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South African National Energy
Development Institute

A State Owned Entity established under Section 7
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Building Smart Capacity: Training and Development



65th AMEU Convention 2016

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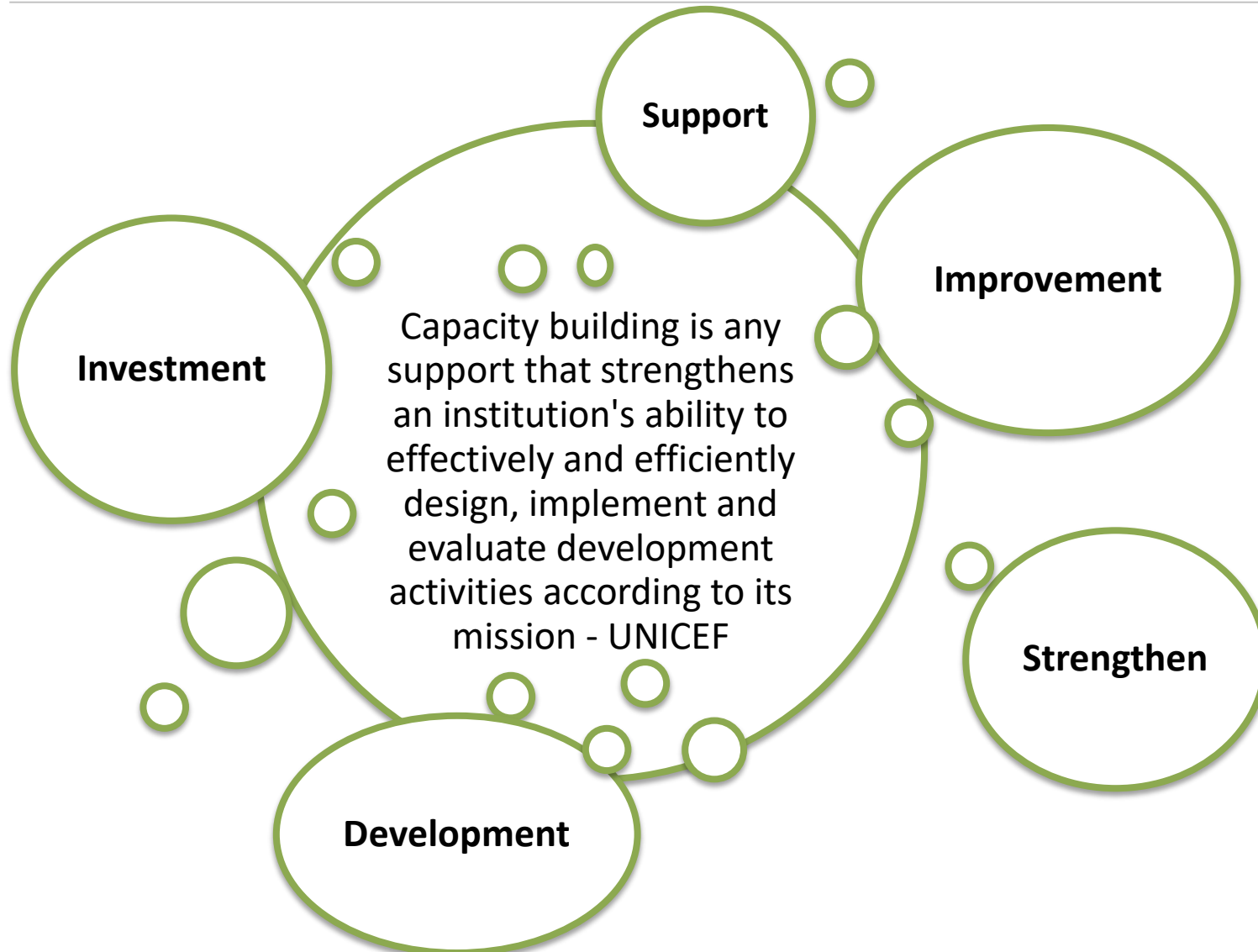
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Is Capacity Building a means or an end???




Conceptualising Capacity Building



Aims of Building Smart Capacity



 The purpose of Building Smart Capacity is intended to help and support a utility in the following respect:

- ❖ To enable a utility to achieve its objectives and to execute its mandate
- ❖ To promote the effective utilisation of resources
- ❖ To keep a utility in sync with its environment and changes

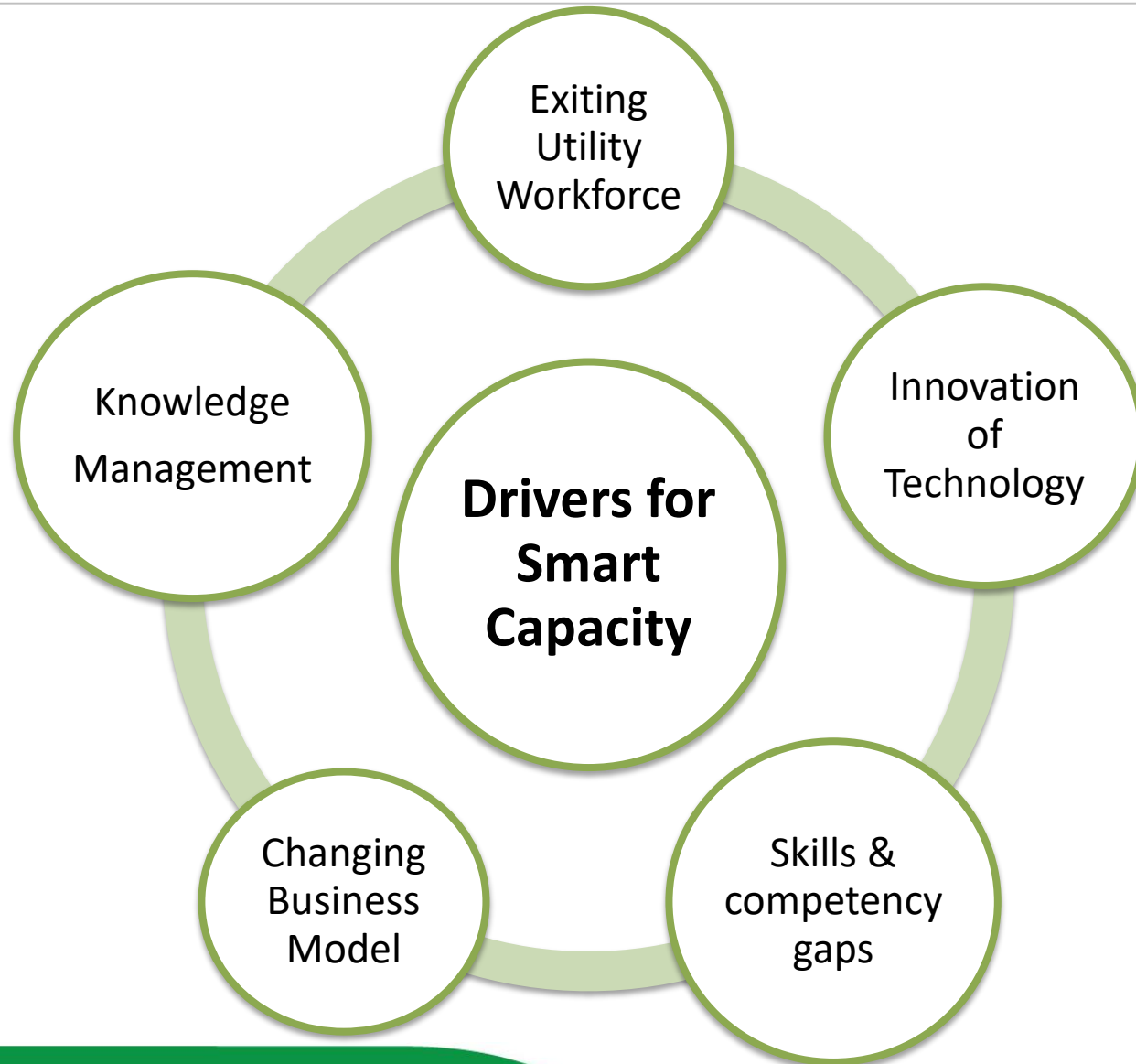
Legislation and Regulation



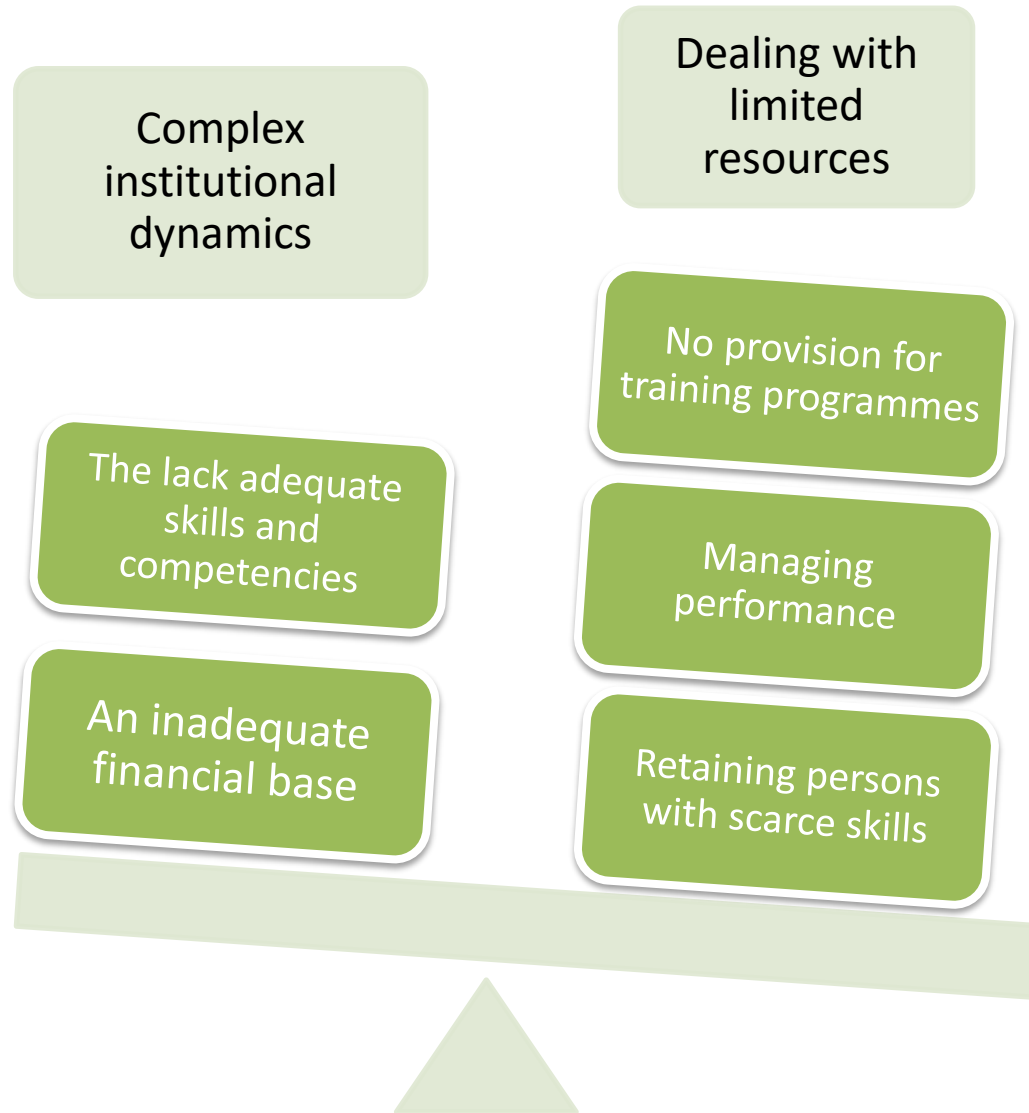
- 🇿🇦 In the democratic dispensation, South Africa has been epitomized by legislature reform and policy formulation intended to meet the constitutional provisions. Amongst many other central programs of reconstruction, is the development of human resources especially in local government.

- 🇿🇦 The following provisions are articulated within the South African legislations, that outline the statutory requirements that need to be institutionalised in effort to promote training and development towards the enhancement of skills in municipalities:
 - ❖ Skills Development Act 97 of 1998
 - ❖ Municipal Structures Act
 - ❖ Municipal Systems Act
 - ❖ Municipal Financial Management Act
 - ❖ Skills Development Levies Act
 - ❖ NQF Act 2008

Drivers for Smart Capacity




Capacity Challenges in Municipalities



Smart Grid Skills Area



 In a study by West Monroe Partners & Illinois Institute of Technology, the following skills quadrant were outlined as areas where future smart grid skills would be required:

Technology

- Advanced Components
- Advanced Control Technologies
- Sensing & Measuring Elements

Systems integration & Communication

- IT System, Networks and Architecture
- Integrated Communications Protocols and Technologies
- Cyber Security & Interoperability Standards

Organisational Management

- Business Transformation Challenges
- Legal & Regulatory Issues
- Utility Decision Support Application

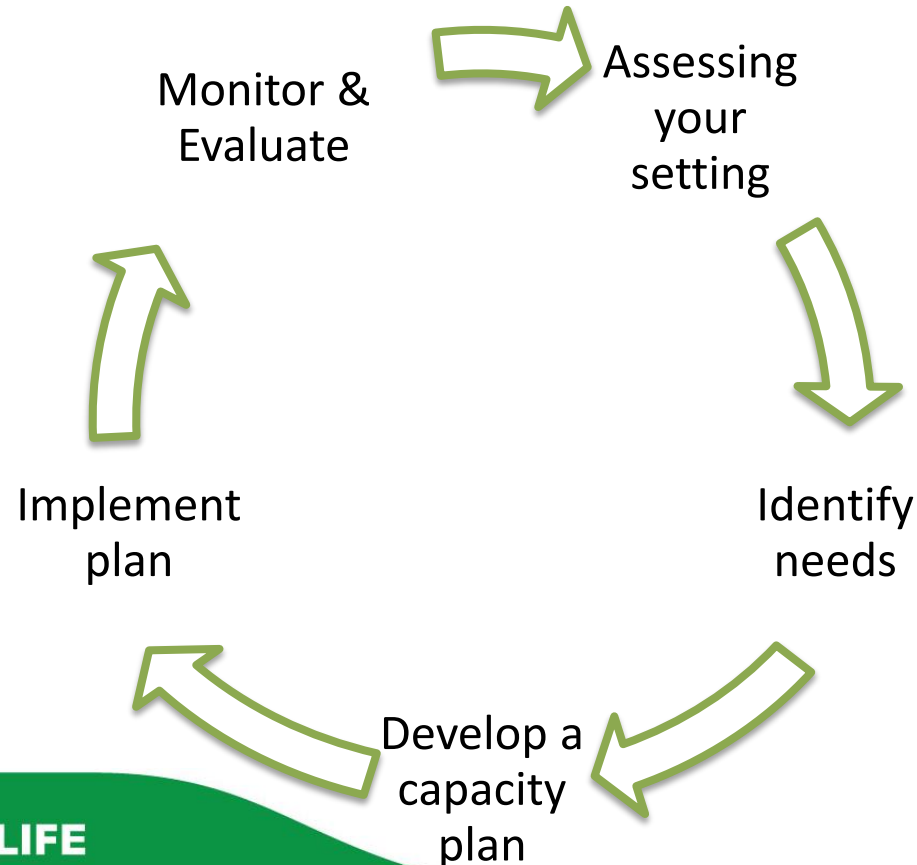
Customer Management

- Customer Communication & Relationships
- Energy Supply Side Management
- Customer Energy Management Systems

Initiating smart utility capacity



🌱 In establishing adequate human capacity, it must be accepted that it is a **process** and not a haphazard event. The following cycle can be undertaken by a utility in making the process worthwhile and of much value:



SANEDI Initiatives



- 🌱 Through the strategic initiative of the EU Donor Funded Smart Grid Programme, a collaboration agreement was established between the DoE, SANEDI, and the University of Pretoria, wherein a grant fund was allocated to the University for research and development.
- 🌱 There are 3 programme related activities, namely:
 - a smart grid lab,
 - curriculum development and
 - student development bursaries



In Conclusion



- 🌱 Much emphasis should be placed on achieving the seamless integration between internal systems and processes, resources and competencies towards a common goal and business sustainability.
- 🌱 Utilities needs to establish a clear understanding of what training and development is needed in order to identify the specific interventions of capacity building.
- 🌱 In relation to dealing with change, institutional participation and collective consensus is key with regards to the purpose and objective of building capacity.
- 🌱 There is a strong need of investment and collaboration between relevant bodies such as Universities, SETAs'



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**THANK
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