Western Cape Government

FOR YOU

top EMPLOYER SOUTH AFRICA 2024

CERTIFIED EXCELLENCE IN EMPLOYEE CONDITIONS

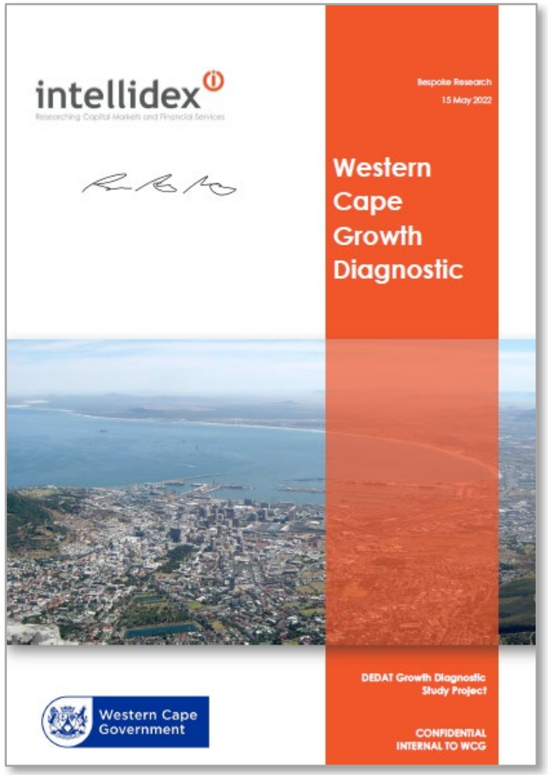
Department of Economic Development and Tourism

Growth for Jobs Strategy & Technology and Innovation Priority Focus Area

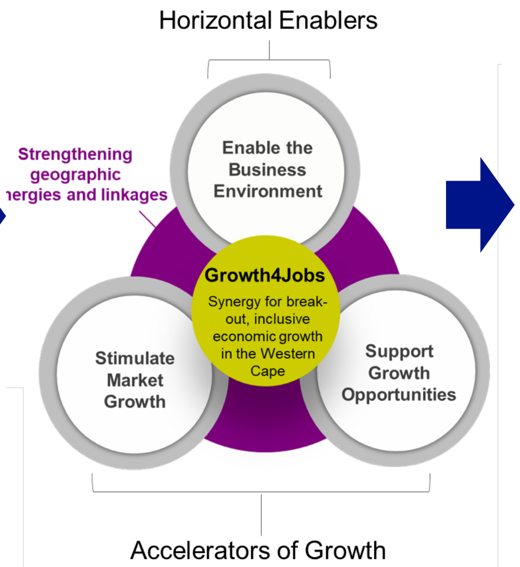
Cape Town Tech Transfer Week

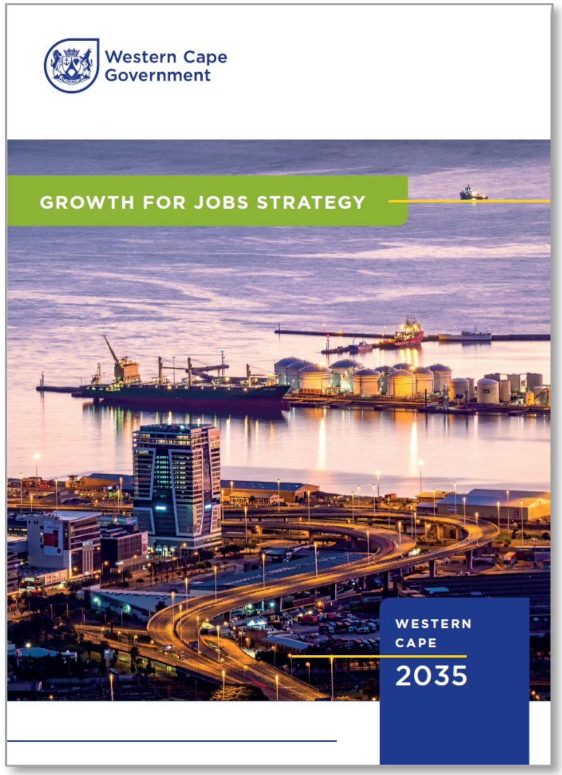
24 October 2024

Growth for Jobs: The journey

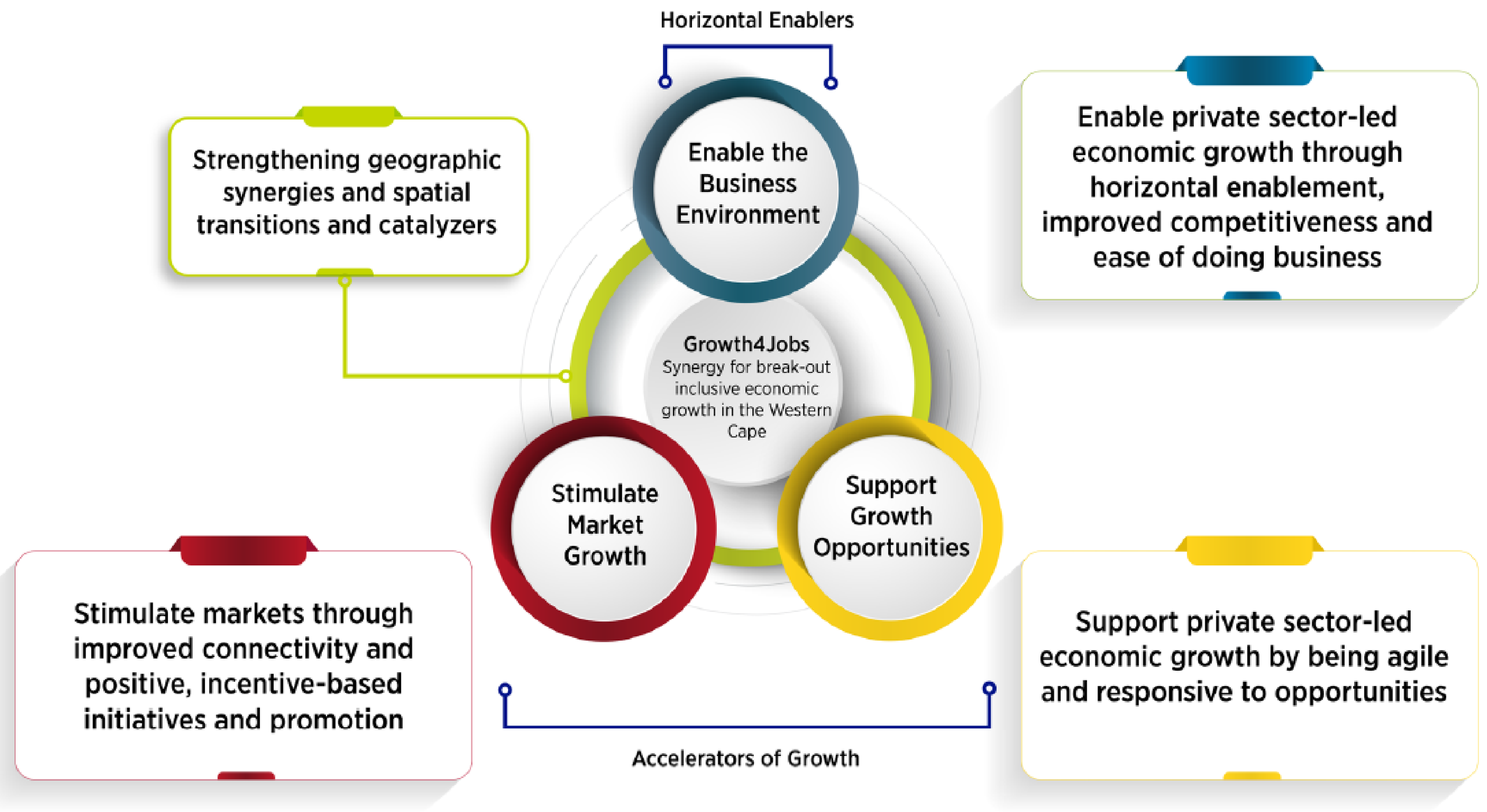


Key pillars of the framework



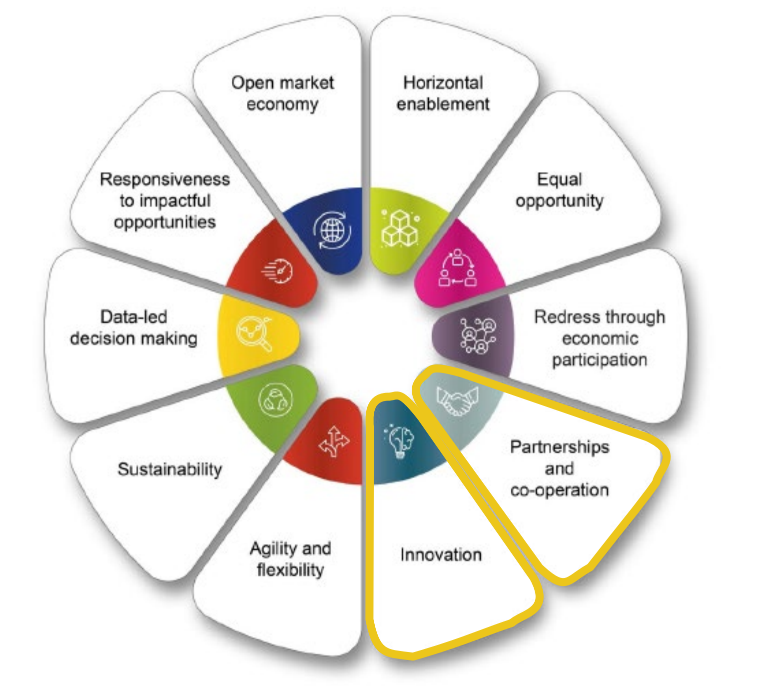


Growth for Jobs: Key pillars of the Strategic Framework



Growth for Jobs: Strategic principles, vision and goal

Strategic principles: The Growth for Jobs Strategic Framework supports economic growth for job creation that favours….



Vision: A provincial economy that achieves break-out economic growth, resulting in sufficient employment and opportunity and an economy that is sustainable, resilient, diverse and thriving – generating confidence, hope and prosperity for all.

Goal: By 2035, the Western Cape will be a R1-trillion inclusive economy in real terms and growing at between 4% and 6% per annum. This will be achieved through enabling a competitive business environment in which growth is driven through businesses exploiting opportunities.

Growth for Jobs: Priority focus areas

Growth for Jobs: DEDAT's Mission

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To be an economic leader, influencer and contributor in driving economic growth for jobs, enabling businesses to thrive in the Western Cape.

Role of DEDAT in the innovation ecosystem

Supporter and promoter of innovation

- Establishing incubators in ways that draw wisely on available expertise; and
- Promoting local industry while attracting innovative businesses from elsewhere in areas related to regional areas of concentration.

Enabler of innovation

- Offering business incentives for innovation businesses; and
- Using its influence at the other two levels of government to secure the best possible conditions for businesses developing in the region.

User of innovation

- Use the ‘challenge’ methodology to attempt to address complex challenges.

Creator of innovation

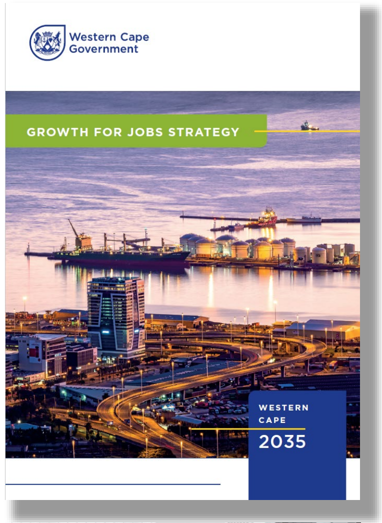
- Building an innovation culture within the regional government departments, aimed at improving service.

Collaborator in innovation

- Developing dynamic networks among academia, business, government, and civil society to promote mutual respect, cooperation, and troubleshooting.
- Establishing initiatives for sharing information, knowledge, and data among stakeholders.

The Technology & Innovation PFA

Growth for Jobs: The Technology and Innovation PFA



Objective statement

The Western Cape is the tech, start-up and venture capital and innovation and design capital of Africa, through robust business, government and community innovation (supported by academia), with strong technology ecosystems and centres of excellence in a range of industries and opportunities, with a supportive enabling environment, and where the adoption of appropriate technology and accessible innovation leads to an improvement in the Global Innovation Index and the productivity and competitiveness of the regional economy.

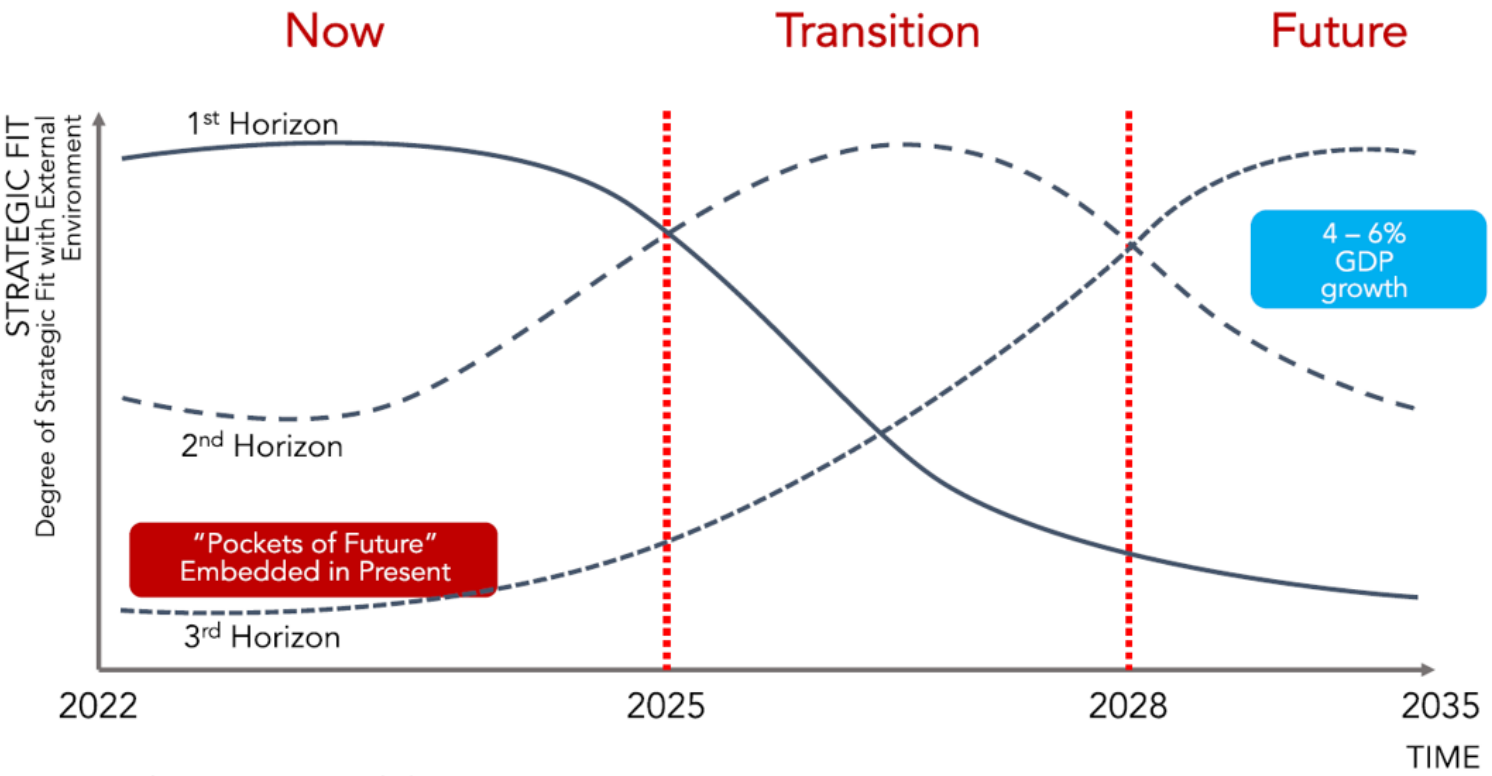
Goal statement

By 2035, research and development expenditure will increase by 300% in real terms, reaching R35bn and Venture Capital deals will total R20-billion.

Why TAI matters?

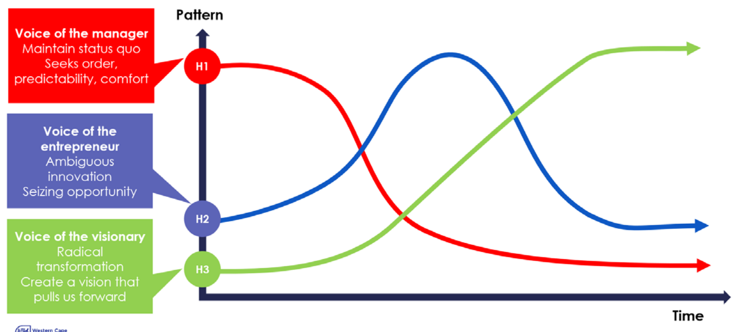
Technological innovation is responsible for 85% of growth and it is a key driver of increased Total Factor Productivity growth and thereby long-term economic growth.

Growth for Jobs: Horizons for implementation



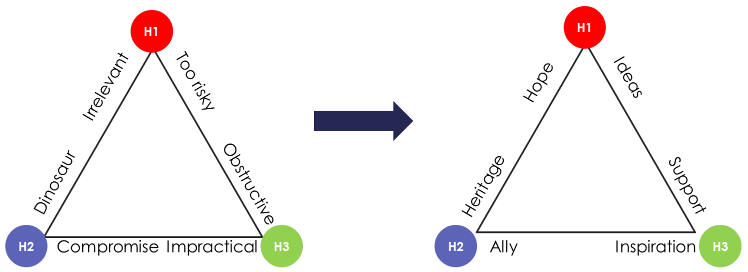
Curry & Hudson, (2008) Seeing on multiple Horizons: Connecting Futures to Strategy
Journal of Futures Studies

The three horizons: Prescriptive or tentative governance



The Three Horizons: The Patterning of Hope by Bill Sharpe

Horizon negative mindsets **Horizon positive mindsets**



Impact 2035

Research and Development expenditure will increase by 300% in real terms, reaching R35bn and Venture Capital deals will total R60bn.

MTSF Outcome 2030

Venture Capital deals will total **R23bn** cumulative by 2030.

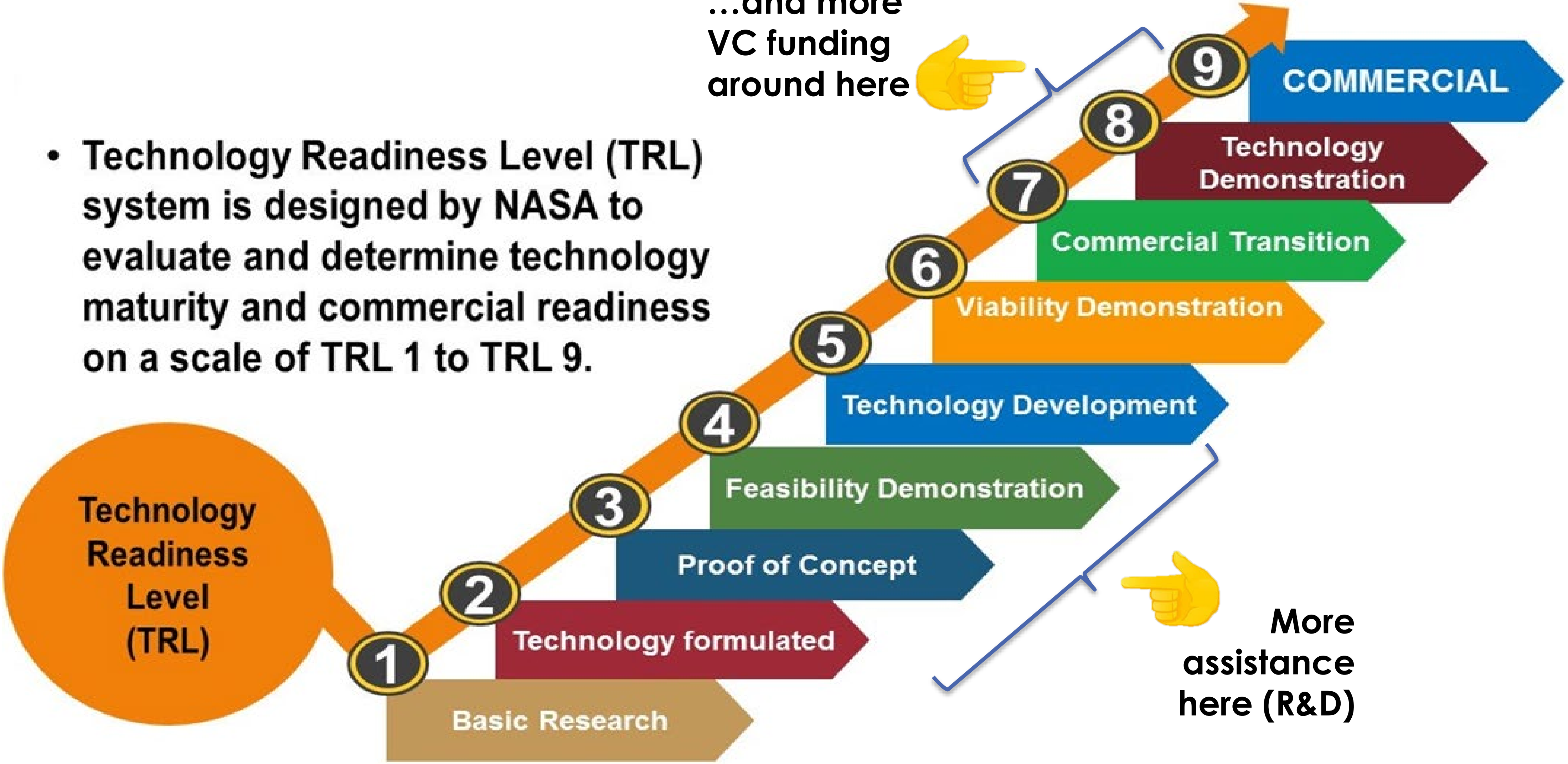
51% increase in R&D expenditure to reach R15bn (in year 5).

DEDAT lead dept Others: DotP, DoA, DEADP. Wesgro (also Mobility, Health, POCs)

Mid-term outcome(s)	**Priority 1:** Increased **R&D** expenditure and value to enable business growth adaptation.	**Priority 2: Increased competitiveness** and **investment (incl VC)** and evident progression of tech start-ups.	**Priority 3: Scaled pipeline** of technology and innovation **skills.**	**Priority 4:** WC **is positioned** and enabled as a hub for **tech, VC, design and innovation.**	**Priority 5:** Improved **culture of innovation** and increased **tech-enabled business productivity** of firms.
Outputs & Project activities	**Work in progress**				

Growth for Jobs | *TAI*: Technology readiness levels

- Technology Readiness Level (TRL) system is designed by NASA to evaluate and determine technology maturity and commercial readiness on a scale of TRL 1 to TRL 9.



…and more VC funding around here

…means more here…

…which means more companies, commerce, profit, taxes and jobs.

More assistance here (R&D)

Another view: Technology, business and marketing readiness levels

<table>
<tr><th>Level</th><th>Technology Readiness Level</th><th>Business Readiness Level</th><th>Marketing Readiness Level</th></tr>
<tr><td>1</td><td>Basic research</td><td rowspan="3">Discovery / invention proven (e.g. in research environment)</td><td>Unsatisfied need identified</td></tr>
<tr><td>2</td><td>Concept formulation</td><td>Assessment of the need</td></tr>
<tr><td>3</td><td>Critical function of proof of concept established</td><td>Identified business opportunity</td></tr>
<tr><td>4</td><td>Validation in the laboratory environment</td><td>Discovery / invention functional (e.g. in a Technology Development Environment)</td><td>Market research</td></tr>
<tr><td>5</td><td>Laboratory scale validation in relevant environment</td><td rowspan="2">Business feasibility validated (e.g. in a technology piloting environment)</td><td>Value proposition</td></tr>
<tr><td>6</td><td>Integrated prototype system verified in operational environment</td><td>Market segments, targeting and positioning</td></tr>
<tr><td>7</td><td>Integrated pilot system demonstrated in operational environment</td><td rowspan="2">New firm / company / business division established.</td><td>Promotion /advertising</td></tr>
<tr><td>8</td><td>System incorporated in commercial design</td><td>Market testing</td></tr>
<tr><td>9</td><td>Proven system and ready for full commercial deployment</td><td>Self-sustaining business operating i.e. viable business.</td><td>Market uptake</td></tr>
</table>

R&D

VC

Western Cape Government

Note: The TAI funds from prototype to technology demonstration (TRL 4-7)

Source: Technology Innovation Agency, 2023

Growth for Jobs| *TAI*: Venture Capital in the Western Cape: Blue sky thinking

Unlocking a *single* substantial domestic pension fund industry to invest only 1% of pension funds into VC funding, could **quadruple** the industry.

Growth for Jobs | *TAI*: Commercialisation of technology

"South Africa ranks the lowest in its ability to use, adopt and adapt frontier technologies in the BRICS grouping of countries, but is ranked the highest out of sub-Saharan African countries in the 2021 and 2023 periods. The **country scores high in its finance and R&D ranking relative to its overall ranking, but low in ICT, skills, and industry rankings**. South Africa further declined by two places in 2023 compared to its performance in the 2021 world rankings."

Selected countries' readiness to use, adopt and adapt frontier technologies equitably

Country name	Total ranking		ICT ranking		Skills ranking		R&D ranking		Industry ranking		Finance ranking	
	2021	2023	2021	2023	2021	2023	2021	2023	2021	2023	2021	2023
USA	1	1	14	11	17	18	2	2	20	16	2	2
Sweden	2	2	1	6	7	2	16	16	15	11	16	18
Germany	9	7	23	24	16	17	5	5	10	12	39	40
China	25	35	99	117	96	92	1	1	7	8	6	4
Russian Federation	27	43	39	32	28	32	11	13	66	54	45	69
Brazil	41	40	73	50	53	55	17	18	42	51	60	57
India	43	46	93	95	108	109	4	4	28	22	76	75
South Africa	54	56	69	71	84	77	39	36	71	67	13	25
Mexico	57	61	68	70	83	73	29	45	33	31	96	96
Mauritius	77	73	83	96	58	57	94	82	74	74	40	34
Egypt	87	83	117	91	67	66	42	47	100	90	116	119
Kenya	105	117	108	120	123	135	78	83	89	93	108	107
Nigeria	124	119	124	119	106	108	74	68	155	157	149	153

Number of countries: 158; Source: UNCTAD Technology and Innovation Report 2021 and 2023

Innovation + technology = inventions => growth

Source: TIA Annual Performance Plan 2024/25

Concluding remark

Contact Us

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Thank you