



## Sustainable Farming in Water Scarce Areas

Genes from South African indigenous flora confer drought resistance on crops

- Climate change and water scarcity are impacting sustainability of farming globally
- 70% of decrease in crop productivity from plant stresses such as drought
- UCT technology “switches on” when plants experience stress
- Maize is first food crop going into field trials



## Optimal Electricity Distribution

An innovative approach to optimise electricity distributed over large electricity networks

- Get more energy from the current infrastructure by reducing losses
- Simple integration into existing networks
- Power optimally injected into, or withdrawn from, the grid
- Improved network management and efficient integration of wind and solar farms

## Abalobi – Sustainable & Empowered Small-Scale Fishing

Co-designed and fisher-driven mobile apps ‘from hook to cook’.

- Digitised monitoring of small-scale fishing sector
- Enabling tool for policy implementation
- Promoting stewardship & co-operative fisheries governance
- Marketplace connecting fishers directly to supermarkets and restaurant



## Impact Through Sustainable Innovation

## Hydrogen Fuel Cell Industry

National initiative to benefit South African platinum resources and develop a new industry sector

- Creation and production of new platinum-based catalysts
- Innovation in fuel cell components through novel designs, materials and manufacturing
- Increased power and durability in smaller and more cost effective fuel cells
- Establish globally-focussed renewable energy industry in SA

