

Cape Biotech Trust

Presentation to BioSA and Finnish delegation

31 March 2008



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Department of
Science & Technology



Presentation outline

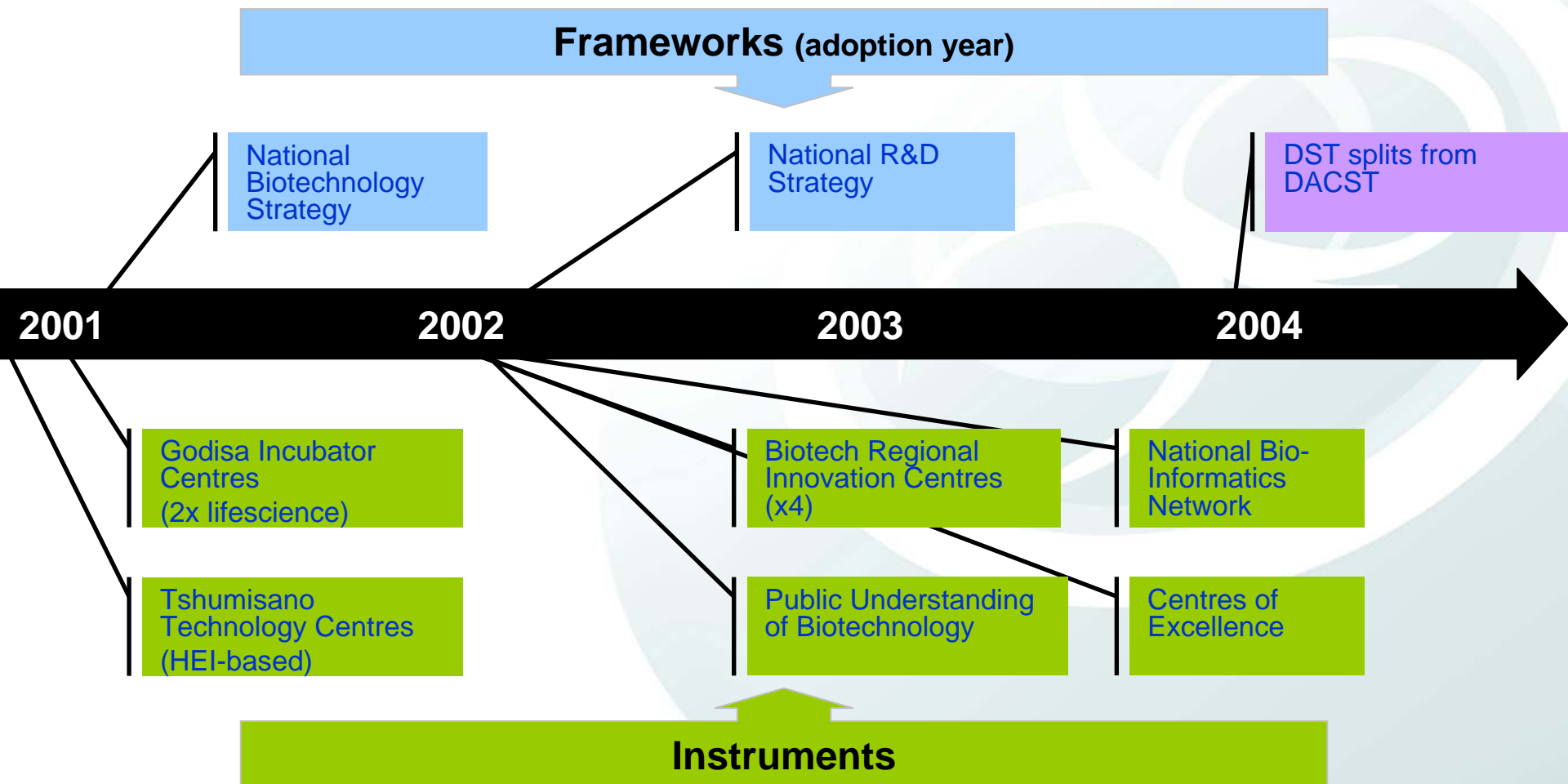
- Government's biotech landscape
- CBT's purpose & approach
- CBT's processes
- CBT's projects



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Government's biotech landscape



Government's biotech landscape



science
& technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

Regional instruments



BioPAD

Growing Biotechnology in South Africa



Cape Biotech



LIFElab
ECoBio Innovation Centre

National instruments



NATIONAL
BIOINFORMATICS
NETWORK

Public
Understanding of
Biotechnology



PlantBio



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CBT purpose & approach: Vision and Mission

Vision:

The creation of a sustainable, developing and integrated bio-economy in the Western and Northern Cape that delivers into South African imperatives.

Mission Statement:

To catalyse innovation for the development of a bio-economy.



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CBT purpose & approach: Simplified

What does CBT wish to achieve?

- The stimulation and growth of the South African Biotechnology industry, mostly through new venture creation and capacity building
- A return on Government's investment into biotech: Sustainable economic and social value-creation by the biotech sector.

What does CBT do?

- CBT invests public funds (through DST) into viable and promising biotech start-ups, and
- Manages & incubates the investment in order that value* is created.

How does CBT do the above?

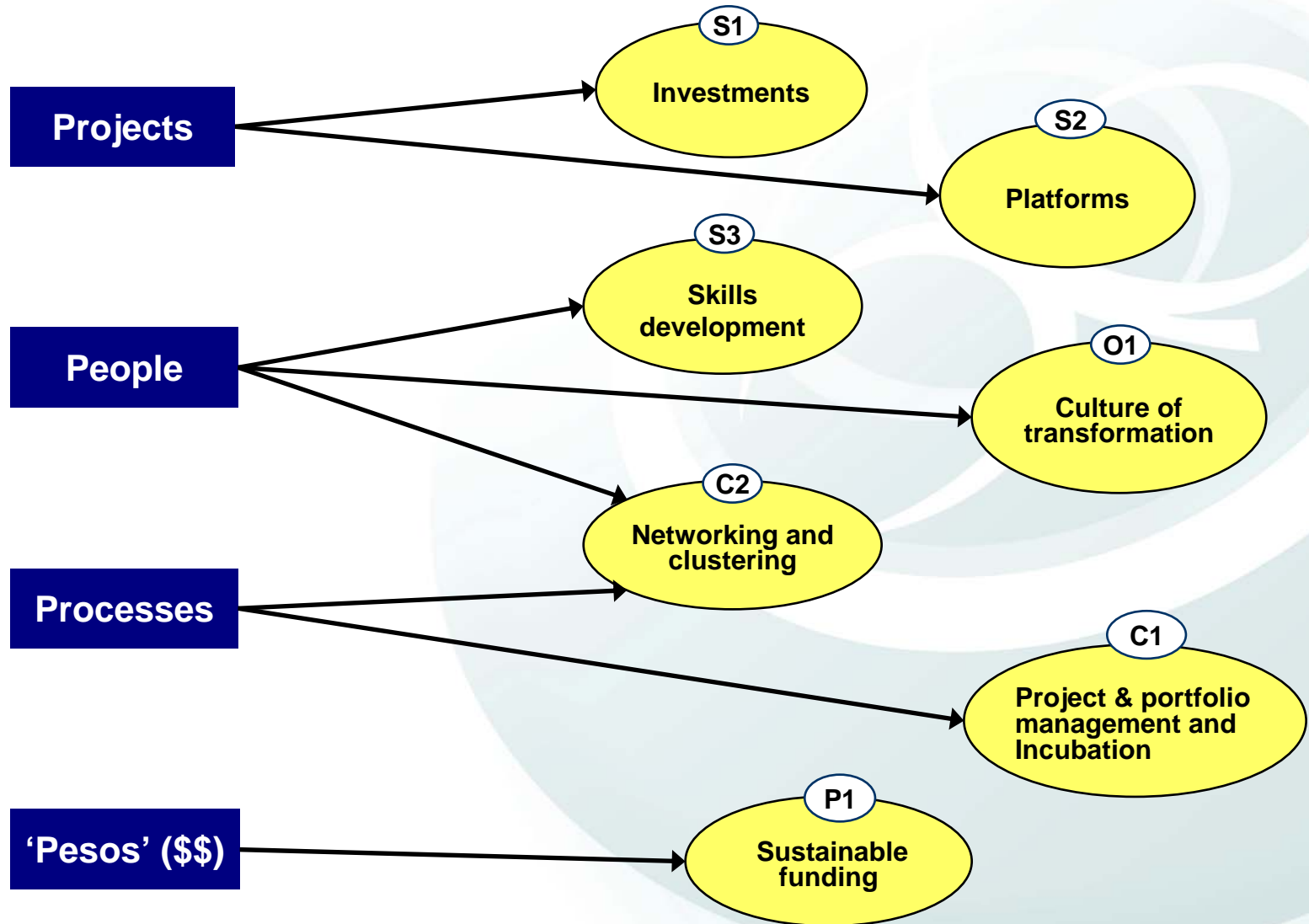
- CBT strategic objectives



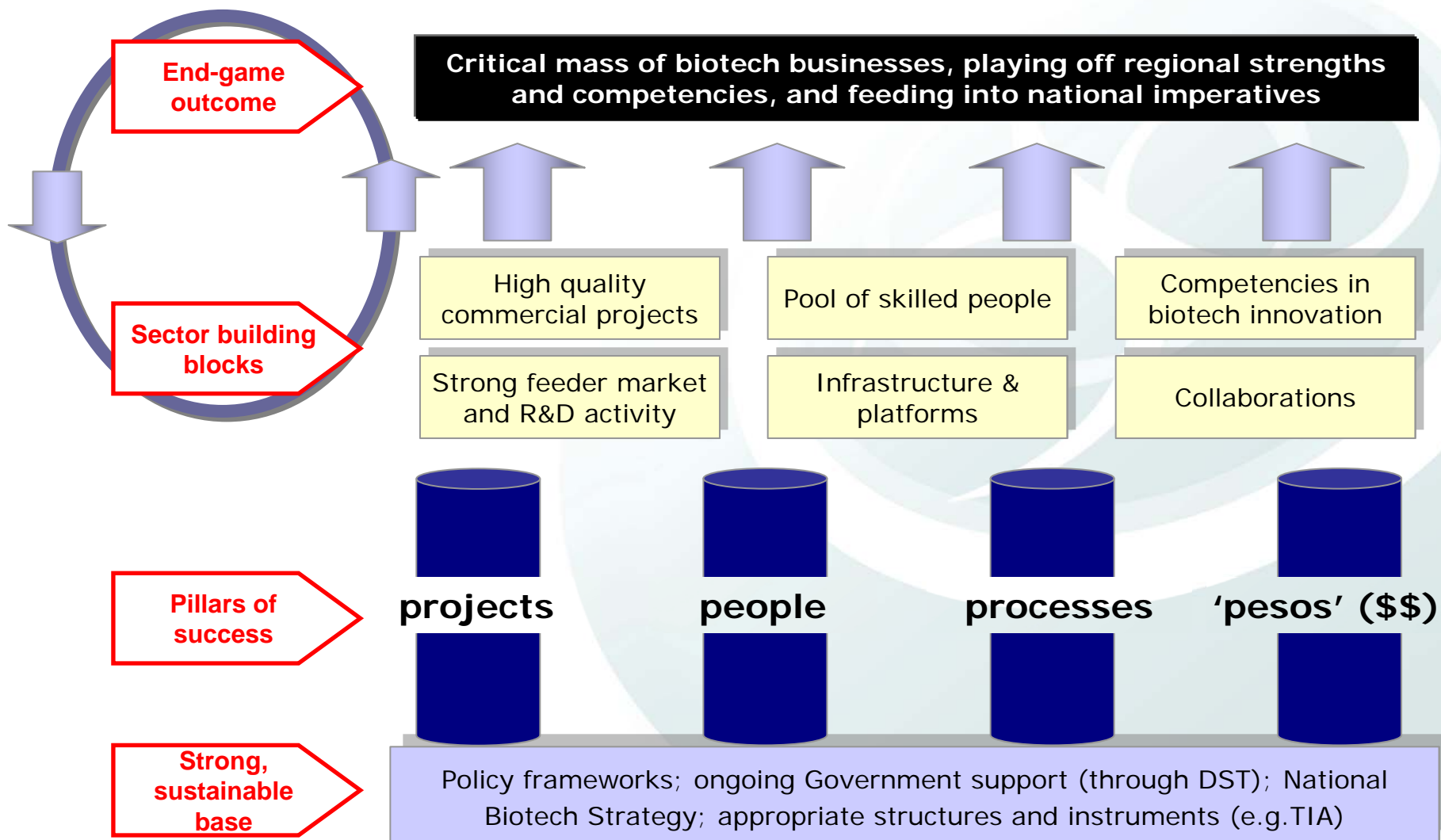
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CBT purpose & approach: Strategic objectives



CBT purpose & approach: The bigger picture



CBT purpose & approach: Underlying themes

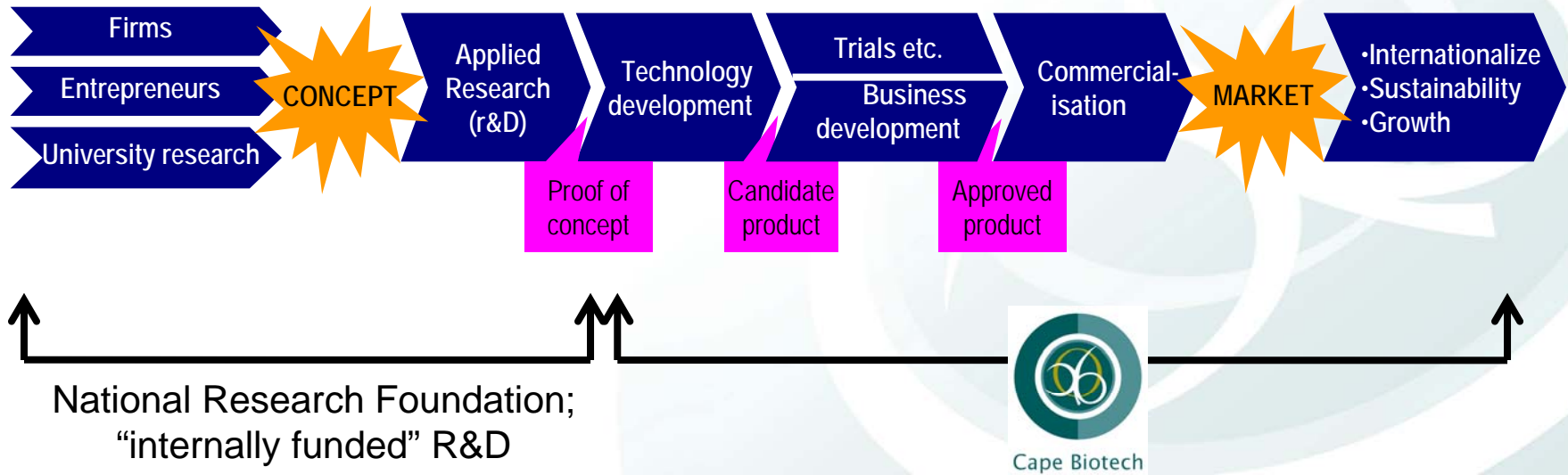
- Focused bio-economy: based on regional strengths and competencies.
 - Diagnostics
 - Vaccines
 - Drug delivery
 - Bioprospecting (Natural New Chemical Entities [NCEs])
 - Nutraceuticals
- Regional Infrastructure: cross-cutting technology platforms that support the biotechnology community in the Western- and Northern Cape.
- Innovation excellence:
 - development of bio-entrepreneurial skills and promoting the growth of an entrepreneurial culture within research institutions
 - development of internal capabilities (innovation skills)



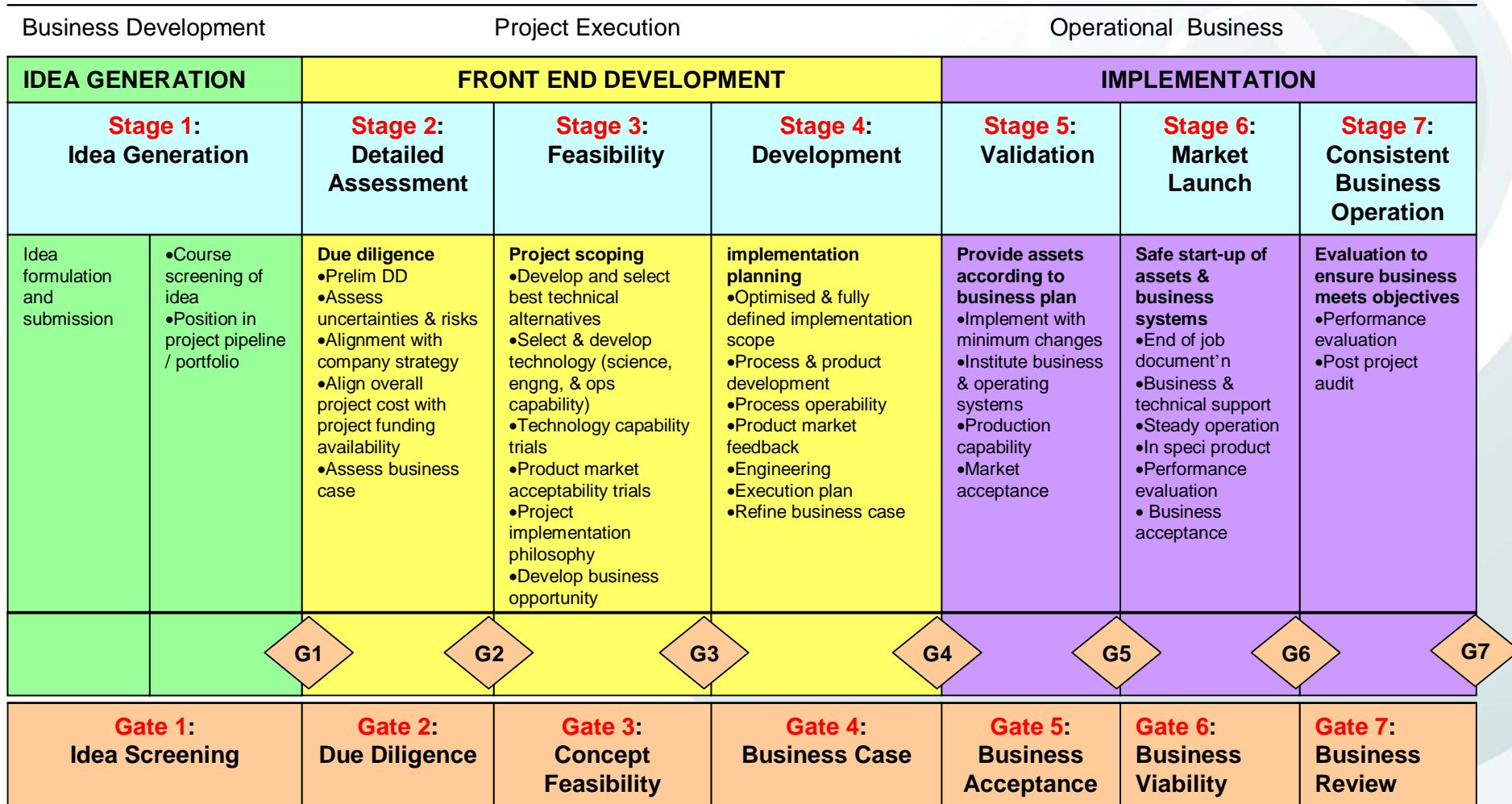
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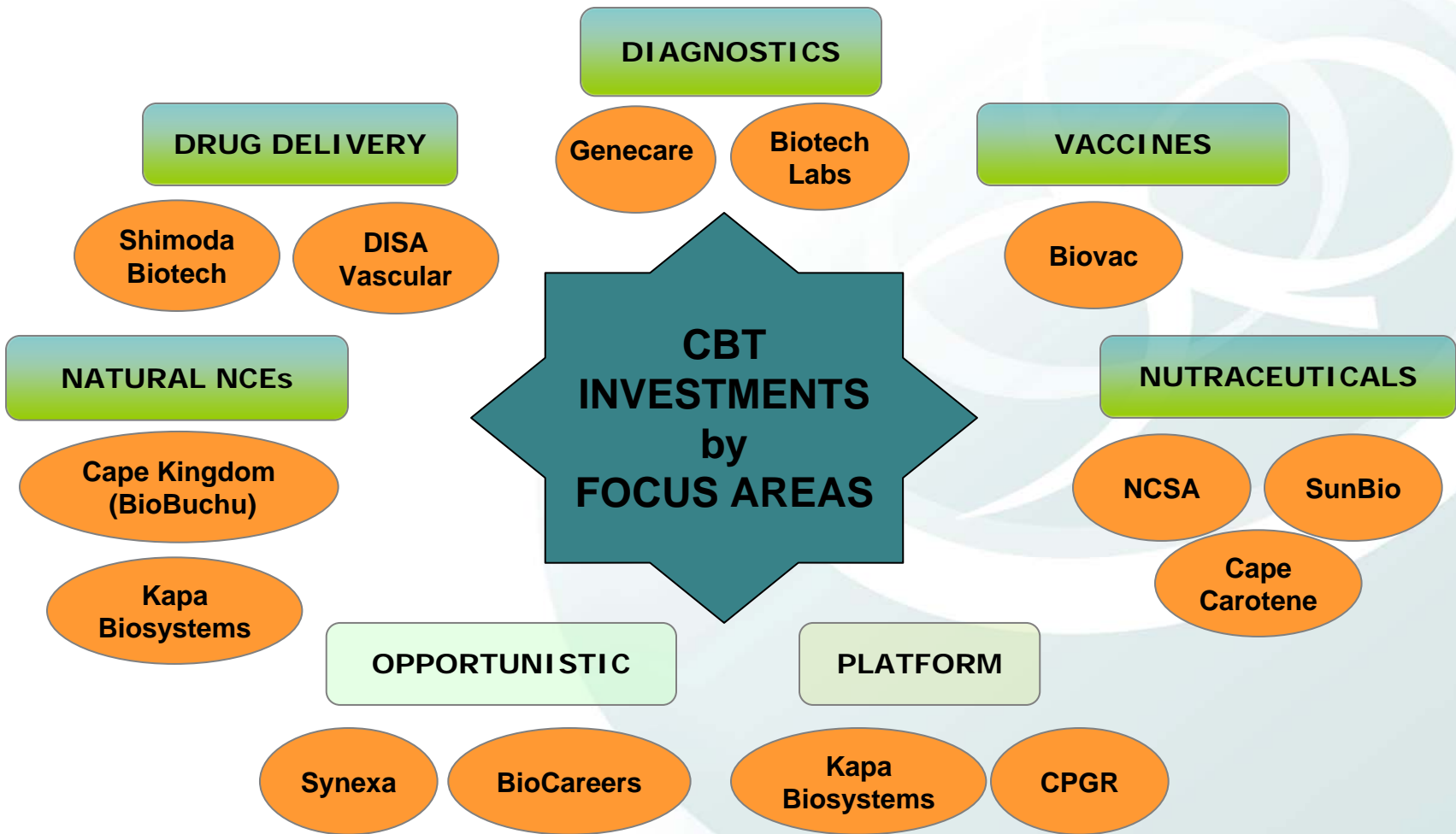
CBT Processes: Positioning



CBT Processes: Stage-gate



CBT Projects: Current portfolio (split by 5 focus areas)



CBT projects

DRUG DELIVERY

Shimoda:

Drug delivery via Poly Ethylene Glycol, with focus on cancer drugs.
Buy-out by European firm

Disa Vascular:



Drug-eluting stents, with some advantages over existing products through the release mechanism

CBT projects

NATURAL NCEs

Cape Kingdom:

Development of *natural medicines* (anti-inflammatory, anti-infective, anti-fungal, anti-cancer) from local flora.

E.g. Extract from the Buchu plant, sold OTC as a 'traditional medicine'.

Next steps identification & characterization of the active molecules, Investigative New Drug (IND) route?



Kapa Biosystems:



Research, development & manufacture of novel molecular enzymes & bio-prospecting



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CBT projects

DIAGNOSTICS

Biotech Labs:

Rapid near-point-of-care diagnostic for TB.

In-sourced technology from UK-based firm (equity participation by UK firm).

Genecare:

Genetic testing.

Pre-disposition to disease (e.g. CVD; breast cancer).



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CBT projects

VACCINES

Biovac Institute:

Local filling & packaging plant.

PPP plus Cuban shareholding (!)

Local vaccine R&D (5 in one).



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CBT projects

NUTRACEUTICALS

National Carotene South Africa (NCSA)

Beta Carotene

Algal production using pond system (geographical advantages)

Accepted onto global market



Cape Carotene: CAPECAROTENE

Production of natural Astaxanthin, a powerful organic antioxidant & colourant.

Feed supplement for fish (farm reared & ornamental) & human nutritional supplement



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CBT projects

OPPORTUNISTIC

Synexa Lifesciences:

Development of novel bioprocess technologies, production of biological small molecules (low volume/high value) & specialized bio-analytical services

BioCareers:

Career website dedicated to biotech careers



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CBT projects

PLATFORMS

Centre for Proteomics and Genomics Research:

Use and offering of array and gene chip technologies.

96 projects since inception during 2007

Molecular diagnostics

KapaBiosystems:

Bioprospecting



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Gaps

- Collaboration around specific projects
 - Technology partners
 - Market access partners
- Human capacity: skills and know-how in biotech start-ups
 - Bio-commercial skills to augment strong skills base
 - Partnering around mentorship
- Integrating commercial and marketing focus early on in the innovation process
 - Biotech Innovation Centres' key role



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Thank You

Questions & Discussion



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CBT products & services matrix

CBT'S FULL PRODUCT OFFERING	Description	STAKEHOLDER GROUP				
		HEIs (+TTO)	HEIs (no TTO)	Spin out	Start up	Growth Co.
1. Funds						
• Seed fund	Business case/plan development	✓	✓	✓	✓	
• Grant	Platforms only					
• Full equity	Special cases only			✓	✓	✓
• Equity + shareholder's loan	Preferred financing instrument	✓	✓	✓	✓	✓
2. Resources						
• Micro-patent	Patent searches	✓	✓	✓	✓	✓
• Frost & Sullivan	Market research	✓	✓	✓	✓	
• Legal	Contracting	✓	✓	✓	✓	
• Financial	Accounting, budget,	✓	✓	✓	✓	
• Business	Strategy, mentorship	✓	✓	✓	✓	
3. Business Mentorship & Coaching						
• Product and business development	Product & business development processes	✓	✓	✓	✓	
• Bio-entrepreneurship skills development	Entrepreneurial, commercialisation & professional management	✓	✓	✓	✓	
• Virtual business warehouse facility	Financial, business, IP, legal & technical support					
4. Facilitate Networking & Partnership Building						
• BioBuz	Networking	✓	✓	✓	✓	✓
• Bio2Biz	Networking	✓	✓	✓	✓	✓
• Other seminars, forums and events	Knowledge management	✓	✓	✓	✓	✓
5. Venture Assessment						
• 75 point criteria for business	CBT Assessment of business case	✓	✓	✓	✓	
6. Innovative venture development management						
• via stage gate model	To mitigate risk	✓	✓	✓	✓	✓
7. Leveraging BICs/DST resources						
• Co-investment with other BICs and organisations		✓	✓	✓	✓	✓
• DST support for platforms		✓	✓	✓	✓	



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