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Global Cleantech Innovation Programme for SME's in SA

Green Innovation for Sustainability: Supporting small business with great ideas

PRESENTATION SUMMARY

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PRESENTATION SUMMARY:

- 1) Background & (Inter)National Context
- 2) Global Cleantech Innovation Index (GCII)
- 3) Entrepreneurship Policies in SA
- 4) SA Innovation & CT Policy Landscape
- 5) Entrepreneurship Lifecycle
- 6) Support Structures in SA
- 7) Barriers & Policy Challenges in SA
- 8) Key Recommendations
- 9) Conclusions



BACKGROUND & NATIONAL CONTEXT

- Environmental damage, climate change & COP outcomes
- Energy and water access
- Quality of natural resources

- Clean technology/innovation
- New business models and circular economy methods
- New financial models/venture capital

- Innovation value chain -> new ideas/tech/problem solving



Global Cleantech Innovation Index (GCII)

- Measures inputs vs outputs of innovations
- **Inputs:** entrepreneurship culture, government policies & regulations, access to finance, ease of doing business.
- **Outputs:** Evidence of Cleantech emergence, revenue & investments.
- Creation of demand in the market
- Adapting nationally to how Cleantech shapes innovation value chain.

South Africa ranks 37/40 on the GCII.

Key Aspects of Entrepreneurship Policies that positively impact on economic growth & job creation

Entrepreneurship Promotion

- Entrepreneurship:**
- Awareness & culture
 - Training & Education
 - Business Mentoring & Coaching
 - Networking Initiatives

Access To Finance

- Debt & Equity Finance**
- Seed Funding
 - Start-up grants & loans
 - Venture capital support programmes
 - Angel finance
 - Investment readiness
 - Loan guarantees

Framework Conditions & Policies

- Ease of business regulations
- Tax Policy
- Competition Policy
- Technology Policies

Target-Group Policies



RECENT GLOBAL ENTREPRENEURSHIP POLICY TRENDS: *SOUTH AFRICA TO CAPTURE LEARNING*

- Improving access to debt and equity finances – credit guarantee options.
- Equity financing stimulated
- Promotion of foreign venture capital investment
- Creation of public-private co-investment funds for private investment
- Entrepreneurial cluster development - business accelerator programmes in knowledge-intensive sectors:
 - (life sciences & ICT) and clean technology



- Entrepreneurial support fostering entrepreneurial culture, start-up grants and technology transfer.
- Focusing on high-growth-innovative firms for export markets.
- Grant-based schemes for young innovative firms to subsidise R&D expenses, IP, and research facilities.
- **Simplifying** business registrations.
- Youth and women entrepreneurship – credit lines



INSIGHTS ON INNOVATION & CT POLICY LANDSCAPE - SOUTH AFRICA:

- South Africa:
 - extensive Cleantech-supportive policy environment
 - funding and incentives directed at specific sub-sector innovation.
- Green growth is part of 6 national development strategies.
- South Africa has all 8 important Cleantech-supporting policies as per Global Cleantech Innovation Index (GCII).
- South Africa is an active participant in global climate change mitigation.



FAVOURABLE CLEANTECH-SUPPORTING POLICY INSTRUMENTS

No	Policy Instrument	No.	Policy Instrument
1.	Carbon tax/ Carbon Market	5	Transport obligation; Transportation efficiency or emissions standards
2	Clean energy tax incentives; Tax incentives specifically for clean technology companies	6	Renewable energy standard and/or feed-in tariffs; Electric utility quota obligation
3	Green bonds; government-backed or -owned green investment banks; green investment funds.	7	Government tendering/ green procurement
4	Government investment/loans/grants for climate-friendly and eco-friendly technology	8	Research institutes or government support university programs for clean technologies



Entrepreneurial Life Cycle

- **Stand-Up:**
 - Attitude (mind-set, risk taking nature, perseverance) & Skills (Job related, behaviour)
 - Culture (Support in entrepreneurial ecosystem)
- **Start-Up:**
 - Access to capital (private/public)
 - Regulatory & policy framework (licencing, patenting, taxation)
 - Business model/validation process
- **Scaling Up (Road to sustainable growth)**
 - Enabling the business to scale
 - Building competitive capability & capacity & Collaborative partnerships
 - Creating growth & jobs

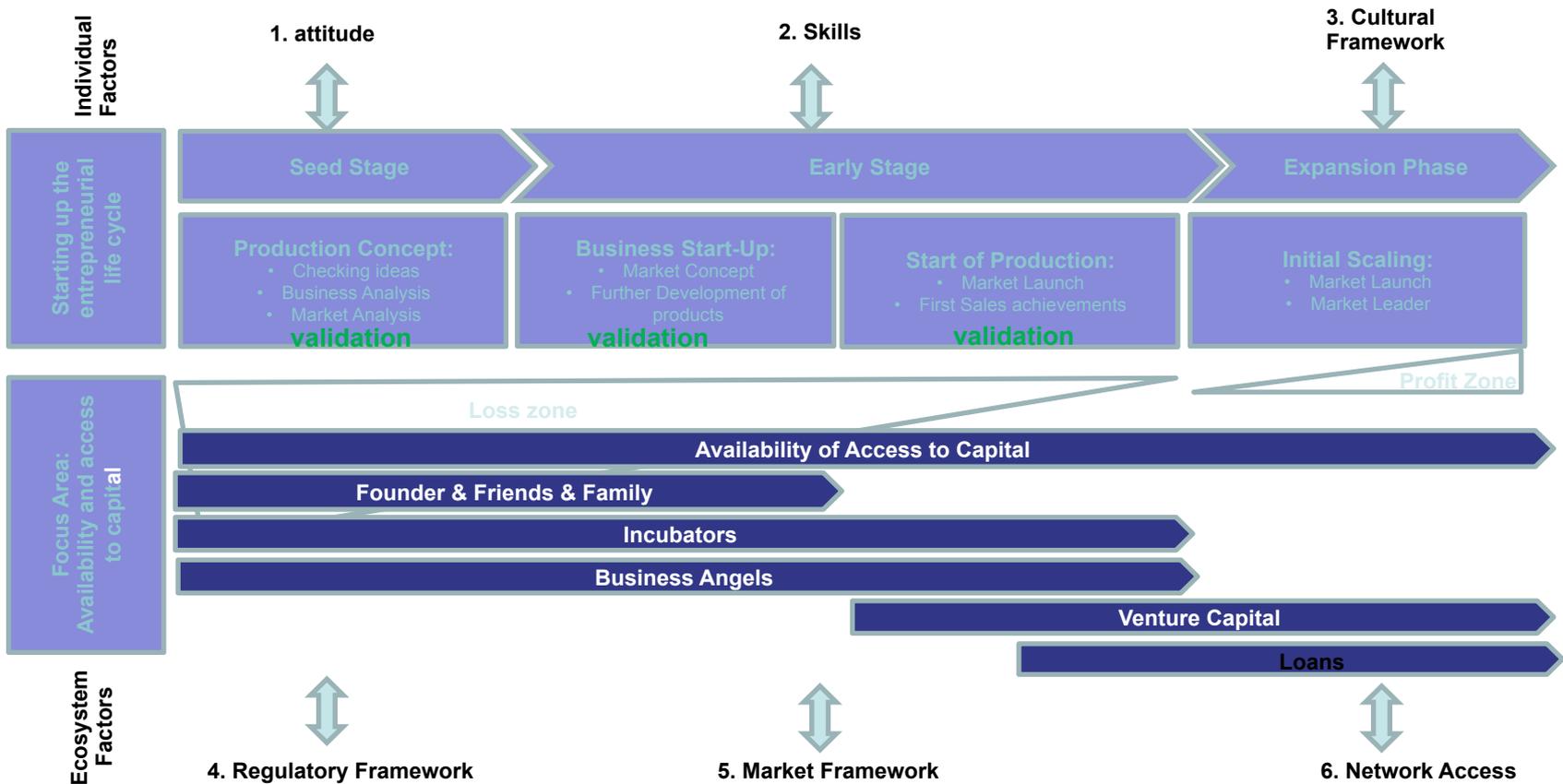


Key Elements include:

- ❑ **FOCUS** (Identify & Invest in momentum-building initiatives)
- ❑ **CONNECT** (link to relevant sector database; network of initiatives and programmes for entrepreneurs – link to other actors in innovation chain)
- ❑ **PARTNER** (build on enabling partnerships and collaborate across provinces, sectors and relevant businesses to achieve scale)

SUPPORTING INNOVATION-DRIVEN ENTREPRENEURSHIP Start-Up's

(Source: Project Team, based on financing stage OECD)





KEY FINANCIAL SUPPORT MECHANISMS FOR CLEANTECH ENTREPRENEURS/START-UPS

- South African national and regional public finance structures:
- Department of Environmental Affairs' Green Fund), regional funds (e.g. Cape Capital Funds) and general SME-support schemes.
- Loans, grants, seed- and growth stage investments to Cleantech start-ups.
- USD\$172 million National Treasury Green Fund channels funding.
- Department of Trade & Industry, Small Business Development Agency and the Renewable Energy and Energy Efficiency Partnership.
- DEA's Green Fund - 2355 direct jobs in 55 projects, (R&D stage + active investments)



Identifiable Financial Barriers for Cleantech Entrepreneurs

- Green funding for high-risk R&D technology innovation (Green Fund & TIA's Seed Fund)
- Enabling and Emerging Technologies boosted by high R&D in HEIs & science councils.
- Lack of validation concerning correct legal practice.
- Lack clarity on financial incentives offered by government/FI's.
- Discouraged to apply for funding due to complex bureaucracy/criteria/cost of admin.
- Lack of understand the modalities of funding along the innovation chain = wasted efforts.
- Lack of interaction between innovators and potential investors = disconnect in industry.
- Venture Capital is in decline to avert economic risk.
- Commercial bank loans are too traditional.



IDENTIFIABLE CLEANTECH INNOVATION ENTREPREURSHIP POLICY CHALLENGES

- Despite incentives and funding, entrepreneurship remains low.
- Lack of coordination/communication between government departments/agencies.
- South Africa shows very little evidence of commercial Cleantech success.
- Low evidence of patent filing.
- Private Equity investors are risk averse.
- Over-Emphasis on public R&D in the creative space = neglect of innovation value chain.
- Unique characteristics of clean technologies (high risk, capital intensity and long timelines) do not align with South Africa's overly-traditional investment models.

MITIGATION:

- Minimise red tape.
- Eliminate onerous labour regulations, labour disruptions and slow service.
- Effectively address corruption - make the market place attractive.
- Enable citizens to be employable – SME's struggle to find competent workers.



KEY RECOMMENDATIONS

- Engage all relevant stakeholders – Implement policy recommendations holistically and systemically:
 - Align Clean Technology goals, policies, capacity and implementation models
 - Communication -> Government Departments
 - Coherence in Government Communications – Policy and Incentive Programmes.
 - Alignment of financial and incentive models.
 - Integrate international best practice with local context.
 - Cabinet Oversight Committee over the entire S&T system.
 - Provide prudent funding; relevant research.
 - Promote culture of competitiveness and innovation.
 - Funding that matches SME needs, realistically.
 - Leverage off digital platforms.
 - One-stop-shop for Cleantech and Innovation Funding.



CONCLUSION

- SA needs non-traditional investment/funding models and unconventional business support mechanisms.
- Coherent, proactive intergovernmental collaboration - address critical challenges.
- **Its all about the Entrepreneur!**
- Entrepreneurship creates jobs, maintains economic development.
- Success = commercialisation, and competitive clean technology entrepreneurs!