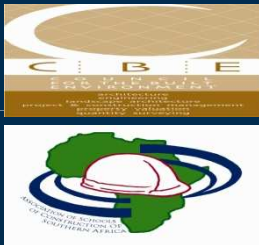


# HIGHLIGHTING THE GAP BETWEEN CRITICAL OUTCOMES REQUIREMENTS AND BUILT ENVIRONMENT EDUCATION IN SOUTH AFRICA

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# Outline

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- **Skills shortages: quantity versus quality**
- **International trends in built environment education**
  - The driver of change
  - The transformed role of the built environment professional in society
  - The new approach to built environment education
- **Situational analysis**
  - Skills trends in the built environment professions
  - Identification of Critical Outcomes





# Skills shortage: quantity versus quality

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## *The quantity issue*

- A highly qualified workforce is fundamental to economic competitiveness in the 21<sup>st</sup> century.

## *The quality issue*

- Sustainable economic growth depends on an appropriate portfolio of knowledge and skills.

## *The South African dilemma*

- The endemic shortage of skills in the built environment professions is a threat to the implementation of government policy and a potentially fatal constraint to shared growth.
- Proiritize quantity over quality.

# Driver for change

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## *Transformation in the mode of knowledge production*

### **Mode 1 Knowledge**

- Discipline bound
- Hierarchical
- Institutionalised
- Subject to peer review
- Problems set and solved in academic context
- Context of application different from context of acquisition

### **Mode 2 Knowledge**

- Trans-disciplinary
- Heterarchical
- Socially distributed
- Socially accountable
- Problems set and solved in the context of application

# The transformed role of BEP in society (1)

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## *Conventional role - “the trusted adviser”*

- Profession-centred.
- Discipline bound decision making.
- There is a hierarchy of knowledge and skills.
- Professionals are self-employed.
- Discipline-specific skills are of paramount importance to success in business.



# The transformed role of BEP in society (2)

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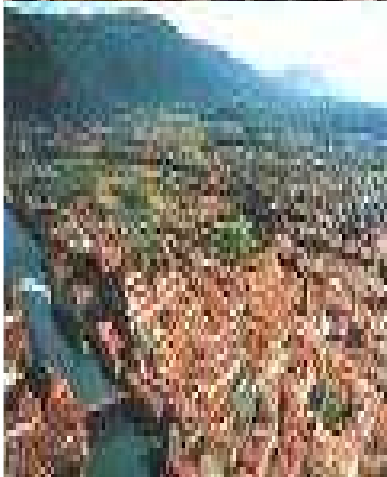
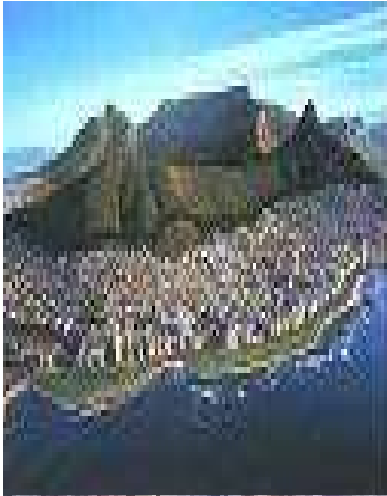
## *21st century role - “the social partner”*

- Both client and profession-centred.
- Socially accountable decision-making.
- Knowledge (Mode 1) and skills (Mode 2) enjoy parity of esteem.
- Many built environment professionals are employees in large organisations.
- Soft (trans-disciplinary) skills have become the key to success in business.



# The new approach to built environment education (1)

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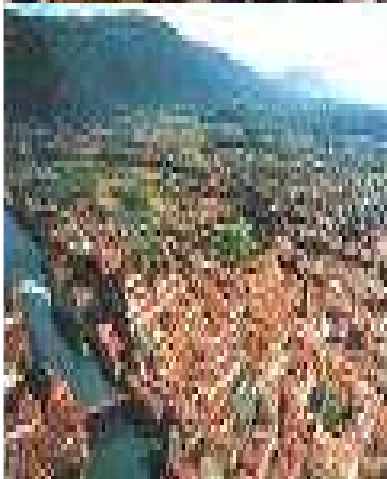
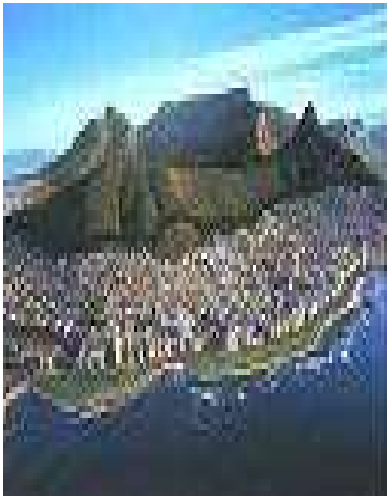


## *The conventional education model*

- Meets conventional professional competency requirements for the role of “the trusted adviser”.
- Lack of curriculum balance – the separation of propositional knowledge (Specific Outcomes) from process knowledge (Critical Outcomes) results in a gap in the knowledge-base.
- Learning outcome – unprepared to face the complexity of the 21st century work environment.
- Does not address employability issues.

# The new approach to built environment education (2)

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## *The new education model*

- The NQF links education to broader socio-economic objectives.
- The NQF is endorsed by international organisations (ILO / UNESCO) and has been widely adopted.
- Curriculum balance – propositional knowledge (Specific Outcomes) and process knowledge (Critical Outcomes) are accorded parity of esteem in the learning programme: credits are allocated for both types of learning.
- The learning outcome – a flexible portfolio of knowledge and skills that encourages lifelong learning and employability.



# Skills trends in the built environment professions (1)

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## *Skills demanded by employers in the construction sector*

- The CETA have identified four categories of employability skills that are demanded by employers in the construction sector namely:
  - ✓ Basic skills
  - ✓ Organisational skills
  - ✓ Technical skills and
  - ✓ Industry-specific skills



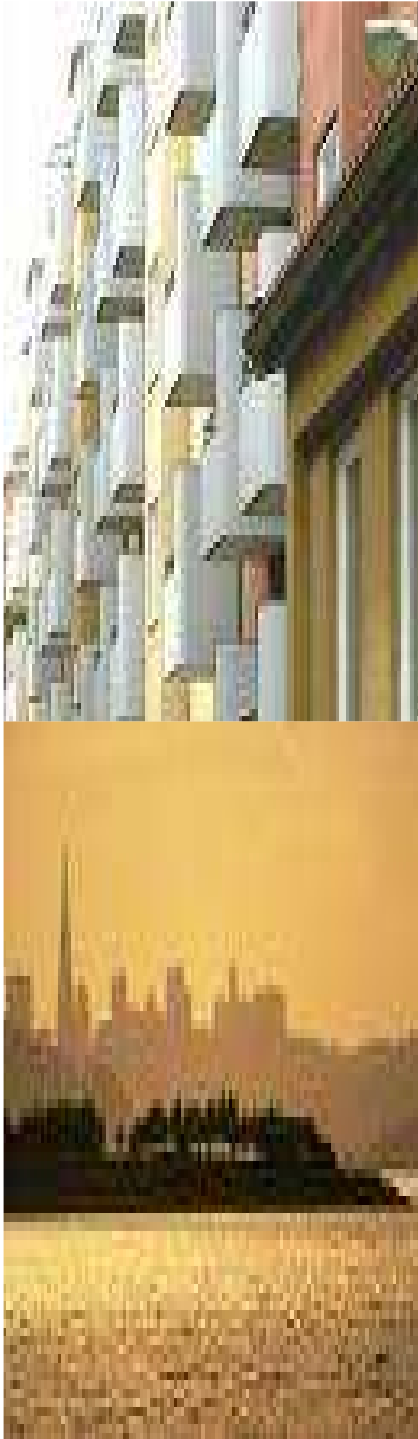


## Skills trends in the built environment professions (2)

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### *Skills demanded by the customer*

- The CIDB 2004 customer satisfaction survey indicates that built environment professionals lack:
  - ✓ Design management (technical) skills
  - ✓ General management (basic) skills
  - ✓ Business development (organisational) skills - needed to change industry culture and align professional services with contemporary client demands e.g. CSR.
  - ✓ Construction management (industry-specific) skills – e.g. competencies pertaining to Supply Chain Management (SCM)



## Skills trends in the built environment professions (3)

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### *Skills demanded by the regulatory environment in the construction sector*

- ✓ Skills Development Act – business planning skills, coaching/mentoring skills, etc.
- ✓ Broad Based BEE Act – “built environment” ethics, strategic partnering, client-understanding, risk appraisal, etc.

CAUTION

## Identification of Critical Outcomes

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- Implementation of the new education (NQF) model started in the higher education sector in mid-2000.
- An exploratory study of built environment qualifications registered on the NQF gives rise to the following perceptions:
  - All NQF Critical Outcomes are needed by the professions
  - Non of the professional councils have identified Critical Outcomes needs
  - The conventional education focus on Specific Outcomes has not changed

CAUTION

## Conclusion

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- Trends in skills demands in the construction sector suggest that Critical Outcomes are needed to combat the threats to, and respond to the opportunities presented by the 21st Century work environment.
- However, the preferred learning outcomes of the NQF will not eventuate unless the relevant skills and competencies are identified and incorporated into the design of built environment qualifications.

**Thank you**

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