

INNOVATION FUND Catalysing technological innovation in South Africa

Ela Romanowska

Seed Fund Manager

IFCO

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OPPORTUNITY TO INNOVATE



PRESENTATION OVERVIEW



- **Background** from research to innovation
- **IF overview** Objectives, beneficiaries, Instruments, Scale of funds
- IF project examples General & ICT specific
- "Rough Guide" lessons from Fund Management

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PROFILE OF SOUTH AFRICA

Population	:	43 million
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GDP : ~ \$130 Billion (US)

Origins of GDP :

- o Agriculture ~ 4%
- o Industry of which ~ 32%
 - Manufacturing ~ 20%
- o Services ~ 64%

Unemployment : ~ 30%





TECHNOLOGY DEVELOPMENT & TECH TRANSFER PROCESS



- - Due Diligence

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IF CREATION



- Outflow of White Paper on Science and Technology : notion of a "National System of Innovation"
- o First projects late 1990s
- Initially focussed on Science Councils/Research Institutions, evolved to being open to private sector
- Initiative of the Department of Science and Technology, managed by the National Research Foundation

IF OBJECTIVES



- o To promote technological innovation within the research community
- To promote the key issues of competitiveness, quality of live,
 environmental sustainability and harnessing of information technology
- To promote multidisciplinary and cross-sectoral collaborative research and development programmes within South Africa's national system of innovation



Involved in R&D aimed at the promotion of technological innovation



IF FUNDING INSTRUMENTS & SUPPORT

Missions in Technology (MiTech)

- (R15 million as matched funds with industry co-investor, 5 yrs)
- Full economic costs, 5% royalty

Technology Advancement Prog. (TAP)

- (R15 million, no matching funds required, 3 yrs)
- Full economic costs, 5% royalty

• Patent Support:

- Patent Incentive Fund Financial rewards for stat-funded inventors
- Patent Support Fund Matching funds to assist in international patents
- Tech Xfer offices (TTOs)

Commercialisation Support:

- Seed Fund R5 million preferably as co-investment with VC (primarily prior IF projects), equity
- General assistance with Commercialisation of outcomes from MITECH, TAP

Technology Promotion

– National Innovation Competition (NIC) – Student business plan competn.



CONSORTIUM APPROACH

- Multi-disciplinary
- Public-Private Partnerships [PPP]
- Focus on small, medium enterprises/sector
- Revenue track record
 - >x = MiTech
 - <**x** = TAP
- Equity holders in start-up
- Ownership of IP

TAP & MITECH CRITERIA

- Novelty/Innovation/Technology:
 - * Highlight why the product is technologically innovative
 - * Technology risks

Market Need/competitiveness/Commercialization

* Market Study [size, customers, sales, competitors]

Consortium:
 * technical & business competence
 * BEE

National benefit:

increased employment
new capital investment
improvement in competitiveness of South African Industry
creation of a new market sector

Global Impact:

Export potential of the product/process, service
compliance with international best practices/requirements
competition with international products





DST Funds to the IF (1998-2004)





Summary of IF Investment portfolio

Round	Pre-Proposal applications received	Grants awarded	Commitments (R)
1	Applications received by DST	19	96,989,000
2	Applications received by DST	22	127,261,000
3	Applications received by DST	16	104,364,411
4	126	18	104,167,214
5	209	11	94,082,517
6	127	12	101,681,542
2002/2003 MiTech	150	6	21,840,000
2002/2003 TAP	Included in MiTech call	2	14,263,000
TOTAL	612	106	664,648,684

NB. The 612 pre-proposals is limited to the total applications received under the new IF business process.



Project Portfolio





Total IF investments per sector



Analysis of the ICT Sector



Total awarded per beneficiary category



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Bio-ceramic Eye









Intelligent Firearm





ICT RELATED PROJECTS

- National health knowledge network
- Virtual learning spaces
- Collaborative African virtual environments
- Culture preservation
- High speed microwave radio modem
- Development of innovative ICTS (rural applications)
- Software for the prediction of workplace environmental conditions
- Smart digital cameras based on one-dimensional sensors applied to industrial processing and medical environments
- Developing a GIS based decision support system for the Lubombo spatial development initiative
- Multisensor microsatellite imager
- ICT solutions for power optimisation
- The computer electronic interface for the primary healthcare telemedicine workstation
- African speech technologies

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FIRSTLY : KNOW THE LANDSCAPE



South African Technology Development Funding



IDEA PROOF OF CONCEPT PATENT BUSINESS PLAN PROTOTYPE MANAGEMENT SALES EXIT



THE "ROUGH GUIDE" TO SUCCESS

- Don't disclose, see a patent attorney
- If in doubt file a provisional gives credibility
- Look up and out (RTFW)

•www.uspto.org, www.espacenet.com

•www.dogpile.com, www.aardvark.co.za

- If you think there is no competition, you either have not found it or there is no market (!!!)
- If you cannot name (by company) your first client you are starting on the back foot (market, market, market)
- You need a champion an almost full time professional



THE "ROUGH GUIDE" TO SUCCESS

- Funds fund *solutions* not problems
- Serial not parallel inventors good
- Investors look for reasons not to invest keep it simple and don't hide stuff
- A letter from an initial client saying "I will buy x of these for Ry if its performance meets z"
- An idea without people has no net value (50year rule) : Funds fund people not technologies
- There is strong competition; be the best

BE THE BEST



Ideas to New Products Success Ratio – the High Attrition Rate



IF FOCUS : ICT CONCEPTUAL EXAMPLES



IF would fund

New Technologies

- to improve accessibility for disabled
- to improve usability for non computer literate
- that improve services, lower costs
- ... which meet the other conditions/criteria

IF would not fund:

- Yet another database
- Yet another portal
- Implementation of existing technologies or products



The Innovation Fund is

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www.innovationfund.ac.za