Comments will focus on Principles covering effectiveness

- From a Research Perspective view is bottom up: National Agenda, AU, SDG
- Key is to ensure as government (top down), SDG, AU are incorporated into National plans
  - Kenya Vision 2030 is now in Medium term plan III – is aligned
  - If researchers (universities and research institutes) focus on national dev agenda, by default will cover SDGs
- Effective research requires **competent** researchers, **collaboration** across disciplines and with key stakeholders and beneficiaries, whose results can be used for **sound policy making**
- Research HOWEVER, requires **funding**
  - Agenda 2063 targets 1% of GDP towards research? Are we there yet?
  - Kenya is at 0.79%
    - To ensure alignment, National Research Fund’s calls require at least three institutions (Collaboration), must directly address objectives from Vision 2030 (SDG, AU) (outputs provide **sound policy making**)
    - However represents only about **10-15% of total research funding in the country**?
    - **So who’s research agenda are we carrying out?**

- In BROAD terms a rise in GDP will result directly an indirectly in improvement on SDG indicators, either on the side of enabler of that rise or a result of that rise
- **Does research and research output contribute to GDP?**
1. Although significant contribution to GDP from government infrastructure projects low research output and therefore reflective of technological capability is why nearly ALL major projects, even those fully funded by government are awarded to foreign firms.

2. Two key development priority areas. Minimal research, minimal Contribution. Affordable housing, minimal research on how to make that a reality. Not really the keen interest of private sector firms with Current business models. What are new model, new materials, etc.

3. 95-96% of ALL research funding is external to the country. So whose Research agenda will be followed?

Health and Education with the top two in publication outputs excluded in Kenya context as are enablers not direct contributors to GDP through commercial activities.
Networking among African Universities and Research Institutes

There are various strong research and capacity building networks across the continent of which universities in Kenya participate. For example RUFORUM (Agriculture), CARTA (social Sciences) and the Newly formed African Research Universities Alliances (ARUA)

The primary funding for these and most networks are funded from outside the continent, and therefore to a large extent determine the research agenda

Exception (positive) ARUA and UKRI 16 Research Intensive Universities, 13 Centres of Excellence on themes decided upon by the Universities themselves. UKRI funding GBP 120,000 per Centre of Excellence over 3 years with Each Centre matching with US$ 15,000
Truly looking at SDG-centric research focus areas.

Finally and back to the notion of raising GDP will directly and indirectly address all SDGs

Area of research outputs to intellectual property to commercialisation, business development, EMPLOYMENT

Africa is very weak in this path to business development and employment thereby raising the Standards of living, and (through taxation) providing government with more resources to Provide better public services and address Principle 7 No One left behind.
Kenya ~50million 60 resident patents (2010-18), Malaysia – 31 million, 3042 same period

Kenya has just completed development of 10 year Masterplan to develop STPs attached to Universities (3-5 in next 10 years). Talk about STPs. First one under construction
Must be local agenda as developing competing products – Appropriate technologies