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# **Geospatial Information & Statistics in Forward Planning & Risk Management**

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**Patrick Ooro**

**Director**

DaySeven Group (Pty) Ltd

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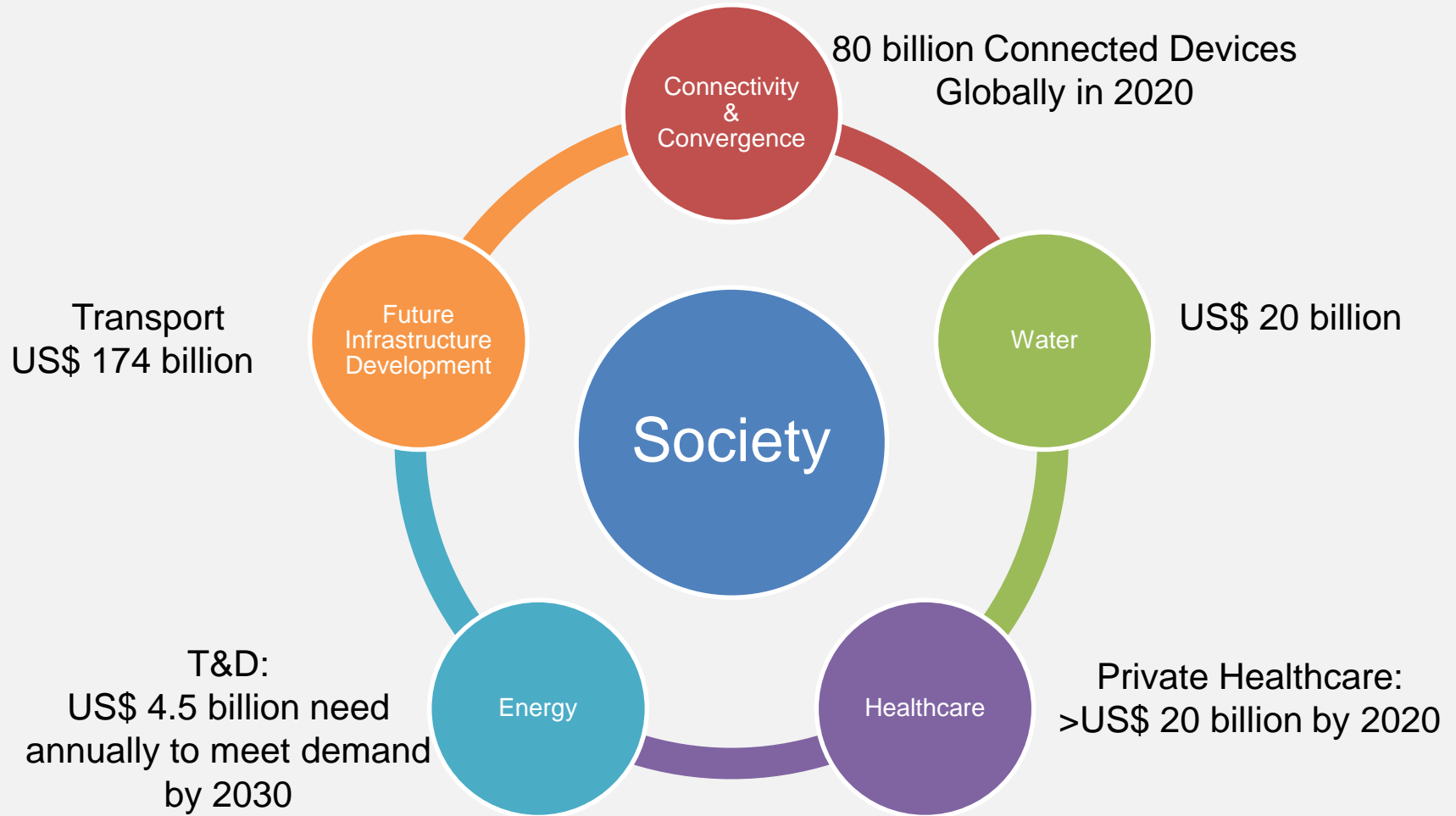
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# 1. Introduction

- Focus on the theme: Forward Planning and Risk Management
  - SDGs – GIS is an enabler to 12 of 17 SDGs
  - Agenda 2063 – The Africa We Want
    - Road map that requires enablers to achieve all 7 aspirations
- Need for Geospatial and Statistical Information and related data driven solutions
- There is a need for Public-Private Partnerships
  - Private sector can also provide Development Services
  - Need for a process to develop Political, Social and Economic compacts
- 4<sup>th</sup> Industrial Revolution
  - Revolves mainly around: Physical, Digital and Biological Megatrends
    - GIS can combine all the Megatrends
  - 90% of the global population will be using smartphones with Internet access

# 1.2 Megatrends in Sub-Saharan Africa

High Growth Opportunity Areas where GIS will have an impact



Total Investment in ongoing infrastructure projects in SSA (Excluding ICT & Telecoms) US\$ 378bn\*

\* Frost & Sullivan analysis 2012

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## 2. Current Situation

## 2.1 Overview of Current Situation

- Lack of Information sharing
  - Data exists in silos (In-Country and Intra-Country)
- Lack of Data Aggregation
  - Solutions for this already exist
- Some countries are better capacitated
  - Planning for Social Infrastructure
  - Management of Risk related to Social Infrastructure
  - Provision of appropriate solutions to meet dynamic needs
- Data is currently being generated on a continuous basis
  - Limited use of Big Data Analytics to inform decision making
  - Fairly new approach and requires a mind shift from traditional decision support tools

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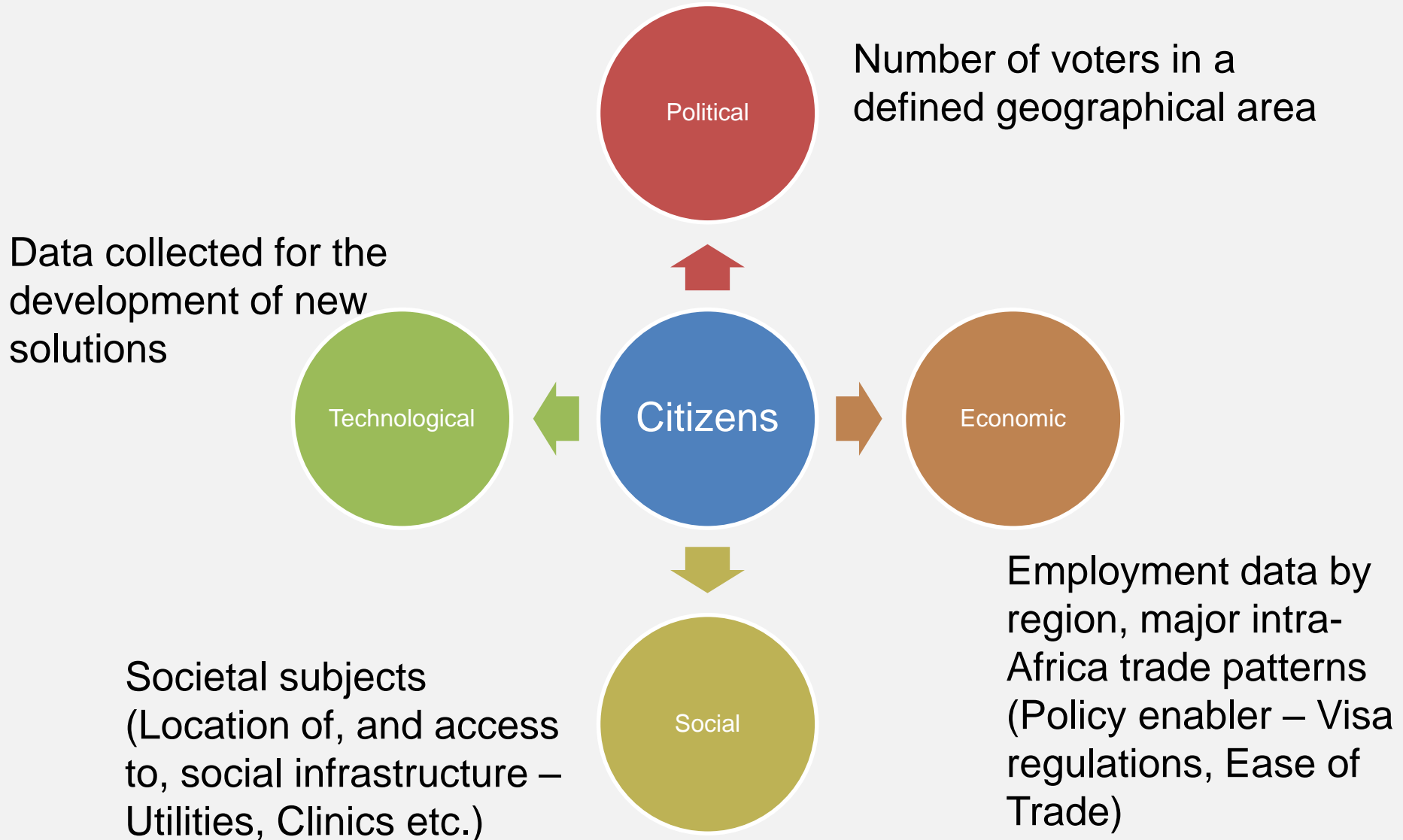
### **3. Does The Data Really Exist?**



## 3.1 What Data Exists?

- Data is generated through various activities on an on-going basis
  - Mobile devices – 80 Billion connected devices by 2020
- GIS data exists in various formats and for different purposes:
  - Planning, Project Implementation, Infrastructure maintenance
  - Some sector, and countries, have better data sets
    - Water, Healthcare, Education, Power, Transport etc
- Available data is currently **not aggregated** and **not effectively** used across the continent
- Data streams are inherently interconnected by their nature
  - Content of Data sets e.g. population data and locational data
- Citizens inherently have data that is generally not captured and/or recorded
  - This is generally locational in nature

# 3.1.1 Dimensions of Data



- Data is owned broadly by 2 sectors
  - Government (Public Sector):
    - Data for National Planning and service delivery
    - Not always readily available for common use (Some data may have political, economic, security implications etc.)
    - Government alone cannot collect all the necessary data, analyse and use it effectively
      - Despite the existence of GIS and other data Africa still lags behind
  - Private Sector:
    - Has access to capital and tools developed over years
    - Able to collect all forms of data from multiple streams e.g. Google Maps
    - Primarily collect data for strategic objectives
    - Can supply valuable data to government

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## 4. What Is The Future?

1. How can Africa use existing Data?
  - Use what is available to understand the power of GIS as an enabler for the Africa We Want – Data driven decision making tools
  - Digitization of existing data sets to allow for quicker access – Shift from paper based to multi-platform digital based data collection
2. Understand the gaps in Data
  - Use of new technology to rapidly collect and assess data gaps – Big Data Analytics (IoT and IIoT)
  - Pool data into common data pools for use across the continent – An African data pool
3. Define models for partnerships
  - Private sector expertise in GIS and Analytics
  - Tap into locational data generated by connected devices

### 4. How will this change the lives of Africans?

- Enhanced, and appropriately located, social infrastructures – Principle of a smart city
- Smart production and smart use principles – Resources and resource sharing

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Contact Us:

T: +27 81 247 5246

E: [info@dayseven.co.za](mailto:info@dayseven.co.za)

[www.dayseven.co.za](http://www.dayseven.co.za)

