



Western Cape
Government

Western Cape Department of Agriculture

Management Improvement Plan

The Future of the Western Cape
Agricultural Sector in the context of the
4th Industrial Revolution

Dr Dirk Troskie and Mr Shelton Mandondo
June 2018

**DIAGNOSTIC, IMPACT AND DESIGN EVALUATION OF THE WESTERN CAPE AGRICULTURAL
SECTOR FUTURE IN THE CONTEXT OF THE 4TH INDUSTRIAL REVOLUTION: MANAGEMENT
IMPROVEMENT PLAN**

1. MANAGEMENT RESPONSE ON RECOMMENDATIONS

Recommendation		Record of agreement or disagreement	Reasons for disagreement / Comments
1	1.1 The Western Cape Department of Agriculture's (WCDOA) strategic positioning should align with and support the agri renaissance desired end-state.	Agree	Not applicable
2	1.2 Cooperate with tertiary institutions to develop digital skills and capability in the Agricultural Sector.	Agree	Not applicable
3	2.4 The WCDOA (with agribusiness and the science community) must be jointly accountable for responsibly informing consumers about genetic engineering technologies.	Agree	Not applicable
4	3.1 With suppliers and scientists, the WCDOA and producers should aggregate and disseminate information in a transparent, open-source and equitable basis, through various agri-forums. The write-up of successful case studies should be encouraged and incentivised	Agree	Not applicable
5	3.2 The WCDoA should lead initiatives for expanding and improving current databases. Important agricultural data should become part of a shared information platform that facilitates the collation and use of information in the sector (OEM data to be publicly available).	Agree	Not applicable
6	3.3 The WCDoA must support the sharing of knowledge related to agricultural technologies and associated supporting systems, establish technology demonstration farms, conduct trials on the farms of existing participating farmer across the value chain, and share this information on a variety of platforms that are easily accessible to all farmers.	Agree	Trials are already run on the seven experiment farms of the Department.
7	3.4 Coordinate the creation of a capacity to develop business cases for investing in technology and verify claims made by commercial suppliers of new technology).	Agree	Not applicable
8	3.5 Together with technology service providers, the WCDoA should investigate options to reduce the cost of acquiring new technology for smallholder farmers	Agree	Not applicable
9	3.6 All role players in the value chain can supply extension services, and be able to demonstrate technologies and communicate their benefits, proper application and system requirements equitably.	Agree	Not applicable

Recommendation		Record of agreement or disagreement	Reasons for disagreement / Comments
10	3.9 Agri-entrepreneurs, investors, the provincial department and industry bodies should collaborate to stimulate entrepreneurship across technologies, using agri-hubs and agri-parks.	Agree	This initiatives should not be limited to formal agri-parks and agri-hubs.
11	3.10 Business and WCDoA should initiate competitions challenges and ideas fairs to stimulate the understanding in the application of 4IR technologies in the 4IR sector. Potential co-operation partners are Silicon Cape, Deloitte and Touché, LaunchLab, Bertha Centre Co-Lab, etc.	Agree	Not applicable
12	4.1 The WCDoA should develop an integrated framework for the on-boarding and development of new entrants into the sector	Agree with principle.	Although this recommendation is supported, it is a separate strategy and not part of the 4IR response plan.
13	4.2 The provincial government, in cooperation with financial institutions, should develop financing schemes that target smallholder farmers. The WCDoA, together with the Department of Rural Development and Land Reform, should facilitate the acquisition of title deeds by individuals or entities or explore other forms of collateral (providing guarantees of land ownership to secure funding); or employ new insurance products such as weather index insurance for smallholder farmers coupled to loan facilities; or explore financing of technologies, by banks; or incentivise larger (mega) farms to offer their farms as collateral for smallholder farmers.	Agree with principle.	Although this recommendation is supported, it is a separate strategy and not part of the 4IR response plan.
14	4.4 Agri-entrepreneurs should be encouraged and supported by the WCDoA and the financial sector to develop crowdfunding platforms and other AgTech propositions aimed directly at developing smallholder commercial farmers	Agree	Not applicable
15	4.6 The department should stimulate the creation of business cases in the domain of the sharing economy and crowdfunding through innovation challenges, idea fairs and competition.	Agree	Not applicable
16	5.1 Cooperate with industry associations and academic institutions to formulate a narrative and marketing strategy for attracting future young talent to the sector premised on the 4IR.	Agree	Offering bursaries to youth for agri scarce and critical skills gearing them for the 4IR
17	5.2 WCDoA should cooperate with tertiary institutions and industry associations in the province to implement agri-accelerator	Agree	Aligning of own EATI curriculum and human capital

Recommendation	Record of agreement or disagreement	Reasons for disagreement / Comments
development programmes (fast-track learning) through skills exchange programmes to and from global territories that are leading in agricultural technology innovation.		development programmes in accordance with 4IR Not applicable

2. IMPROVEMENT OBJECTIVES

Recommendation 1	1.1 The Western Cape Department of Agriculture's (WCDOA) strategic positioning should align with and support the agri renaissance desired end-state.
Recommendation 17	5.2 WCDoA should cooperate with tertiary institutions and industry associations in the province to implement agri-accelerator development programmes (fast-track learning) through skills exchange programmes to and from global territories that are leading in agricultural technology innovation.
Improvement Objective 1:	Embed agri renaissance in the Western Cape as the desired end state of the 4 th Industrial Revolution.

Recommendation 4	3.1 With suppliers and scientists, the WCDOA and producers should aggregate and disseminate information in a transparent, open-source and equitable basis, through various agri-forums. The write-up of successful case studies should be encouraged and incentivised
Recommendation 5	3.2 The WCDoA should lead initiatives for expanding and improving current databases. Important agricultural data should become part of a shared information platform that facilitates the collation and use of information in the sector (OEM data to be publicly available)
Recommendation 6	3.3 The WCDoA must support the sharing of knowledge related to agricultural technologies and associated supporting systems, establish technology demonstration farms, conduct trials on the farms of existing participating farmer across the value chain, and share this information on a variety of platforms that are easily accessible to all farmers.
Recommendation 7	3.4 Coordinate the creation of a capacity to develop business cases for investing in technology and verify claims made by commercial suppliers of new technology).
Recommendation 8	3.5 Together with technology service providers, the WCDoA should investigate options to reduce the cost of acquiring new technology for smallholder farmers
Recommendation 9	3.6 All role players in the value chain can supply extension services, and be able to demonstrate technologies and communicate their benefits, proper application and system requirements equitably.
Recommendation 10	3.9 Agri-entrepreneurs, investors, the provincial department and industry bodies should collaborate to stimulate entrepreneurship across technologies, using agri-hubs and agri-parks.
Recommendation 14	4.4 Agri-entrepreneurs should be encouraged and supported by the WCDoA and the financial sector to develop crowdfunding platforms and other AgTech propositions aimed directly at developing smallholder commercial farmers
Improvement Objective 2:	Accelerate responsible technology adoption in the Western Cape Agricultural Sector.

Recommendation 2	1.2 Cooperate with tertiary institutions to develop digital skills and capability in the Agricultural Sector.
Recommendation 16	5.1 Cooperate with industry associations and academic institutions to formulate a narrative and marketing strategy for attracting future young talent to the sector premised on the 4IR.
Improvement Objective 3:	Develop young people to embrace the 4 th Industrial Revolution in support of agricultural development.

Recommendation 3	2.4 The WCDOA (with agribusiness and the science community) must be jointly accountable for responsibly informing consumers about genetic engineering technologies.
Recommendation 11	3.10 Business and WCDoA should initiate competitions challenges and ideas fairs to stimulate the understanding in the application of 4IR technologies in the 4IR sector. Potential co-operation partners are Silicon Cape, Deloitte and Touché, LaunchLab, Bertha Centre Co-Lab, etc.
Recommendation 15	4.6 The department should stimulate the creation of business cases in the domain of the sharing economy and crowdfunding through innovation challenges, idea fairs and competition.
Improvement Objective 4:	Reposition perceptions of agriculture in the context of the 4 th IR

3. IMPROVEMENT PLAN

Improvement Objective 1:		Embed agri renaissance in the Western Cape as the desired end state of the 4th Industrial Revolution.						
Output	Priority	Activity	Deliverable	Person	Deadline	Budget available	Progress	
1.1 Align the WCDoA's strategic positioning to the opportunities and threats of the 4th Industrial revolution.		1.1.1	Present the implications of the 4th IR at Extended Management	Presentation	Dr DP Troskie	11/06/2019	Internal	Completed
		1.1.2	Discuss the implications of the 4th IR in the Department's service delivery	Response plan	Dr DP Troskie	30/07/2081	Internal	Scheduled to be discussed at Extension Symposium.
		1.1.3	Include the 4th IR in the WCDoA's strategic discussions	Response plan	DR DP Troskie	30/07/2081	Internal	Scheduled to be discussed at Department's Strategic Session
		1.1.4	Include the implications of the 4th IR in the WCDOA's Annual Performance Plan.	Printed Annual Performance Plan (APP)	Dr DP Troskie	30/08/2018	Internally sourced	
		1.1.5	Include the implications of the 4th IR in the WCDOA's Strategic Plan (SP) for 2020/21 – 2025/30.	Printed Strategic Plan of the WCDoA	Dr DP Troskie	30/04/2019	Internally sourced	
		1.1.6	Implement the Actions as embedded in the SP	As per implementation Plan	As per implementation plan	As per implementation plan	As per implementation plan	

Improvement Objective 1:		Embed agri renaissance in the Western Cape as the desired end state of the 4th Industrial Revolution.					
Output	Priority	Activity	Deliverable	Person	Deadline	Budget available	Progress
1.2 Create a platform in the Western Cape for engagement on 4th IR matters		1.2.1	Establish mechanism for engagement	Dr DP Troskie	31/10/2018	Internal	
		1.2.2	Explore possibilities for national and international cooperation.				
				Dr DP Troskie	31/12/2018	Internal	

Improvement Objective 2:		Accelerate technology adoption in agriculture						
Output	Priority	Activity	Deliverable	Person	Deadline	Budget available	Progress	
2.1 Engage stakeholders on matters identified as to be led, coordinated, supported, collaborated upon or investigated.		2.1.1 Engage in the platform to be established in 1.2.1	Stakeholder engagement	Dr DP Troskie	31/12/2018	Internal		
		2.1.2 Develop provincial response on relevant matters	Response plan	Agricultural Sector	31/12/2018	Internal		
		2.1.3 Implement provincial 4 th IR response plan.	As per implementation Plan	As per implementation plan	As per implementation plan	As per implementation plan		

Improvement Objective 3:		Develop young people to embrace the 4th Industrial Revolution in support of agricultural development.						
Output	Priority	Activity	Deliverable	Person	Deadline	Budget available	Progress	
3.1 Adapt the curriculum of the Eisenburg College to prepare students for the 4th IR.		3.1.1 Create a safe space for students to experiment with drones	Safe space demarcated	Ms L Schuurman	30 June 2018	Internal		
		3.1.2 Develop a curriculum to incorporate 4th IR technologies in the curriculum	Plan	Ms L Schuurman	31/12/2018	Internal		
		3.1.3 Implement curriculum to prepare students for the challenges and opportunities presented by the 4th IR	As per implementation Plan	As per implementation plan	As per implementation plan	As per implementation plan		
3.2 Cooperate with tertiary institutions to prepare the Western Cape Agricultural sector for the 4th IR		3.2.1 Engage in the platform to be established in 1.2.1	Implementation plans at various institutions.	Ms L Schuurman	31/12/2018	Internal		
		3.2.2 Enter into an agreement with the Co-lab for e-inclusion at the UWC	Implementation agreement in place		30/07/2018	Internal		
		3.2.3 As per implementation Plan	As per implementation plan	As per implementation plan	As per implementation plan	As per implementation plan		

Improvement Objective 4:	Reposition perceptions of agriculture in the context of the 4th IR
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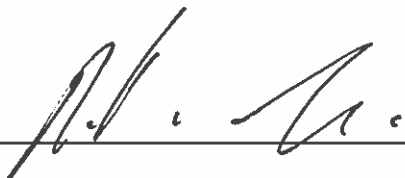
Output	Priority	Activity	Deliverable	Person	Deadline	Budget available	Progress
4.1 Consumer information strategy		4.1.1	Engage in the platform to be established in 1.2.1	Dr DP Troskie	31/12/2018	Internal	
		4.1.2	Develop a provincial response on relevant matters	Agricultural Sector	31/12/2018	Internal	
		4.1.3	Implement provincial 4 th IR response plan.	As per implementation plan	As per implementation plan	As per implementation plan	
4.2 Explore the possibilities of competition or challenges for producers or consumers in the 4 th IR environment.		4.2.1	Engage in the platform to be established in 1.2.1	Dr DP Troskie	31/12/2018	Internal	
		4.2.2	Develop a provincial response on relevant matters	Agricultural Sector	31/12/2018	Internal	
		4.2.3	Implement provincial 4 th IR response plan.	As per implementation plan	As per implementation plan	As per implementation plan	
4.3 Develop business cases for the implementation of 4 th IR technologies		4.3.1	Engage in the platform to be established in 1.2.1	Dr DP Troskie	31/12/2018	Internal	
		4.3.2	Develop a provincial response on relevant matters	Agricultural Sector	31/12/2018	Internal	
		4.3.3	Implement provincial 4 th IR response plan.	As per implementation plan	As per implementation plan	As per implementation plan	

4. COMMUNICATION PLAN

Target audience	Message	Purpose	Media vehicle	Deadline	Person	Budget available	Progress
Decision makers	4 th IR diagnostic report completed	Present recommendations	Report distribution	30 June 2018	Dr Troskie	N/A	In progress
People in the Department	Management response on recommendations	Alignment to APP and Strategic plan	Emails and meetings	31 July 2018	Dr Troskie/ Mr Mandondo	N/A	In progress
Stakeholder clients	4 th IR diagnostic report completed	Present recommendations	Public release, meetings and Emails and WCDoA publications	30 August 2018	All WCDoA Programme Managers	N/A	
Other departments	4 th IR diagnostic report completed	Identify areas for interventions and or to support	Emails and meetings, and public release	30 August 2018	Dr Troskie/ Mr Mandondo	N/A	In planning stages
General public	4 th IR diagnostic report completed	Reposition the agricultural sector's brand for the 4 th IR	Public press release; WCDoA publications	30 November 2018	All WCDoA Programme Managers	N/A	In planning stages
Academic environment	4 th IR diagnostic report completed	Reposition the agricultural sector's brand for the 4 th IR	Public press release, emails and WCDoA publications	On going	All WCDoA Programme Managers	N/A	In planning stages

5. SIGNOFF

It is recommended that this Management Improvement Plan is implemented



PROGRAMME MANAGER:



DATE

APPROVED / NOT APPROVED




**MS JS ISAACS
HEAD OF DEPARTMENT**



DATE