

# Waste utilization in the circular economy

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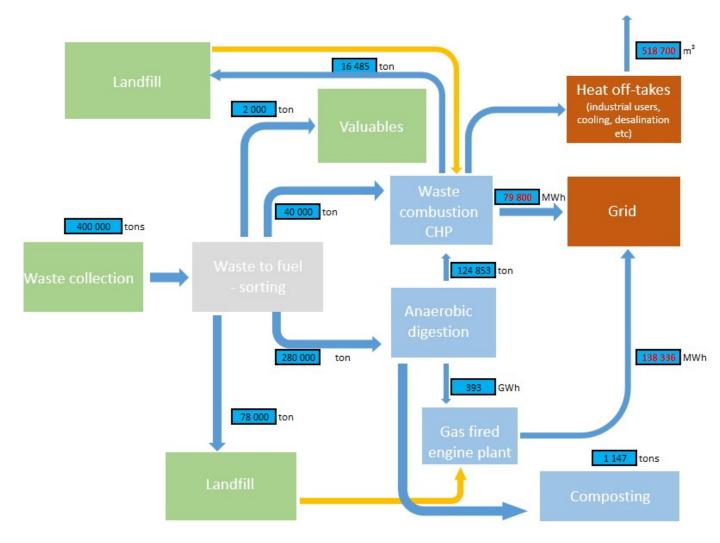
### Basic assumptions going forward

#### Fundamentals need to be in place

- Waste sorting is a must to make use of waste in more efficient way
- We must assume that space and legislation on landfills will tighten so current way of working must change
- Intelligent and well-informed decision-makers should solve the optimization problem of waste minimization in most efficient way
- There are many options available globally to come to the decision above but the following should be observed:
  - Waste to energy is dealing with waste residues
  - Depending on type of waste there are choices: incineration, gasification, combustion
  - Landfilling should be only an option for the ultimate residues: ash and noncombustable materials
  - Instead of trying to do it on your own, you should observe experience and practice of what works elsewhere
- For waste to energy project to work, a reasonable gate fee together with power off-take agreement must be in place **Valmet**

## Snapshop of waste and energy streams

Target: to maximize energy output from waste





## Benefits form Waste to Energy

#### A true win-win solution

#### Economic benefits

- Reduce use of oil and gas in power generation
- Reduce landfilling volume and cost
- Profitable business for investors

#### Social benefits

- Decent job opportunities
- Cleaner cities
- Expand availabily of power
- Potential for clean water
- University cooperation

#### Environmental benefits

- Methane emission reduction
- CO<sub>2</sub> reduction
- Reduce pollution and littering







Huhtamaki

## Broadly serving food on-the-go and food on-the-shelf





# A strong local presence, delivering for our customers, globally – 2020 Figures

**NET SALES** 

€3.3B

**ADJUSTED EBIT MARGIN** 

9.1%

MANUFACTURING UNITS

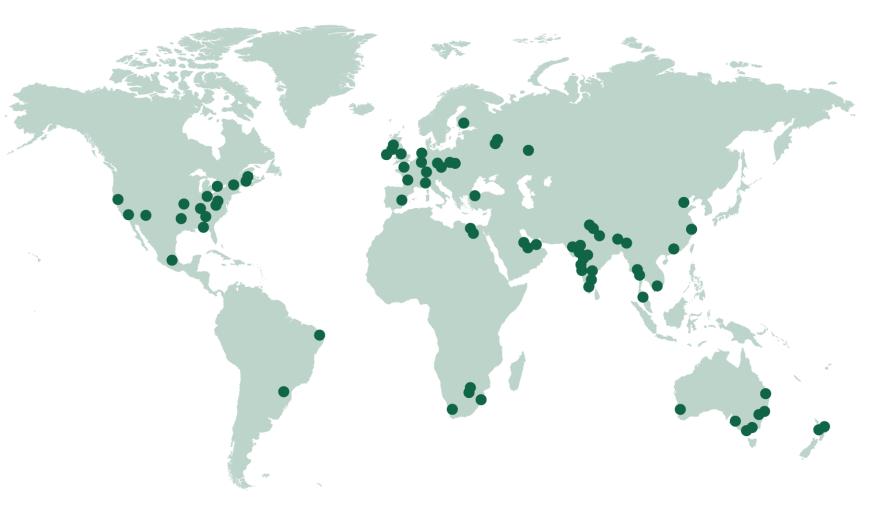
81

**OPERATING COUNTRIES** 

36

**EMPLOYEES** 

18,227





#### Our Global Sustainability Dashboard - Q1 2021

Renewable or recycled materials
(% of total materials)

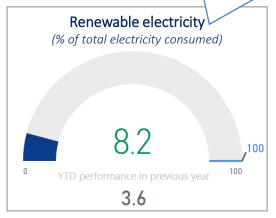
2030
ambition

80

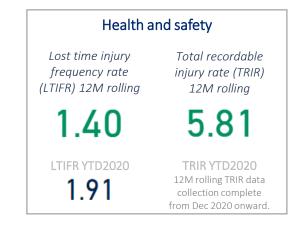
YTD performance in previous year
68.6

Calculation method updated. Now also includes uncertified green electricity.

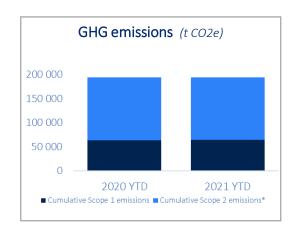
The share of certified renewable electricity was 5.2%



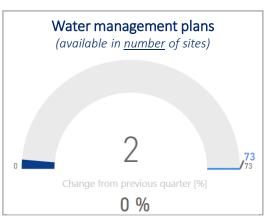












Targets displayed in the graphs are Huhtamaki group's 2030 ambitions; GHG = greenhouse gas





## Our community initiatives address global challenges



Caring immediately: Red Cross

Our donation to the International Red Cross continued to support COVID-19 emergency relief efforts across Asia and Europe

Assistance includes information sharing, hygiene kits, setting up test areas and psychosocial support



## Acting today: Cleaning Mithi River

Earth5R conducts training on waste management and livelihood generation for the local community in India

Cleaning machinery is being installed in the Mithi River



Educating for tomorrow: WasteAid

Education and training on waste management and circular systems in South Africa, Vietnam and India

Local program started with launch webinars

Website launched: Circulareconomynetwork.co



Innovating for the future: FS6 start-up program

Supporting early-stage solutions for a circular economy, via a start-up program run in 2020

Eight entrepreneurs selected as participants, with additional funding granted to three start-ups



#### Circular economy initiative

#### Reverse Vending Project

- 2 x RVM's @ 2 McDonald's locations for 4 months
- Branding to cover each RVM
- McDonald's didgital content to be delivered vie a digital display
- Cup's to be the pilot focus
- Incentive recovery program, to be impelmented (circular coupon, to drive McDonald's sales)
- RVM supplier to maintain RV and collect waste
- Monthly waste statistics reports



# School initiative – Waste Recycling Water Stone Curro Eco Youth Proposal



- Huhtamaki and Lothlorian partnered up to give a full waste proposal to a Curro school
- Incentive program for certain waste streams
- Huhtamaki receive the waste stream we required for operations



We believe in protecting food, people and the planet...

... enabling wellbeing and convenience for people around the world











## Company

- KOMETOS is the world leader in modular and mobile livestock slaughter units, thawing systems and modular fish, seafood and food processing facilities.
- A Private company based in Kauhajoki in Western Finland
- Export focused with 25 years of export sales into Nordic States, Russia, Europe, Eastern Europe, Asia and North American markets.
- All units and equipment are built to EC standards 852/853/854 of 2004 compliant with current EU food and meat hygiene regulations.
- IPS is Kometos technical partner for Sub Saharan Africa and the First Modular unit on the African continent will be installed in Botswana and commissioned in July 2022.
- https://www.kometos.com/home







## **Mobile Applications**

- Commercial Slaughter of cattle and small stock (sheep, goats & pigs) to compliant meat safety standards. Up to a maximum of 30 Cattle units equivalent per day.
- Provide local livestock producers access to slaughter facilities in remote areas where normal commercial slaughter is not possible OR transport costs render the transport of livestock to slaughter unviable.
- Provide livestock farmers with a means to market through the sale of meat rather than livestock, attracting a better value return at source as part of a rural meat value chain development.
- Provide local communities with an additional food safe source of animal protein, slaughtered under controlled conditions, either in the form of carcasses or offal.
- Provide humane and ethical slaughter of animals with traceability of carcasses back to their point of origin.







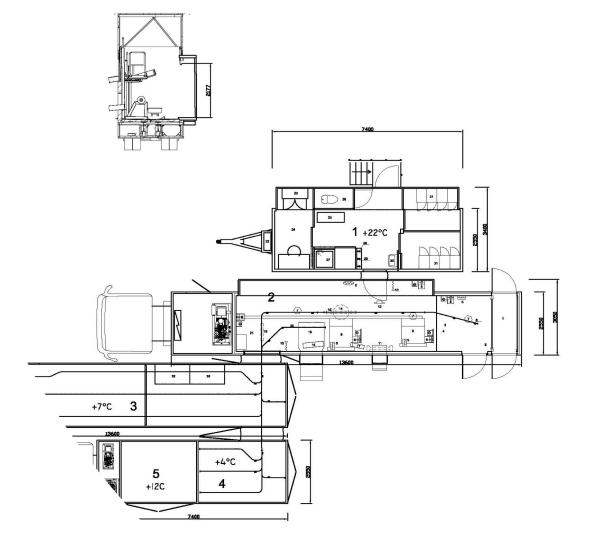




#### Components

- Standard MSU configuration comprises 4 modules
  - Staff & Veterinary unit
  - Slaughter and carcass dressing unit
  - Carcass chilling unit
  - Hides & offal chilling unit
- Other configurations possible based on animal throughput and species.
- Onboard facilities for electrical generation, compressed air, potable water and effluent storage.
- Operates with a total of 6 staff inclusive of meat inspection or Veterinary personnel.
- The slaughter unit uses a Pneumatic lift mechanism to lower stunning box to ground level & to heighten the ceiling to accommodate full height of cattle carcass.









## Mobility

- Fully mobile with the provision (in the 4 module version) of 3 truck drive units which include:
  - 2 x 2 axle semi trailer
  - 1 x 3 axle truck
- Approximately two-hour setup on site is possible
- Can either be used in stand-alone operation OR operates in conjunction with prebuilt docking stations providing lairage, carcass chilling and waste facilities.
- Can operate as part of a hub and spoke network where chilled carcasses are transported back to a central storage and processing facility for further value addition.







### **Latest Developments**

- In August 2021 Kometos's latest & most technically advanced mobile slaughter unit was delivered to France.
- Kometos sets a new benchmark standard for France in terms of ethical handling of animals to slaughter:
  - Animals not subjected to long transport journeys.
  - No transiting through aggregation centers and possible mishandling and stress during travel
  - Animals slaughtered in their natural environment at or close to their place of origin
  - No breakdown of their social group or mixing with other unknown animals
  - Animals not subjected to the sounds and smells of large commercial slaughterhouse operations
  - Slaughter carried out in a humane manner without negligent or handling errors normally prevalent with high throughput facilities.

https://www.leboeufethique.fr/pages/labattoir-mobile







## **Overview of the Western Cape**











#### Past 5 years at Wesgro:



bids secured through Convention Bureau



Attracted Investment of **R11.6 billion** 



Assisted **2 987** companies with export







Published **577** Reports

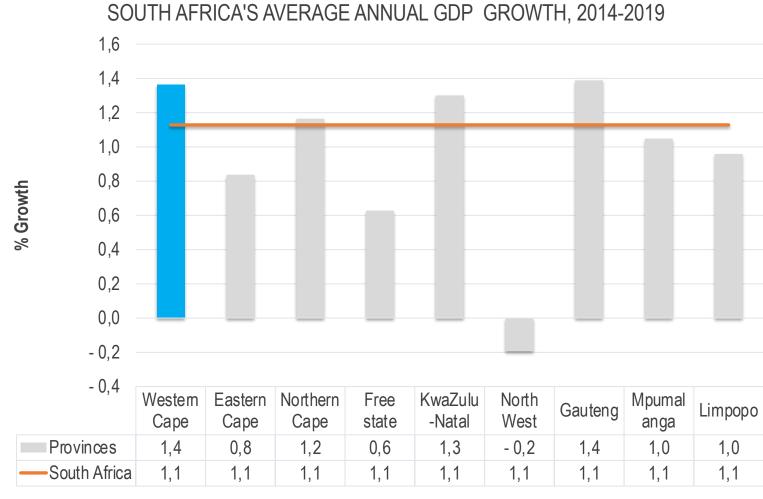


#### **New efforts in challenging times | Missions for 2017/18**





#### The Western Cape, strong relative performance:

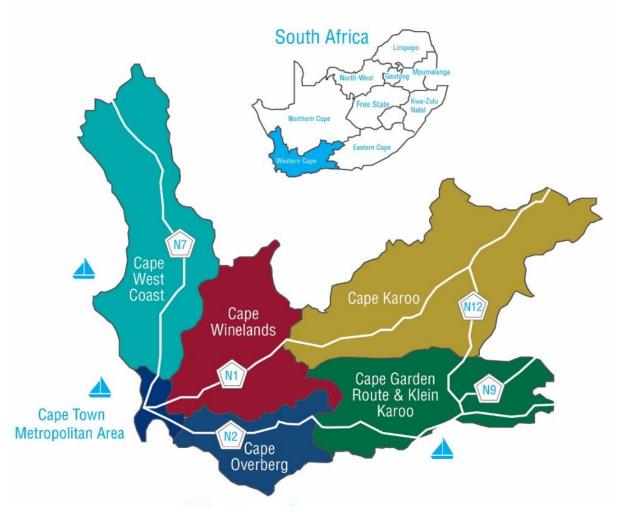




<sup>\*</sup>based on preliminary 2018 provincial data



#### The Western Cape: An attractive business destination



- Ranked 23<sup>rd</sup> in the 2020 World Airport Awards
- Best Airport in Africa 2016, 2017, 2018 & 2019
- Best Airport staff in Africa 2016, 2017, 2018 & 2019
- Home to top universities











#### **Leading sectors:**

RETAIL









**AGRIBUSINESS** 









ASSET MANAGEMENT









**SUSTAINABLE ENERGY** 













**AGRICULTURE** 







BPO









OIL & GAS



















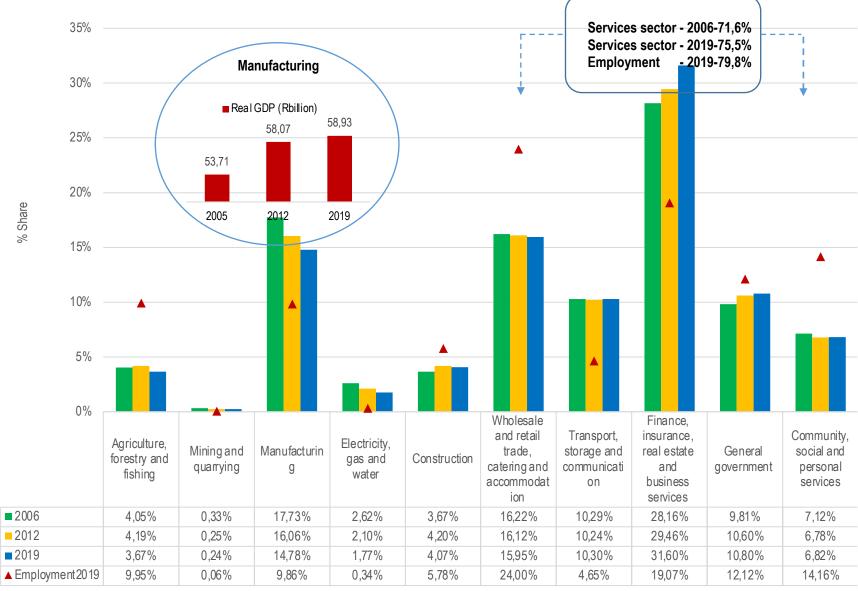








#### **Western Cape GDP by sector:**





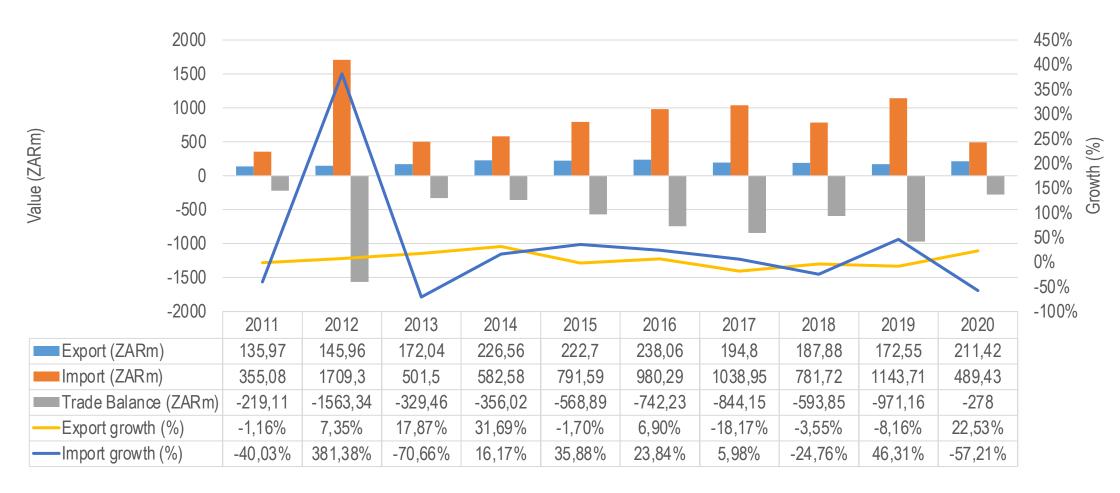
An Inspiring Place To Do Business
Source: Quantec, 2021

#### Top 10 export markets 2020:





#### **Trade between Finland and the Western Cape:**

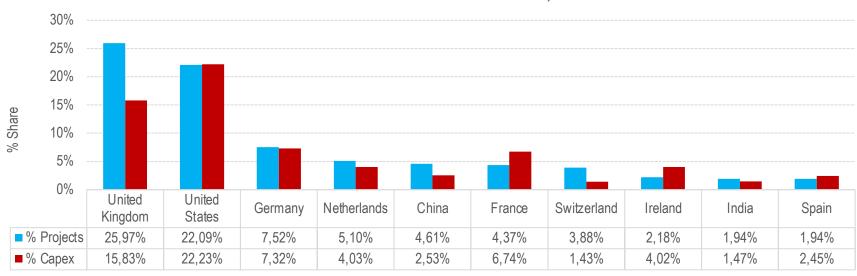


Source: Quantec, 2021

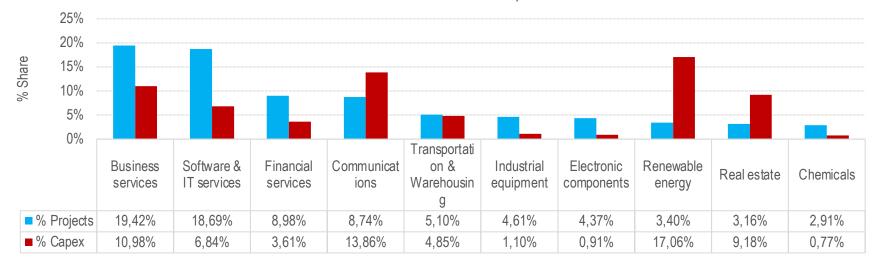


#### FDI breakdown:

#### **BREAKDOWN OF FDI BY SOURCE MARKETS, 2003-2020**

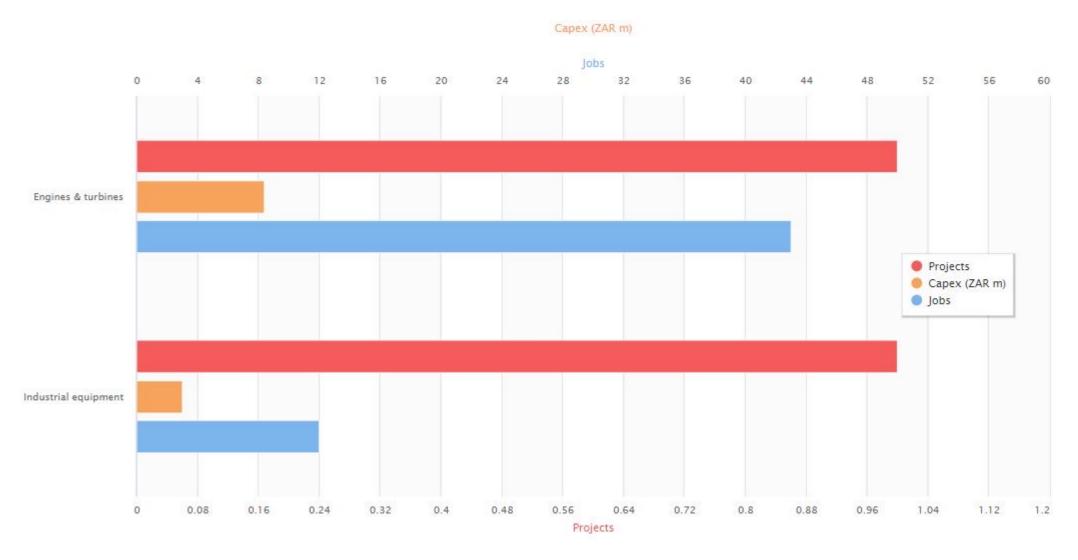


#### **BREAKDOWN OF FDI BY SECTORS, 2003-2020**



Source: FDI Markets, 2021

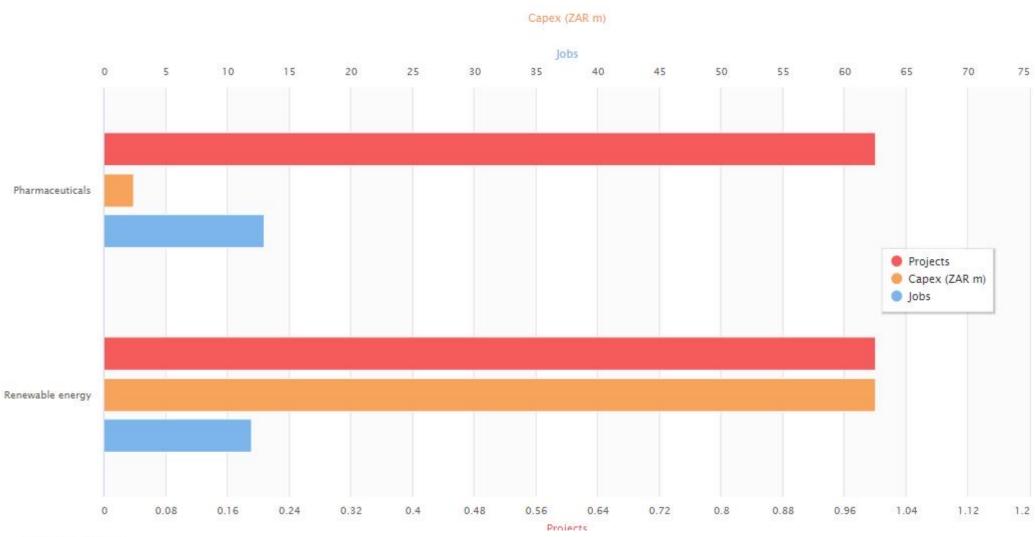
#### **Inward FDI: Finland into the Western Cape**





Source: FDI Markets, 2021

#### **Outward FDI: South Africa into Finland**





Source: FDI Markets, 2021

An Inspiring Place To Do Business

#### **Investment opportunities by sector:**



- Suppliers of parts and components for wind turbines and photo voltaics
- Service and maintain wind and solar farms



- Software and IT services sector
- Multiple ICT incubators & accelerators in operation
- Government core focus area



- Aquaculture: Development of open water aquaculture farms
- Essential Oils: Oil extraction and processing



- Metals conversion and steel fabrication
- Manufacture automotive components, Engineering services



- Construction of 3 to 5 star hotels- growing tourism
- Develop prime beachfront property



- Government & private sector outsourcing
- · Growth from new ventures

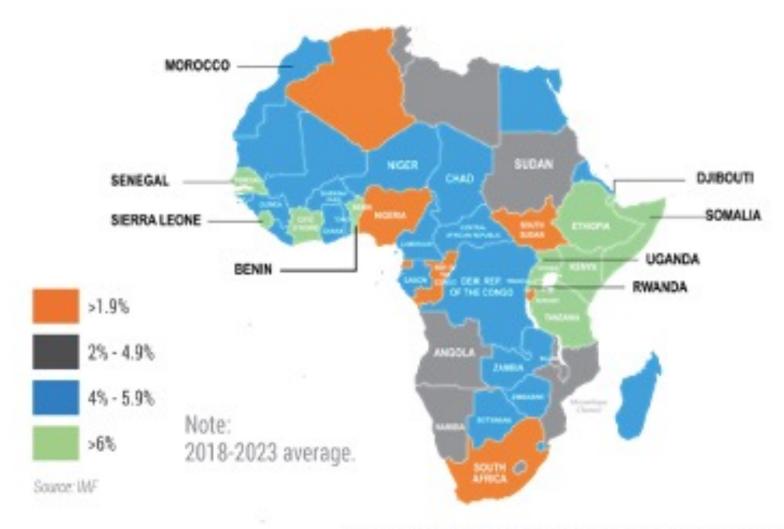


#### **Invest SA One Stop Shop:**





#### **Africa is the future:**





<sup>2</sup> Source: Foresight Africa. Top Priorities for the Continent in 2019. Africa Growth Initiative at BROOKINGS.

