

Implementation of the Integrated Emerging Contractor Development Model: Towards enhanced competition for small construction firms

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INTRODUCTION AND BACKGROUND

South Africa is a technology colony. A technology colony status means that South Africa is highly dependent on other countries for technological innovativeness. This poster focuses on transfer of knowledge and innovative technologies that elevate small construction firms to new levels of growth, competitiveness and development.

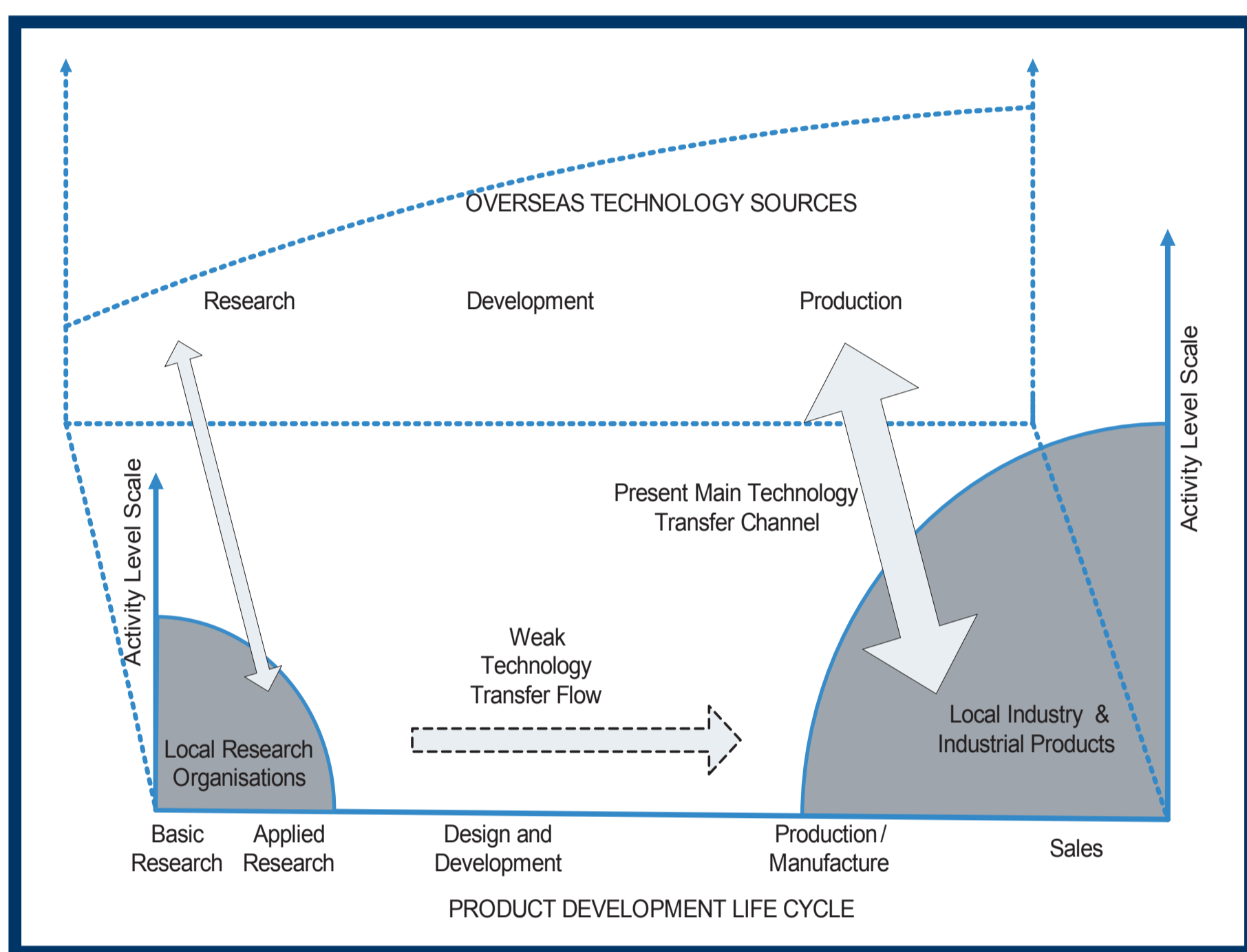


Figure 1: Technology transfer channels in the technology colony (from De Wet)

INTEGRATED EMERGING CONTRACTOR DEVELOPMENT MODEL
 An Integrated Emerging Contractor Development Model (IECDM) (Figure 2) is a framework for managing a contractor development programme by effectively facilitating the selection of suitable construction firms, implementation of a programme of skills training, mentorship and total quality management. IECDM therefore entails skills development while the contractor is working on a construction project.

In 2004 the model was piloted successfully in the Eastern Cape where 60 construction firms underwent a two-year development programme.

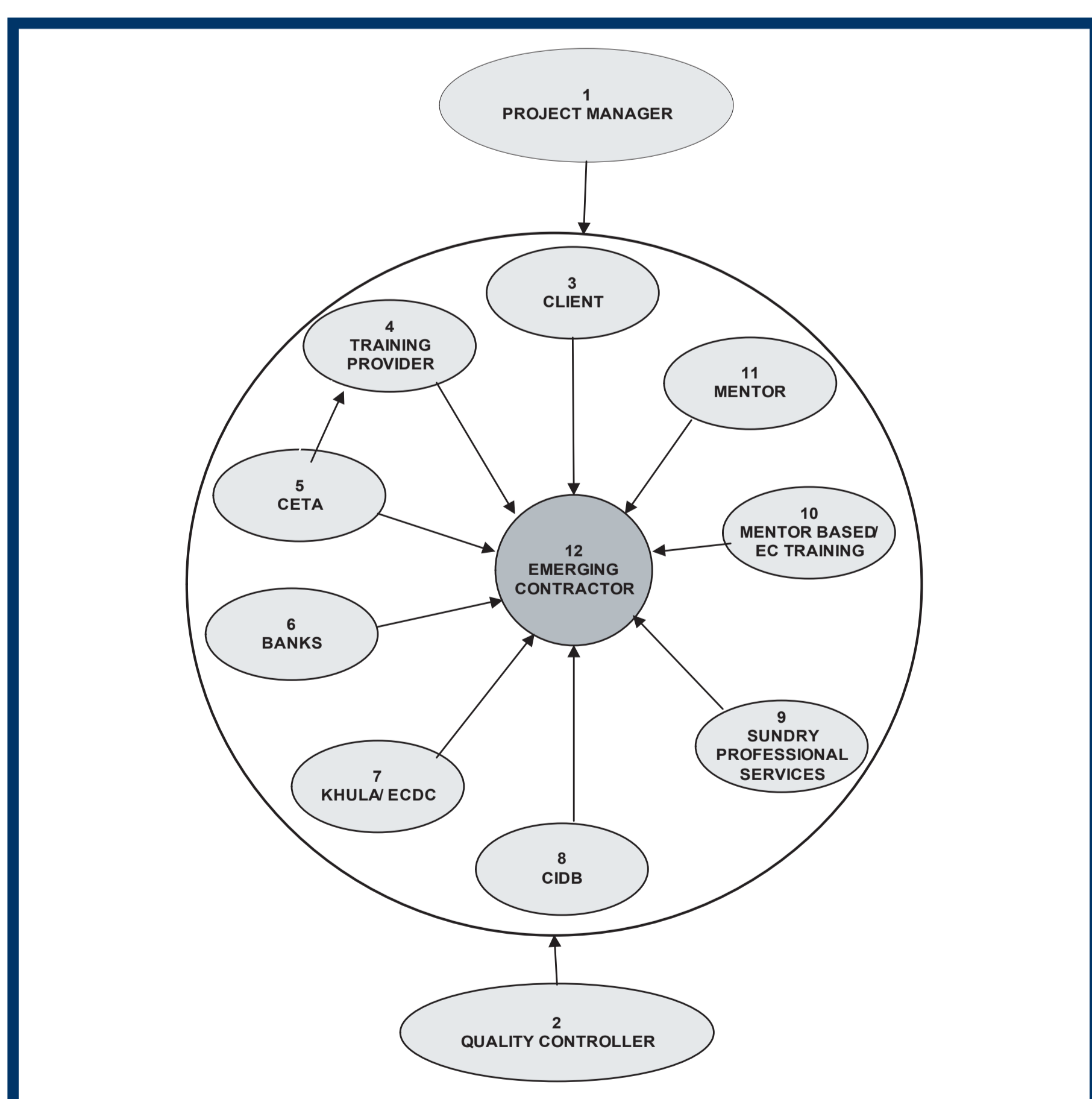


Figure 2: Structure of the IECDM

BENEFITS OF THE IECDM

The IECDM is a comprehensively managed contractor development model, which makes it a unique model in South Africa. The following are key benefits of the model:

- There is an integrated approach in the management of programme activities
- The model ensures that development process and results are quantifiable
- The model promotes continuous performance improvement
- The model is supported by strong research activities that ensure that it is the best international practice.

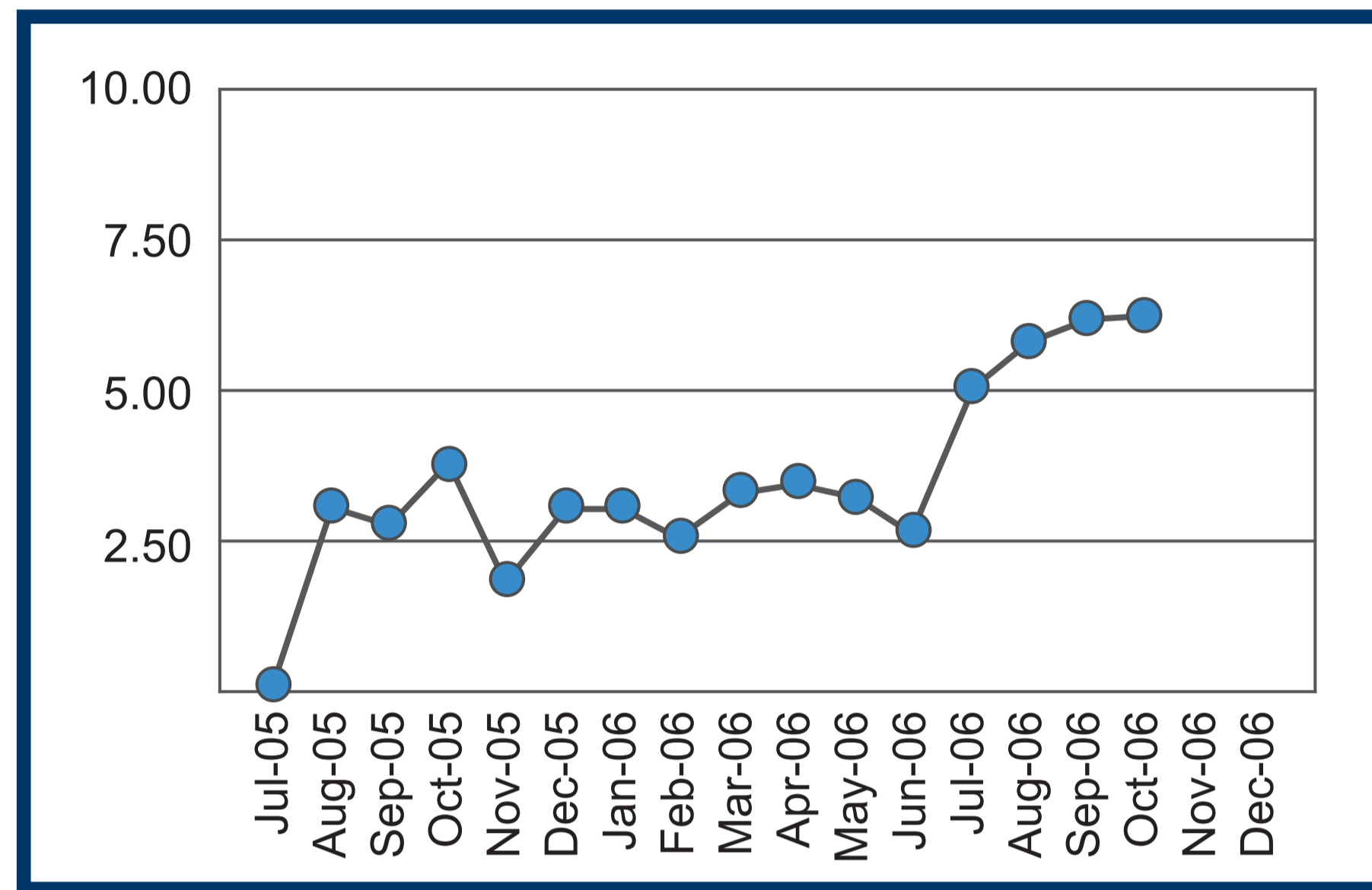


Figure 3: Graphical summary of performance

IECDM AS A VEHICLE FOR TECHNOLOGY TRANSFER

Figure 4 illustrates the potential effect of technology flows resulting from 'backward integration', and also indicates how the IECDM framework can be deployed to enhance the technology flows from both sources from abroad as well as from local research organisations, thus reducing South Africa's technological dependency.

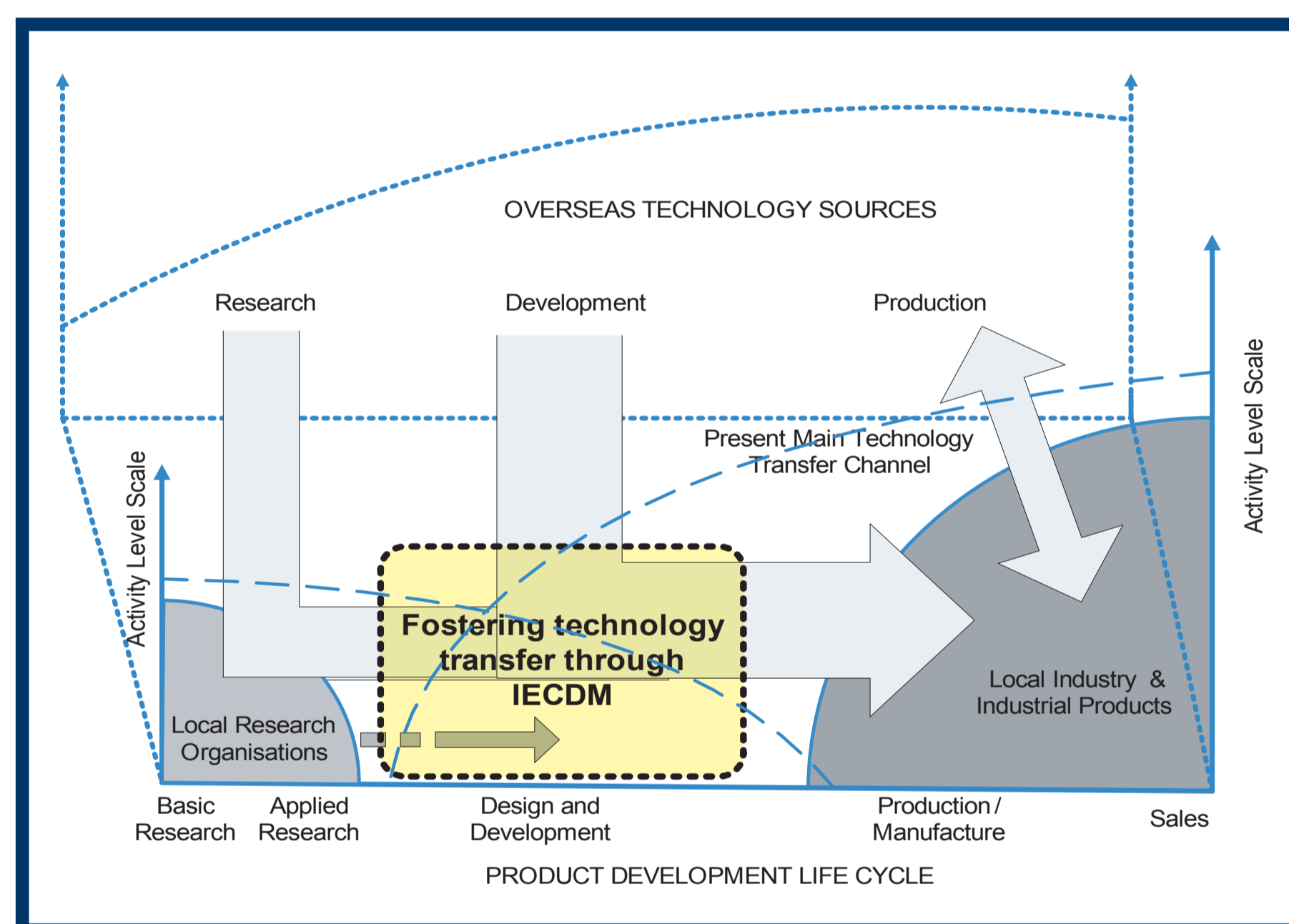


Figure 4: The effect on technology flows resulting from 'backward integration' and the deployment of the IECDM (adapted from De Wet)

In as much as IECDM has proven itself to be an effective framework in transferring knowledge and skills to small firms, the framework should be adapted to undertake a stronger role in the technology transfer arena. The following are some of the technology areas that require a specific focus:

- Adoption of information and communications technologies (ICTs)
- Adoption of modern methods of construction
- Knowledge and technology transfer is best achieved through a collaborative effort.

COLLABORATIVE STRATEGY IN FOSTERING COMPETITIVENESS FOR SA CONSTRUCTION FIRMS

To deliver effective technology transfer programmes, construction clients and sponsors should form effective collaboration with critical key role players, such as the CSIR, CIDB and IDC.



In assisting small emerging construction firms towards improved profitability, sustainability and global competitiveness, the CSIR has developed and implemented an Integrated Emerging Contractor Development Model (IECDM).



CONCLUSION

The IECDM has proven itself to be an effective development framework for small construction firms. The model should now focus strongly on addressing the technology gap faced by small construction firms in order to move South Africa towards strong competitiveness globally.

REFERENCE

De Wet G. 1998. *Emerging from the Technology Colony: A view from the South*. University of Pretoria: Department of Engineering and Technology Management.