

Best Practice in knowledge Skills and technology transfer from centres of generation to areas of application such as industry and business for social transformation

"What Africa needs is to invest in scientific and entrepreneurial capacity to harness the knowledge and put it to commercial use," Prof Calestous Juma

Best Practice in knowledge Skills and technology transfer from centres of generation to areas of application such as industry and business for social transformation



- **“KNOWLEDGE TRANSFER IS A BODY CONTACT SPORT”** – Graham Spittle, Chair of the UK Technology Strategy Board.
 - Tony Mitchell – Lead Consultant to British Council.
 - Africa Knowledge Transfer Partnerships.
 - September 2007
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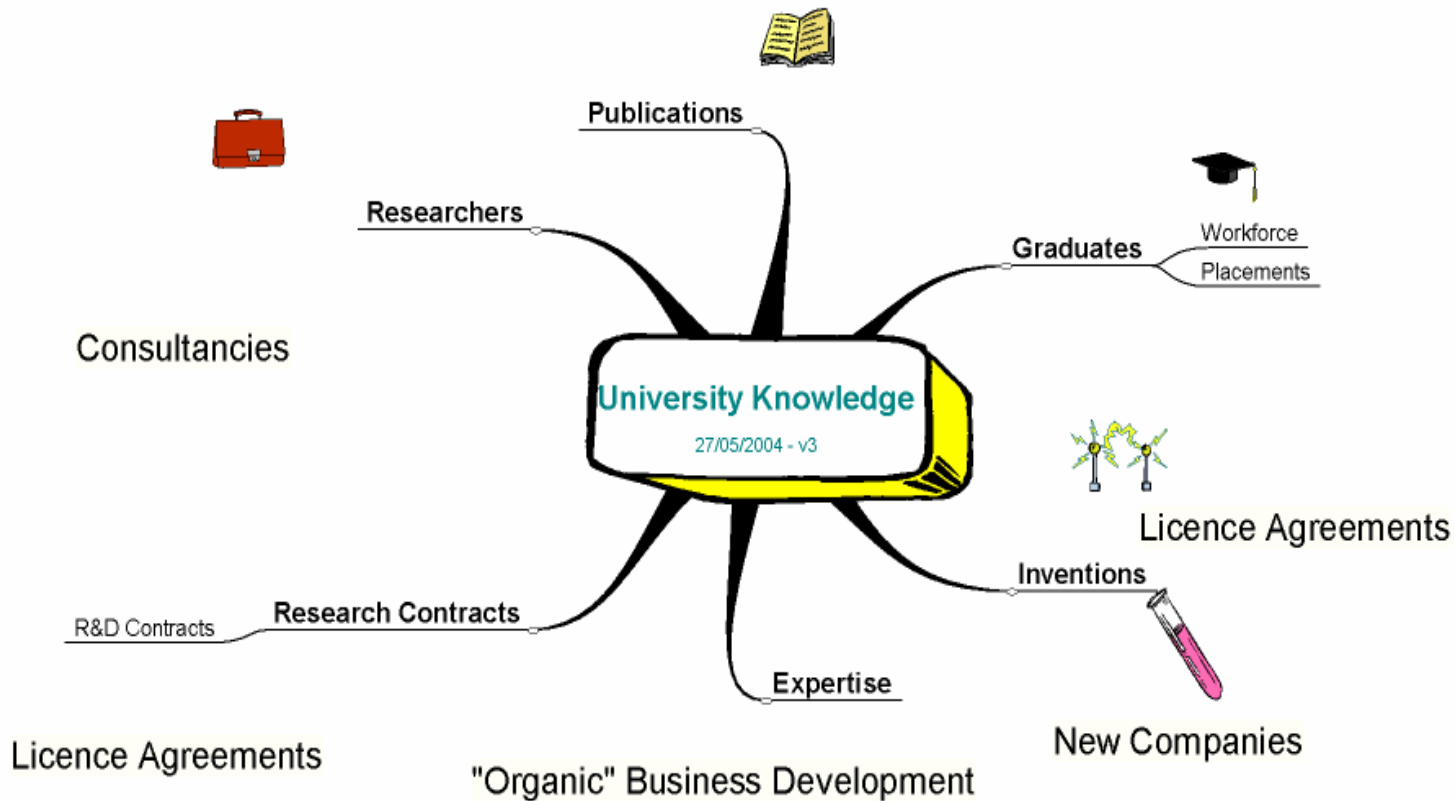
Top Priority Issues

Here are my top four “good practice” priorities:-

- Knowledge pulled, not pushed
 - Engagement of top quality human capital
 - Use of collaborative modalities
 - Development of solution based programmes
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Examples of Transfer Functions

"Informal" Transfer Functions



"Formal" Transfer Functions

Relative Priorities : What motivates Business Leaders to take part:

- From a Survey of Companies Interacting with Engineering Research Centres in the US
 - Top Ten anticipated benefits
 - 1st Access to new ideas & knowledge
 - 10th formal access to IP
 - Top Ten realised benefits
 - 1st Access to new ideas and knowledge
 - 2nd Human capital
 - 10th Formal access to IP
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Pull is better than Push

- Recent Research in USA reveals
 - Key role of demand from business
 - Required Co-ordination of Policies to
 - Stimulate demand & capacity to absorb
 - Improve KB ability to supply
 - Simplified Channels of access for business
 - Co-ordination of modes of knowledge transfer
 - Solution to business problem may involve several modes
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Developing Human Capital

- Some key numbers (engineers & scientists per million)
 - 1000 developed countries
 - 750 China
 - 83 SSA
 - Source - Nelson Mandela Institute
 - The best are needed for knowledge transfer
The African Institutes of Science & Technology –
 - AIST Abuja supported by IIT Bombay
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developing human capital – Indian Institute of Technology, Bombay



The Entrepreneurship Cell

- **Eureka!** business plans
 - **Ideaz** business ideas
 - **E-Summit** networking and informing
 - **INCorpora** business society
 - **GEN** global network
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developing human capital – Westlink Innovation Network, Western Canada



Innovation Network
Technology Commercialization
Internship programme

- **Technology Commercialization** - Research Institution (University, College, Hospital or Government)
 - **Commercialization/New Venture** - High Technology Company
 - **Finance** - Venture Capital or Commercial Financing Firm
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Commonwealth Scientific and Industrial Research Organisation. CSIRO Australia

■ Flagship collaborative research programmes



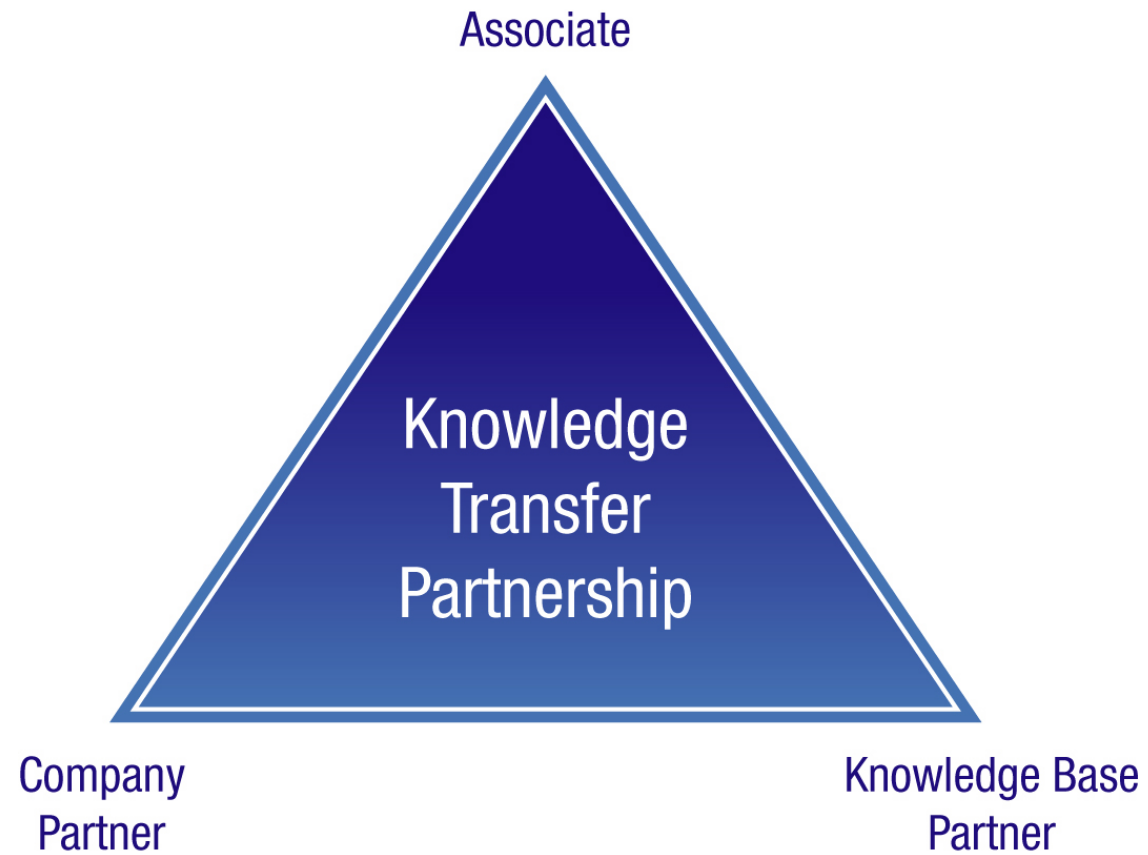
- Energy transformed
 - Preventative health
 - Food Futures
 - Light Metals
 - Water for a healthy Country
 - Wealth from oceans
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Knowledge Transfer Partnerships

Europe's most successful knowledge transfer programme

Per £1m Public Money	04/05	05/06
Number of Jobs Created	77	112
Number of Company Staff Trained	263	214
One-off Increase in Profit Before Tax	£.725m	£1.13m
Annual Increase in Profit Before Tax after Partnership Completion	£3.30m	£4.24m
Investment in Plant and Machinery	£1.54m	£3.25m

Partnership Structure



Africa Knowledge Transfer Partnership: The Strategic Impact

- **Build Capacity in the African Science Knowledge Base by**
 - increasing the relevance of research and teaching
 - facilitating collaboration with the UK Science K B
 - successful managed collaboration with the Private Sector

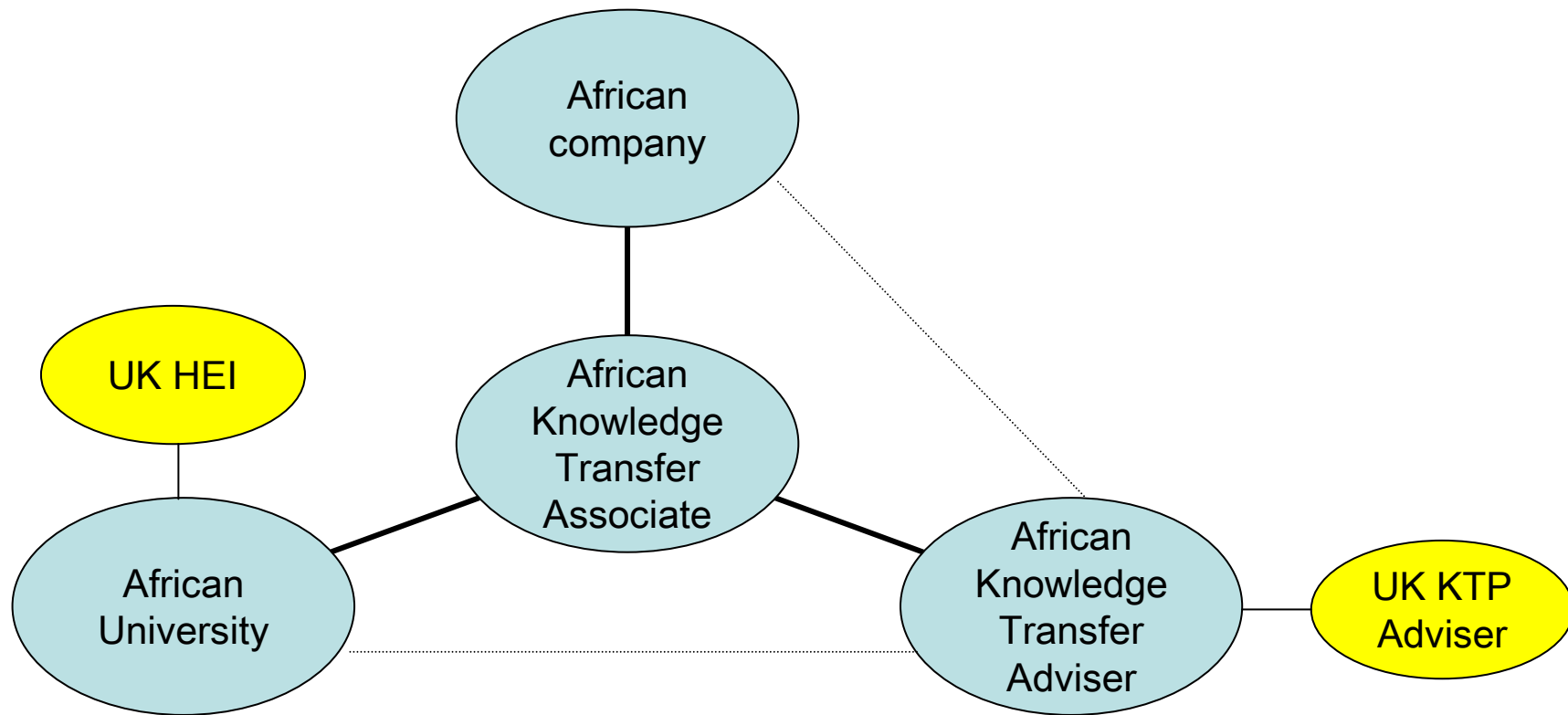
Increase the innovative use of Science in the Private Sector by

- Sponsoring projects of strategic importance
- Developing future business leaders with experience of working with the Knowledge Base

Creating opportunity for people worldwide



Project structure-2



Creating opportunity for people worldwide

The most successful knowledge transfer programmes are:

- Demand led - Knowledge pulled, not pushed
 - Engaging and developing top quality human capital
 - Teamwork – using collaborative modalities
 - Programmes that provide business solutions
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