

Construction Skills Crisis- Challenge or Opportunity?

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Restoring the skills pipeline



Outline

- **Basic facts**
- **Construction drivers**
- **Employment statistics**
 - **General**
 - **Municipalities**
- **Training**
- **Construction demand**
- **Consequences of high demand**
- **Opportunities**
 - **The role of industry**
 - **Your role as a professional**
 - **The role of cidb**

Did you know?

- **Did you know?**
 - **There are 862 000 people employed in the construction industry**
- **Did you know?**
 - **By 2010 there will be an extra 421 000 people in the construction industry**
- **Did you know?**
 - **There are on average 12 people employed for every R1m invested in construction**
- **Did you know?**
 - **Women constitute 10% of the total construction industry employment**

Source: Industry Insight March 2007

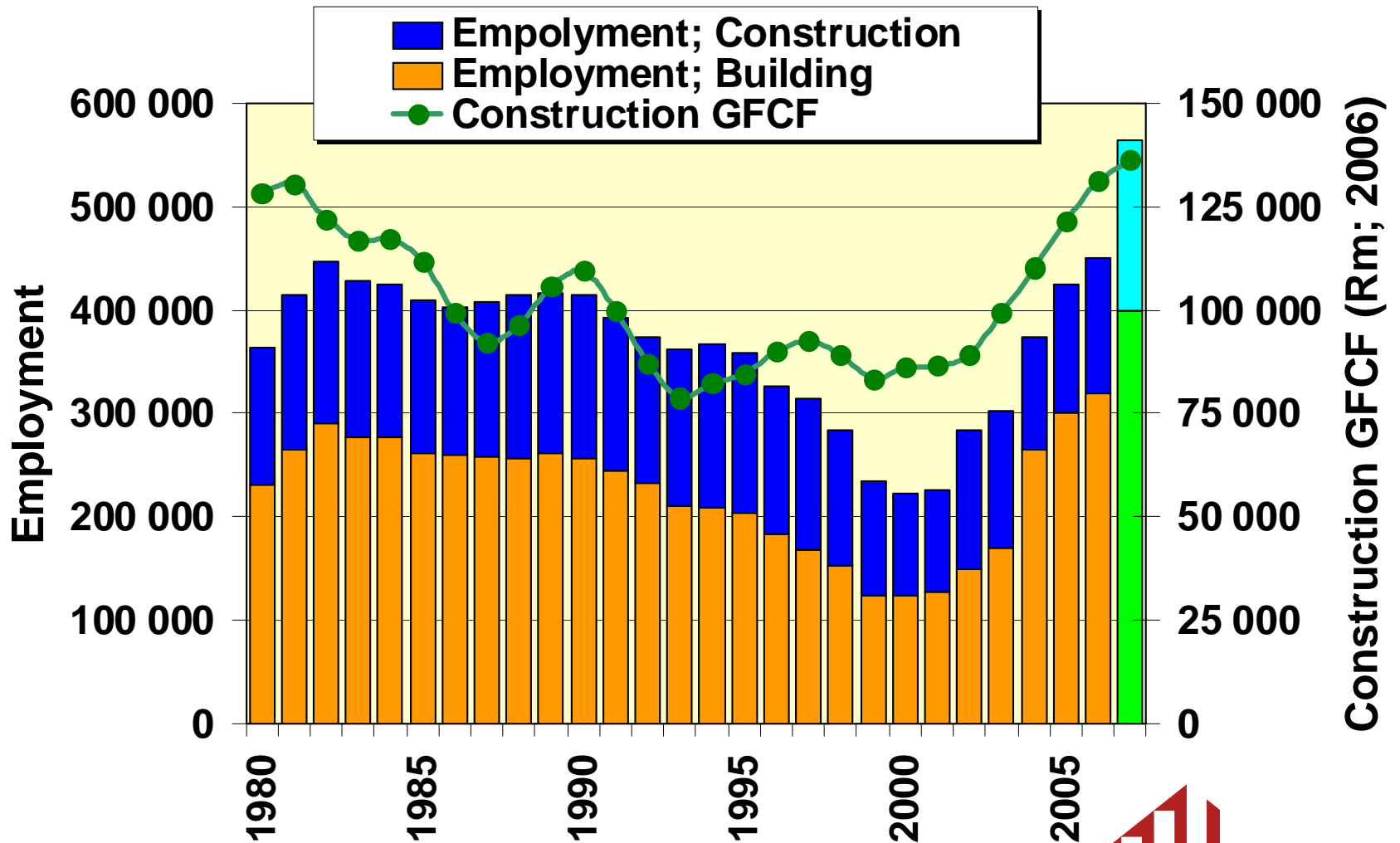
Economic drivers



- **Creating infrastructure for economic activity**
- **Improvement in the standard of living**
- **Eskom investment in power generation**
- **2010 FIFA world cup**
- **SANRAL and Transnet investments for transportation infrastructure**

Construction employment

Employment trends



Construction employment

- **600 000 as of Dec 2007**
 - Cyclic and casual
- **70 000 growth between March and September 2006**
- **Stratified**
 - 1 Professional Engineer
 - 2 Skilled Technologists
 - 7 Artisans
 - 50 Semi-skilled

Municipal employment

- **Civil engineering**
- **278 local and district municipalities**
- **83 no civil professional**
- **46 only 1 civil technician**
- **38 civil technician <35 years**
- **70 civil engineer**

- **Vacancy rates 35%**

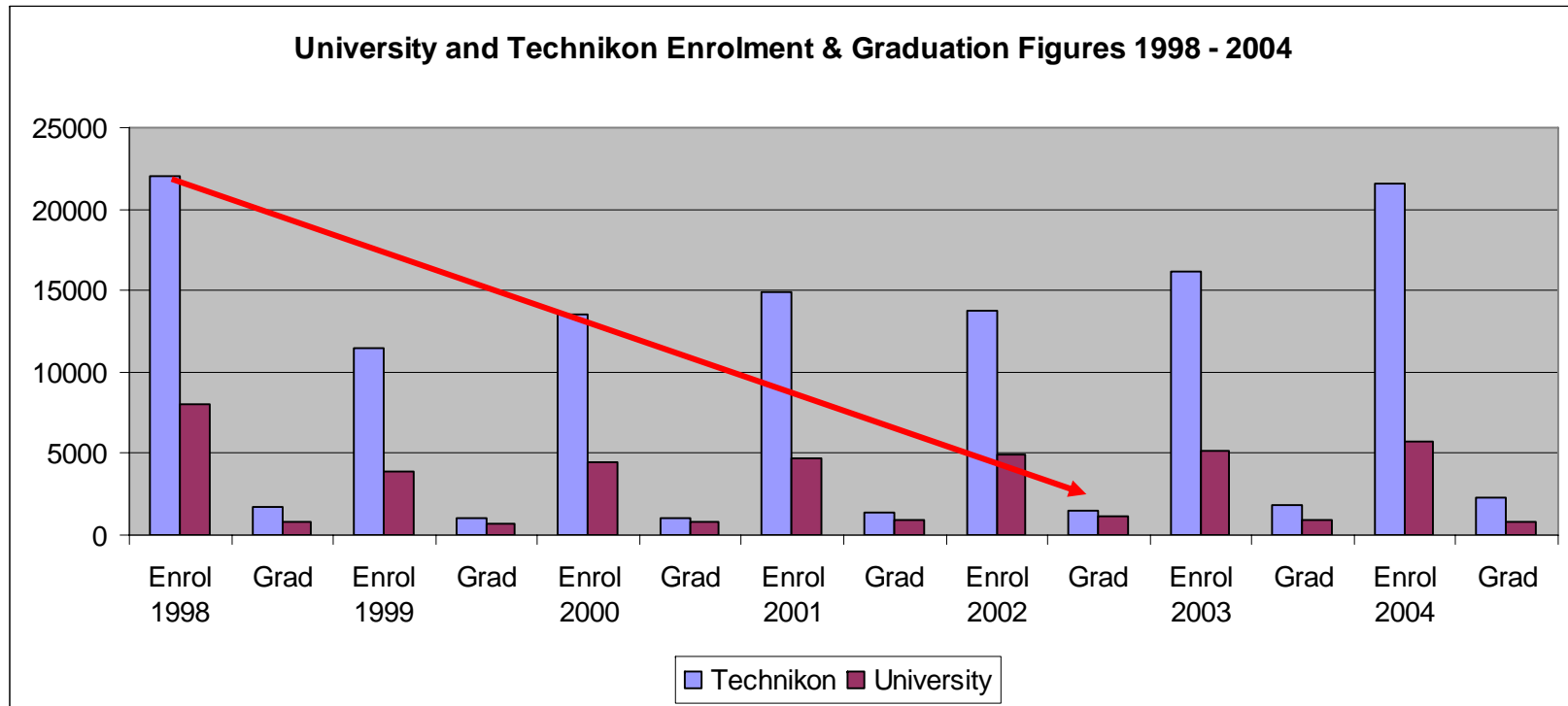
Training outputs

Learning pathways

How do you get there?

- **Graduate**
 - Professional, technologist and technician
- **Learning pathway**
 - University and University of Technology
 - Candidacy phase
 - Registration with professional councils
- **Entry requirements**
 - Good Matric
 - Higher grade
 - Maths,
 - Science,
 - English

Enrolment and graduation rates



Graduation rates (2004)

- **Average graduation rate of 11,3% across both Technikons and Universities.**
 - The University graduation rate is 17,5%
 - The Technikon Graduation rate is 10%

Training output

- **Engineering graduation rates per million population**
 - South Africa 45
 - China 225
 - United States 290
- **Number of engineers per person**
 - South Africa 1 for 3200 people
 - India and China 1 for 150
 - Europe 1 in 300
 - US and Australia 1 in 400

Skills demand

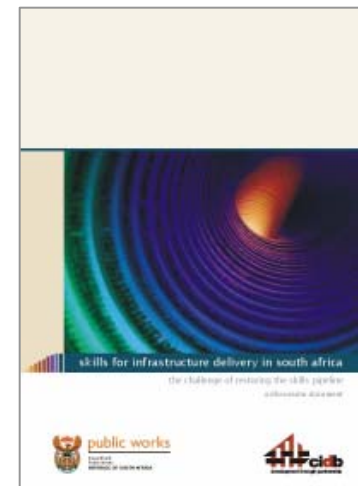
Construction spend

- **GFCF grew by 5.9% between 2001 and 2005**
- **R526 over the next three years**
- **Forecast to grow by 12% between 2005 and 2009**
- **Government investment growing at 15%**
- **Eskom accelerating investment in power generation**

Consequences of high demand

- High salaries
- High demand for minimum skills
- Low potential for completion of studies
- Low emphasis on postgraduate studies
- **Where to from here?**

Recommended interventions



Improving the Skills Pipeline (i)

- **Increasing the numbers of maths and science graduates**
 - **Department of Education**
- **Improving the attractiveness of the industry**
 - **Department of Public Works, industry and professional associations**

Recommendations

Improving the Skills Pipeline (ii)

- **Improving the quality and relevance of current training programmes;**
 - **Department of Education, HEQC, professional councils and industry**
- **Strengthen funding mechanisms**
 - **Department of Education and Industry**
- **Restoring the experiential learning system**
 - **cidb, CETA and industry**

Role of industry

- **Materials for case studies**
- **Guest lecturing**
- **Course design and development**
- **Promoting CPD**
- **Promoting research**
 - commissioned
 - primary
- **Senior practitioners to teach**

Young professionals

- **Recruitment**
 - Excitement and rewards
 - Role modelling
 - Supporting local schools
- **Professional mentoring**
 - Peer
 - Employee
 - Student chapter



Role of cidb

- **Establishment of industry ESDA**
- **Development of career guidance DVD**
- **Partnership with industry**
 - CETA
 - SAFCEC
 - MBSA
 - NAFCOC, etc.
- **Partnership with other statutory bodies**
 - CBE
 - IDT
 - IDC

Role of cidb (ii)

- **Developing and introducing best practice management systems**
 - Environmental management
 - Quality
 - Workforce
- **Introducing competency assessment**
 - Skills passports
 - Accredited contractor scheme
 - Registration of foremen and supervisors
- **Facilitating procurement reform**
 - 10% percent policy



Conclusion

- **Make your mark**
- **Recruit as vigorously as possible**
- **Mentor**

Thank You