport facilities as white elephants with no hope of a sustainable business case
 - Creating International Convention Centres which are only used for its true purpose a few times a year.

6. Quo Vadis South Africa—A day in the life of a Municipal Engineer

Scenario : % time on various activities



7. Different outcomes require different approaches

- **Job Creation requires innovation in unlocking projects**
- **Win-win mentality is required (trust)**
- **Entrepreneurial delivery mechanisms:**
 - **Framework Contracts**
 - **PPP's**
 - **Unsolicited bids (PPP's)**
 - **Partnering**
 - **(continue traditional models)**
- **Share in risks (no risk... no reward!)**



8. Infrastructure Delivery's biggest stumbling block

Business Integrity

- Socialising with clients
- Conflict of interest
- Use of agents and partners
- Collusion
- Bribery
- Personal relationships
- Confidential information

Don't be trapped in your own reasoning!!

We all have an ethical balance!



9. Structural Changes

- **Long term contracts** for key staff
- Tender & Bid evaluation committees must include **technical, legal and financial executives** in joint sitting
- **Professional team** must put in **report on tenders** to the bid evaluation committees
- **Greenfield projects** best executed by the **private sector**.
- **Operation & maintenance** to get more emphasis (KPI for political & executive structure to focus on O&M KPI's)
- Allow **private sector help in interim** to catch up and get back on the road again

10. Policy Changes

- **Procurement legislation** to include regulations for goods, routine services and **professional services**
- A Bribery and Corruption Act such as the UK **Bribery Act of 2010** should be introduced in SA (courts to prosecute on such an Act)
- **Name and Shame** for business integrity issues
- Ease up **PPP regulations** and encourage alternative delivery mechanism for infrastructure

11. What do we want for South Africa?

- Job creation?
- Training and Development of the youth?
- Well operated & maintained infrastructure?
- Low municipal service downtime?
- Low cost for essential services?
- Sustainable future?
- Economic Growth?

If the answer is “**yes**” to any of the above, we better **re-incarnate the Municipal Engineer!**

12. Concluding Remarks

- Embrace the municipal engineer as your **trusted advisor**
- Create a **working environment** to attract and retain Municipal Engineers
- **Incentivise Municipal Engineers** (long term job, purpose in life, emoluments, respect and freedom)
- Do not try to do the job of the Municipal Engineer if you are not the Municipal Engineer

**“Engineering for Change
The Municipal Engineer & the Changing Environment”**

“Re-Incarnation of the Municipal Engineer”



**Thank
You!**

Naren Bhojaram

President
Consulting Engineers South Africa

Director – Rivers Delta’s & Coasts
Royal HaskoningDHV