

# Creating Value in the South African Construction Industry

**cidb** Postgraduate Conference 2011

W Jerling Pr Eng Pr CPM



# Content

- Introduction and Context
- Does South Africa need it's own construction industry?
- Is the construction industry failing society?
- Creating Value
- The Future role of young construction professionals



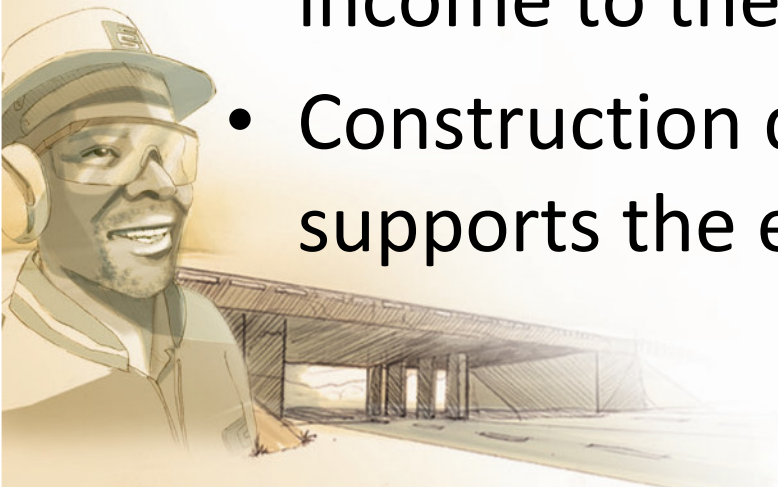
# Introduction and Context

- Our industry
  - Building
  - Heavy Civils (Industrial and Mining)
  - Infrastructure
- Large increase in construction up to 2010.
- Slump in industry since 2010
- Failure of many construction enterprises, particular in the emerging category
- Impatience from communities following poor service delivery
- Low levels of integration amongst players who deliver projects in the built environment



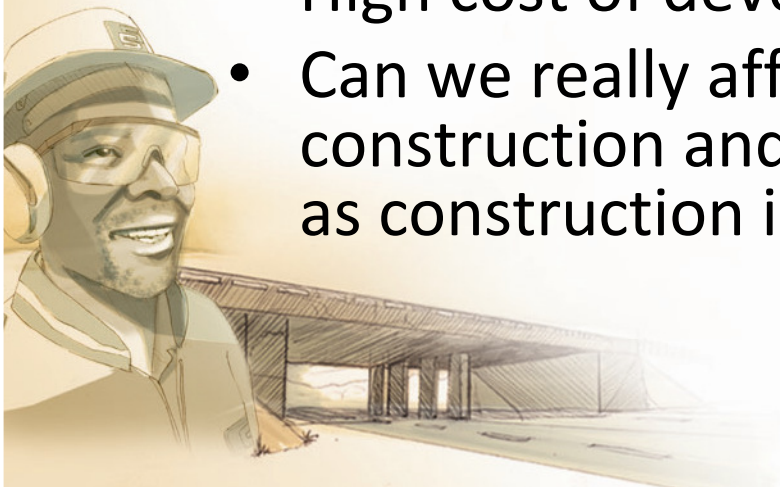
# An own industry, or not?

- Not all countries have a domestic construction economy
- Spend, calculated as a % of GDP defines our contribution (8%?)
- Construction is invaluable in delivering income to the poor
- Construction develops infrastructure and supports the economy



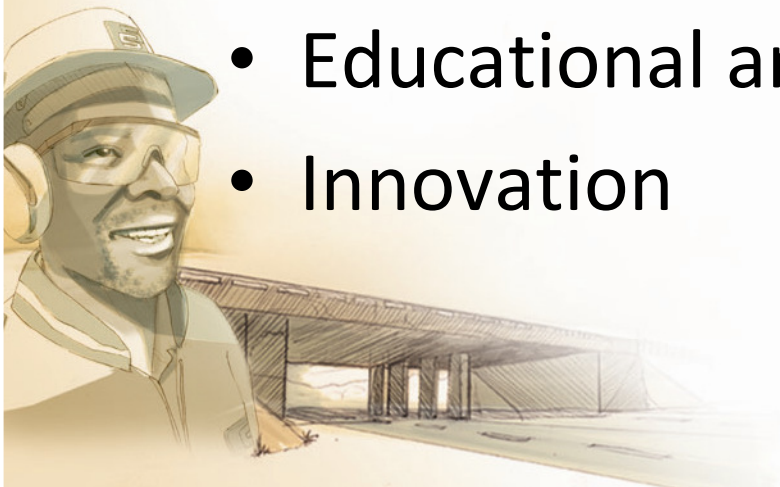
# Do we fail society?

- Large industrial and infrastructure projects:
  - Over Budget
  - Programme delays
  - Poor quality
  - Low Productivity
- Dismal safety record
- Failure of emerging contractors
- Huge infrastructure backlogs
- High cost of developing infrastructure
- Can we really afford viewing civil engineering construction and building sciences separately as far as construction is concerned?



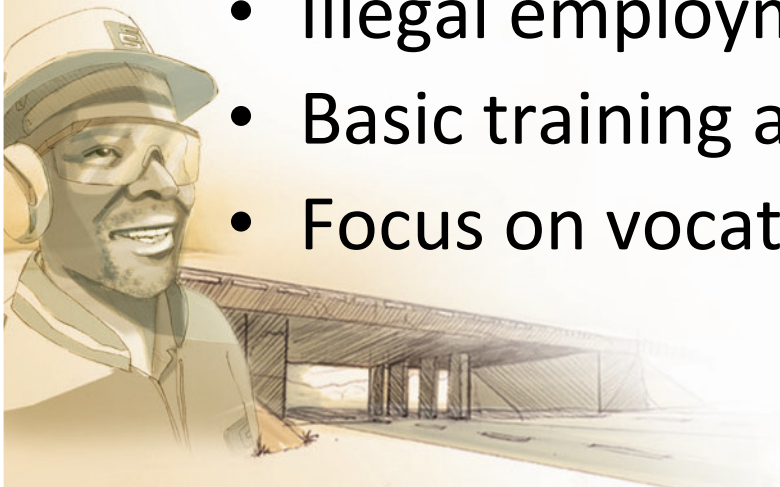
# Creating Value

- People factors
- Commercial and contractual factors
- Institutional & Professional factors
- The safety environment
- Environmental factors
- Educational and developmental factors
- Innovation



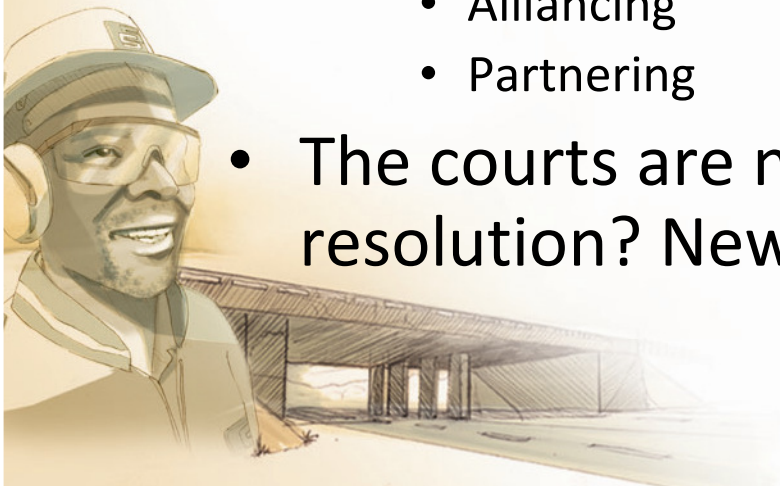
# Creating Value -People factors

- Understanding the communities we come to work in
- Understanding the expectations of the poor we provide employment to
- The prickly issue of the “living wage” and worker exploitation
- Illegal employment
- Basic training and life skills orientation
- Focus on vocational training at school level



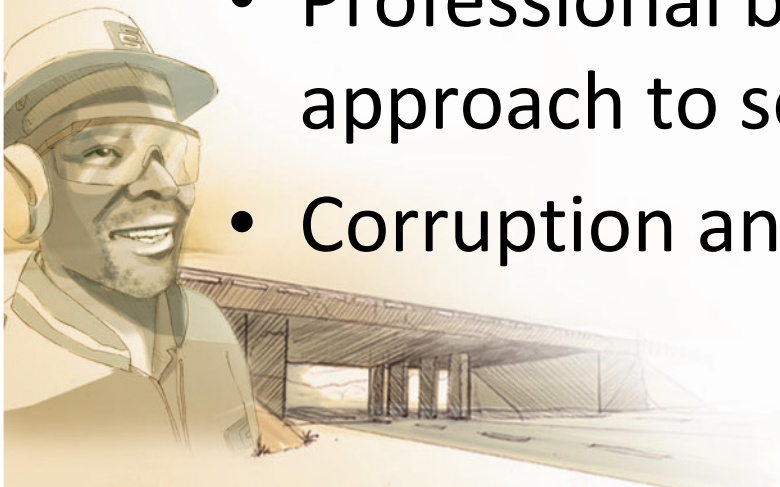
# Creating Value –Comm & Contractual

- Skill sets required for construction professionals to run complicated project delivery models
  - BOT and BOOT
  - Design and Construct
  - LSTK and EPC Contracting
  - Collaborative Contracting Models
    - Collaboration
    - Alliancing
    - Partnering
- The courts are not an option – Alt dispute resolution? New and creative models required



# Creating Value – Institutional factors

- Construction is a potential jewel in the crown of the country. Govt support does not portray this
- Complicated regulatory and legal framework for contractors
- Professional bodies are not unified in the approach to serve the built environment
- Corruption and fraud?



# Creating Value – Safety Environment

- Plethora of “safety systems” out there in the workplace
- Mine and “other” safety legislation.
- Lack of safety related competencies in construction professionals
- Design for safety....
- Huge disparity in safety performance within built environment (Bldg vs Civils?)



# Creating Value – Environmental

- Green building a refreshing reality
- We have to start measuring environmental performance
- Environmental professionals in contractor organisations and their impact in the field?
- Legislation prohibitive and contradictory from the construction viewpoint



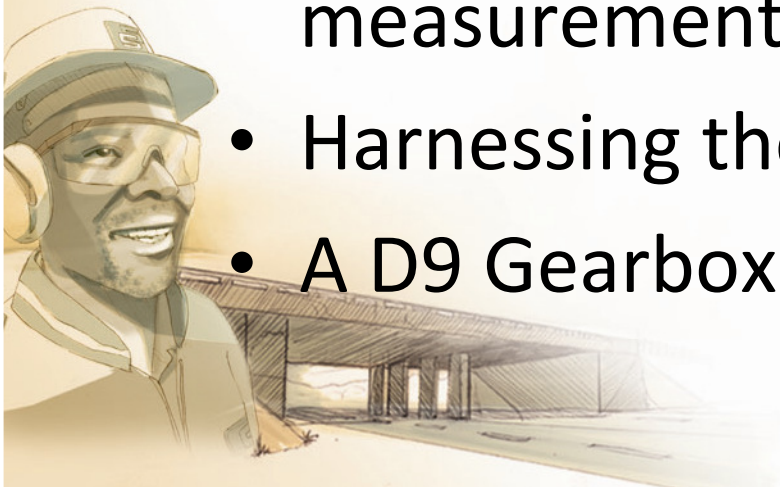
# Creating Value – Educational and developmental

- Find synergy between Building Sciences and Civil Engineering
- Who trains emerging contractors?
- Are FET Colleges getting there?
- Does tertiary education deliver “value for money?”
- Are students industry ready?
- Does a privileged education raise young employee expectations to the detriment of the industry it should serve?



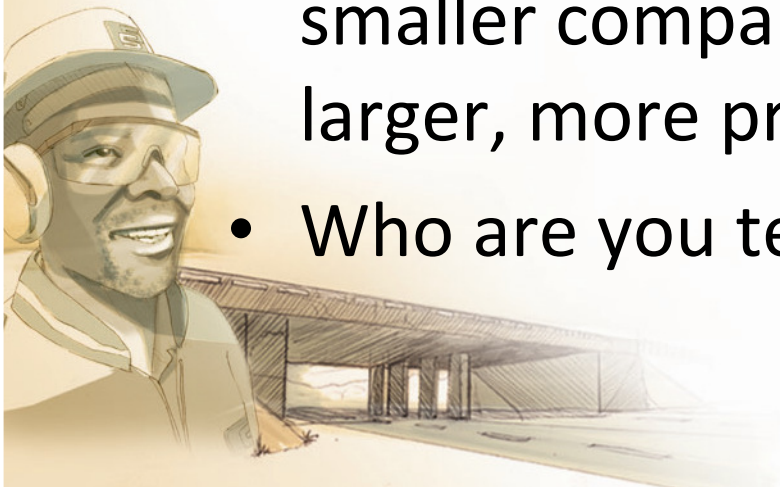
# Creating Value – Innovation

- Rationalising teams through alt delivery models
- New materials and methods
- Plant and equipment modernisation
- Real time costing and productivity measurement
- Harnessing the “twitter generation”
- A D9 Gearbox can still not be e-mailed...



# Your future role

- Embrace rather than fight the notion that we are part of Africa and have a contribution
- The construction industry consists of more than the big players, where do you see yourself?
- The face of construction is changing and smaller companies have to start playing a larger, more professional role
- Who are you teaching and coaching?



# Your future role - Continued

- In construction we work with people. How we do that impacts on the project outcome
- As a trained professional you have the responsibility for the lives of others
- You are not defined by your facebook profile but rather the things you create which will be there after you have gone.





Thank You