

SARChI
SOUTH AFRICAN
RESEARCH CHAIR IN
TRANSFORMATIVE
INNOVATION, 4 IR
AND SUSTAINABLE
DEVELOPMENT



“Cross-sectoral convergence as a
driver for diversification”

7th April 2025

Prof. Erika Kraemer-Mbula

CSTD
28th Annual
Session

Myths about economic diversification and structural change

1) **Economic diversification is only about expanding to new sectors**

Economic diversification is a Systemic Transformation, Not Sectoral Expansion.

2) **Diversification is a linear process of moving from low to high-value sectors.** Rather creating a dynamic, interconnected system where sectors co-evolve and interact.

3) **Structural change is only about changing the economic structure, not the social fabric**

4) **Structural change can be driven by government alone**

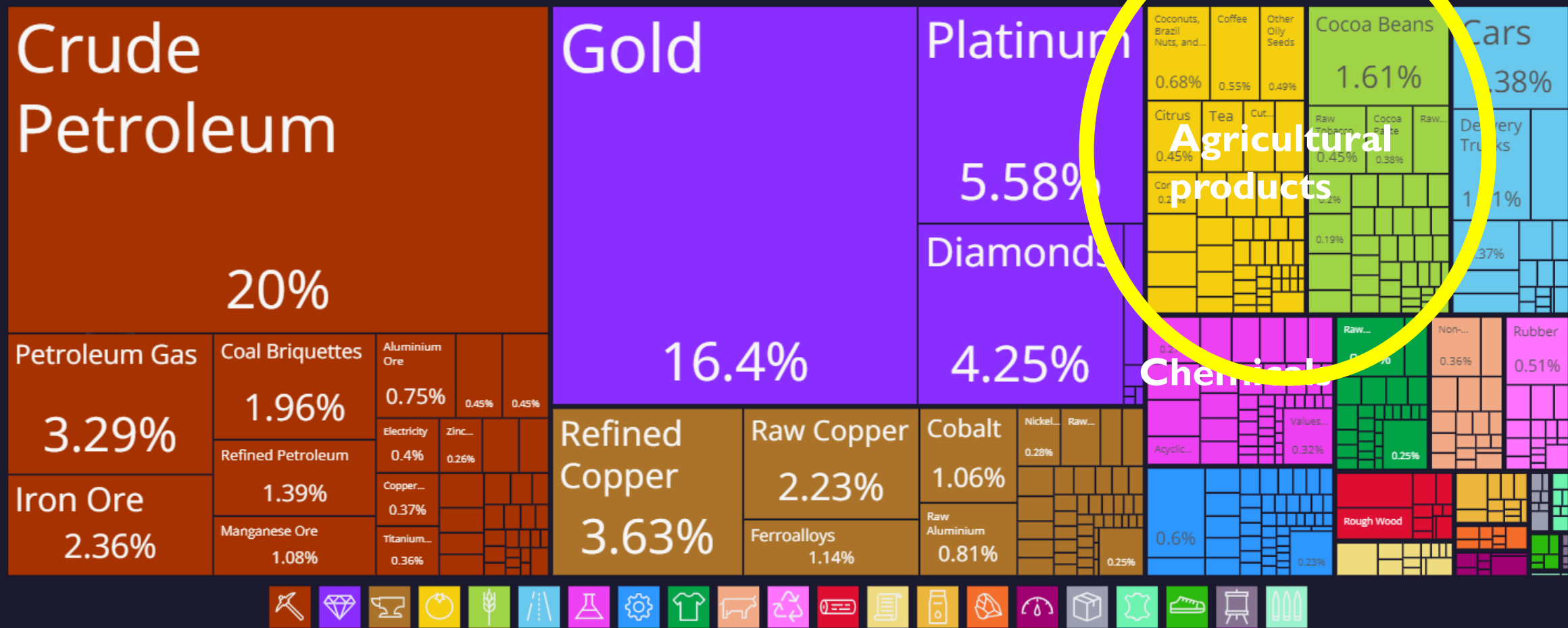
Limitations of a sectoral focus

Sectoral focus alone does not guarantee that basic provisions for society, such as food security, healthcare, education, mobility and energy, are adequately addressed.



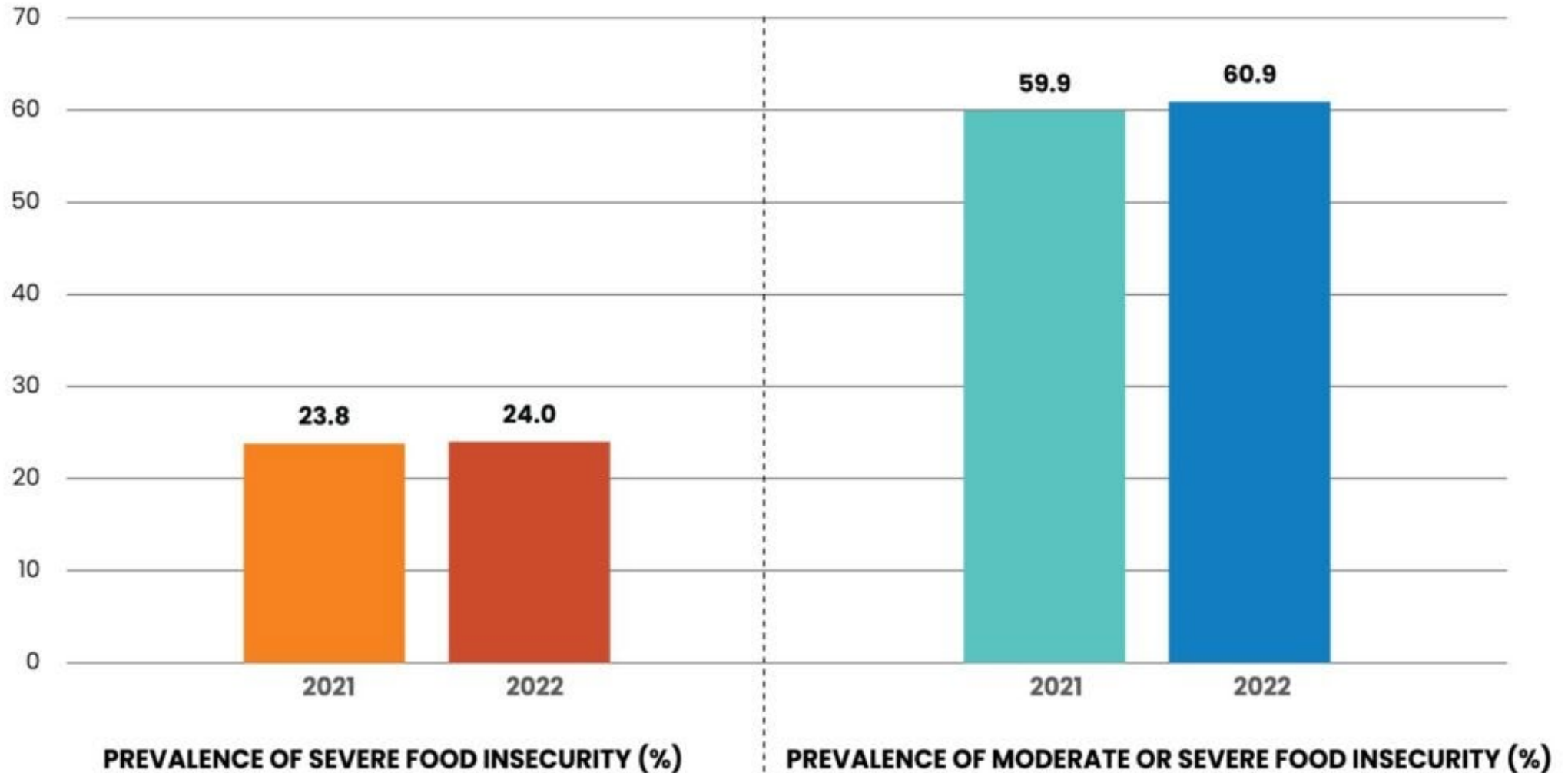
Africa Productive structure (exports)

Total: \$440B

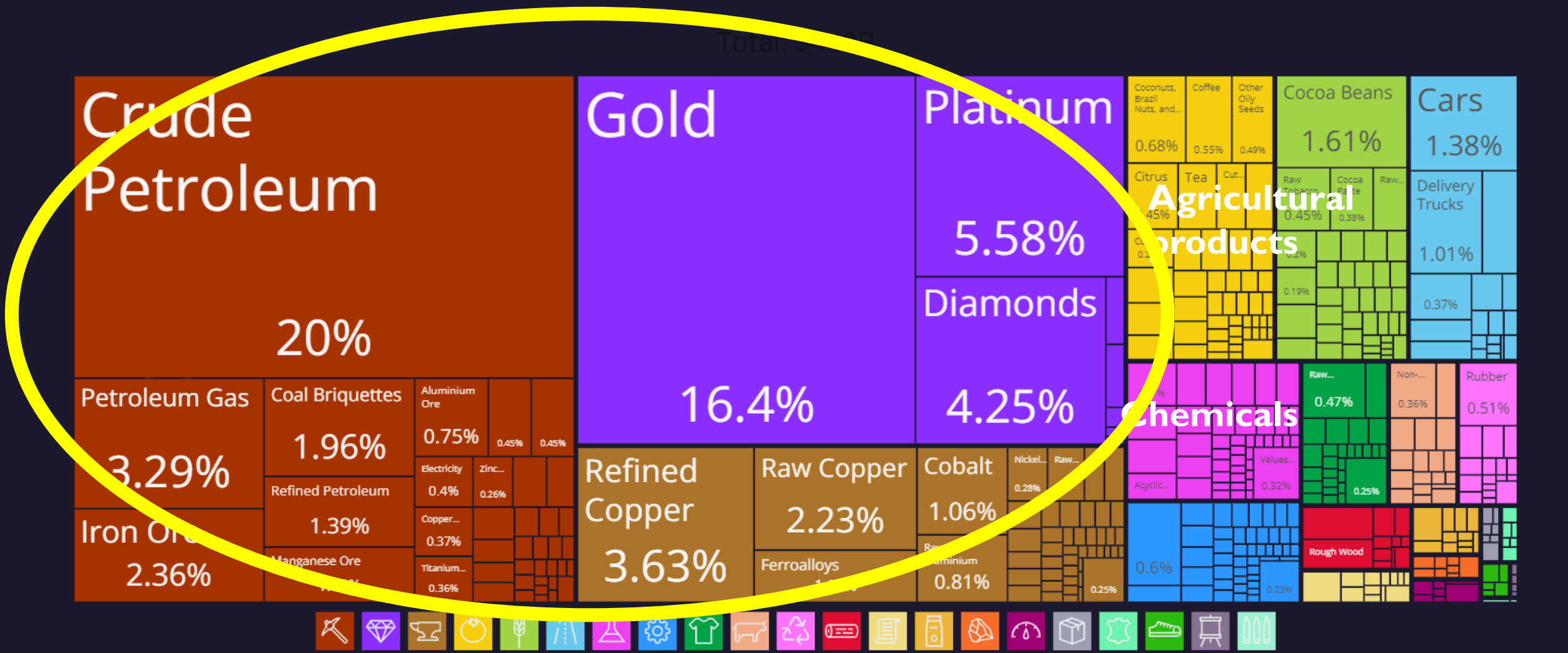


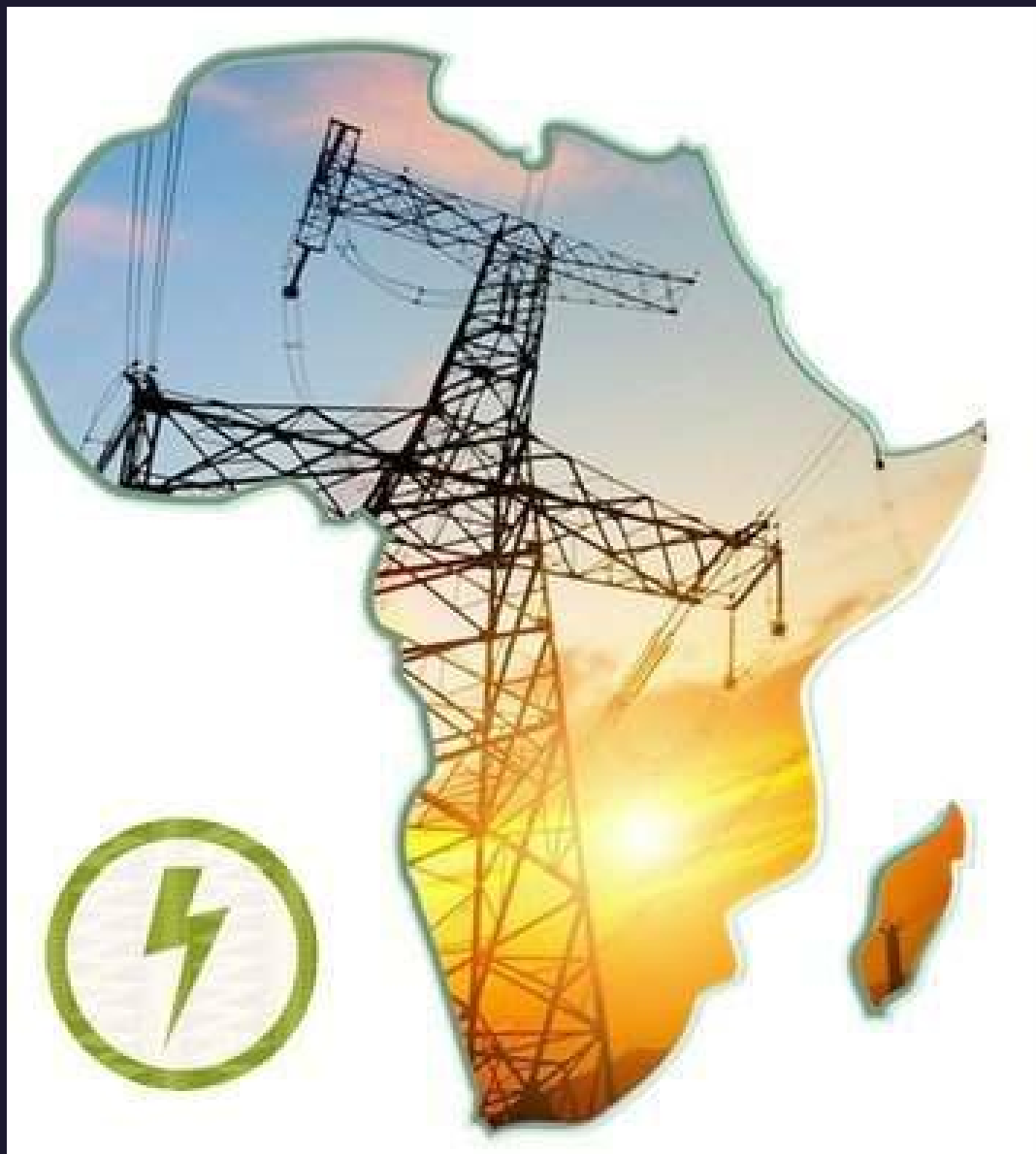
Prevalence of Food Insecurity in Africa

Prevalence of food insecurity at severe level only and at moderate or severe level, 2021–2022.



Africa Productive structure (exports)





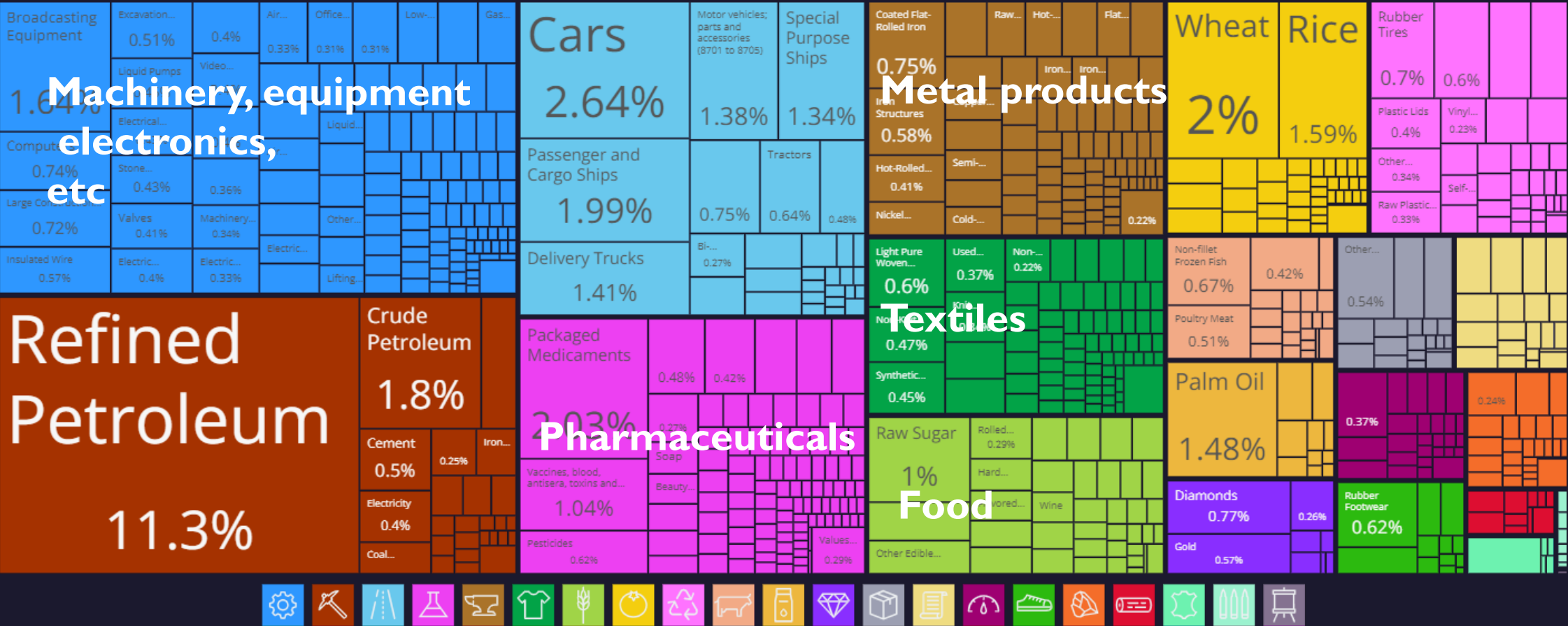
Just over half (54.7%) of the 1.3 billion people living in Africa, have access to electricity (2023)

600 MILLION
Africans remain off-grid

Source: International Energy Agency

Africa Productive structure (imports)

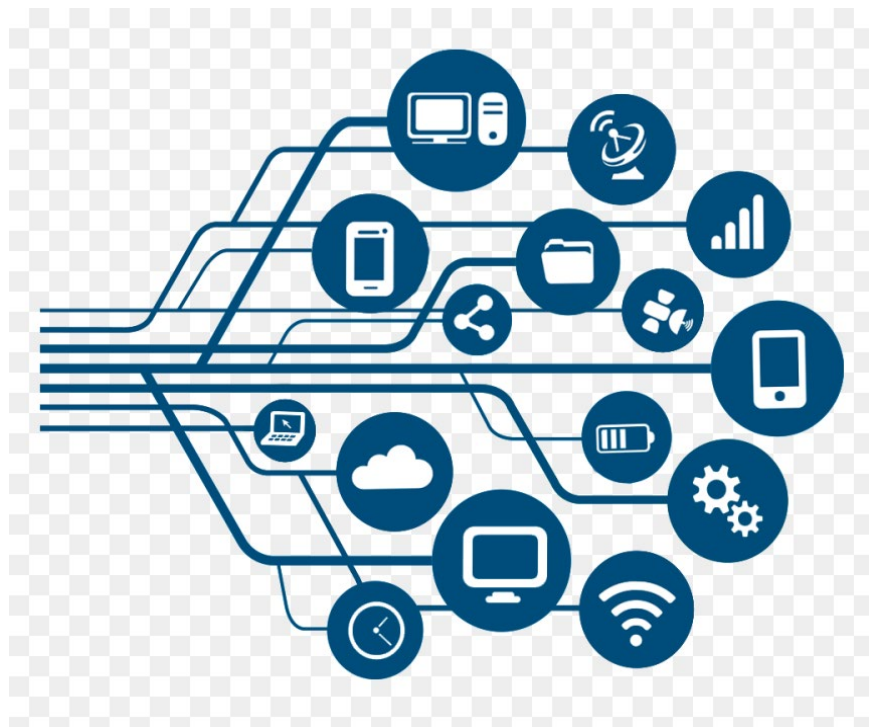
Total: \$438B



Strategic focus on strengthening interactions across sectors

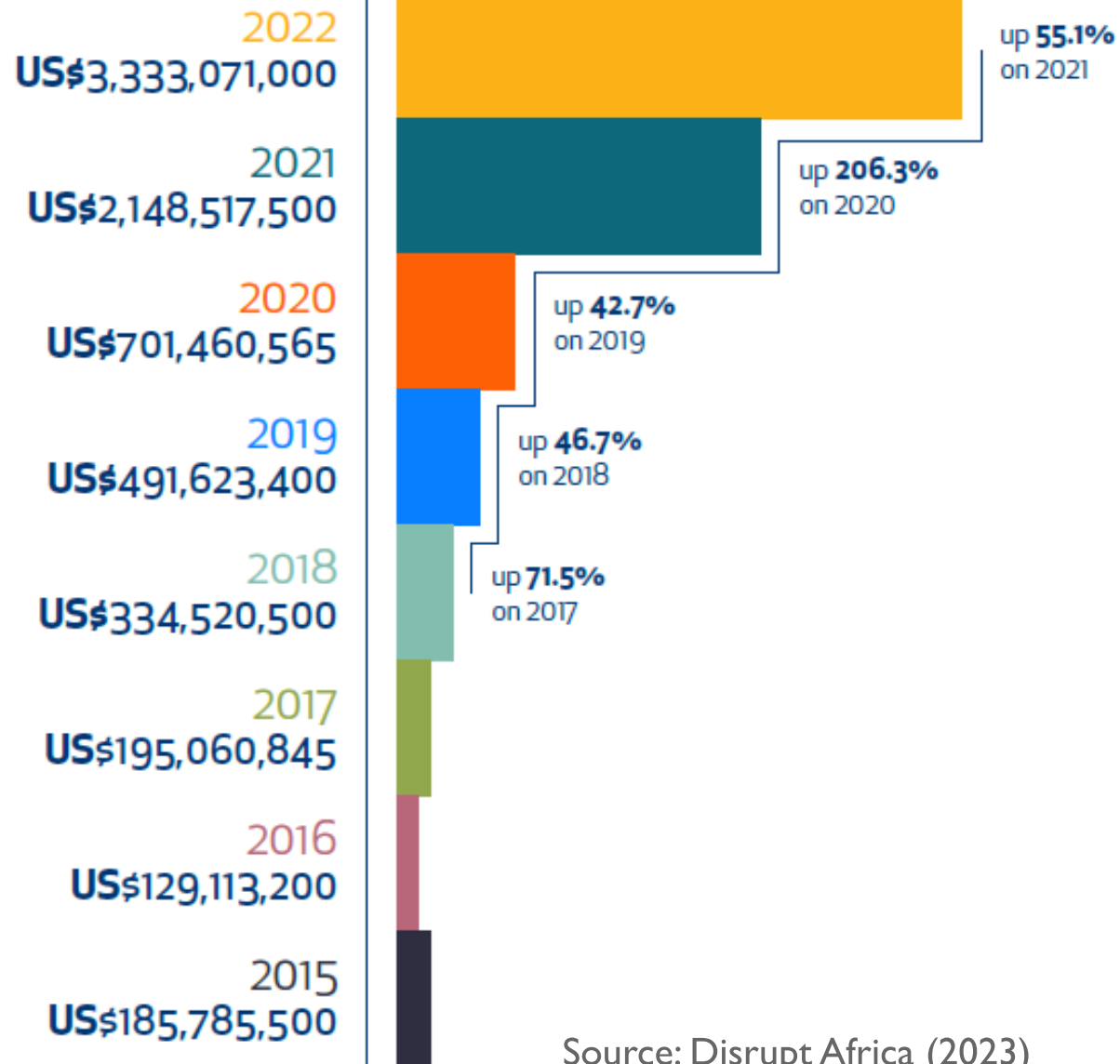
- **Infusing advanced digital technologies in traditional sectors while building a domestic digital economy**
- **Building bridges:** What are those bridges? **infrastructure, communications, education and financial systems** are connectors that can be transformed through innovation and advanced digital technologies (AI, blockchain, IoT, etc).
- **Cross-sectoral convergence:** *Intersection or blending of technologies and practices from different industries to create hybrid solutions that address multifaceted challenges.*

Leapfrogging opportunities by technological developments to address pressing social and environmental issues



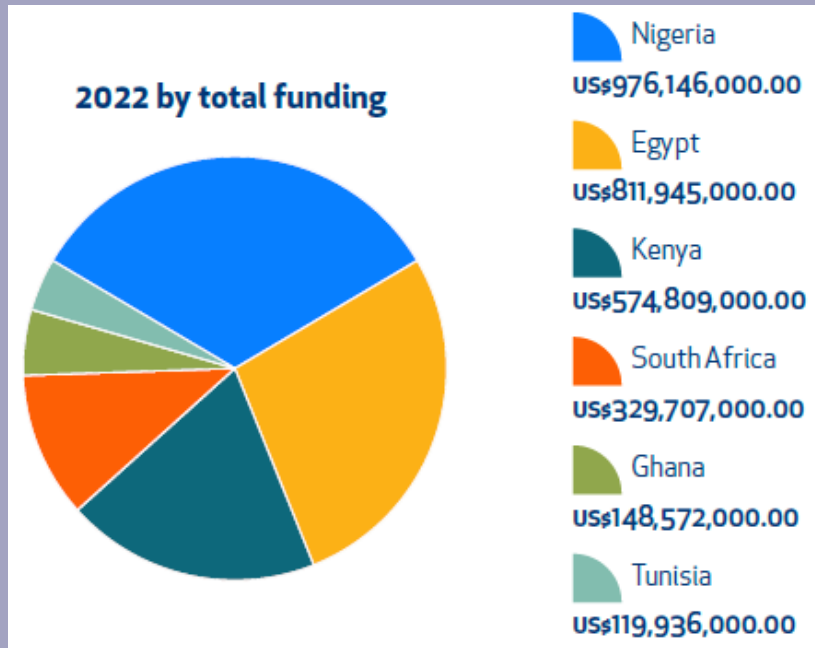
**Requires
deliberate
direction**

Total funding secured by African tech startups by year 2015-2022

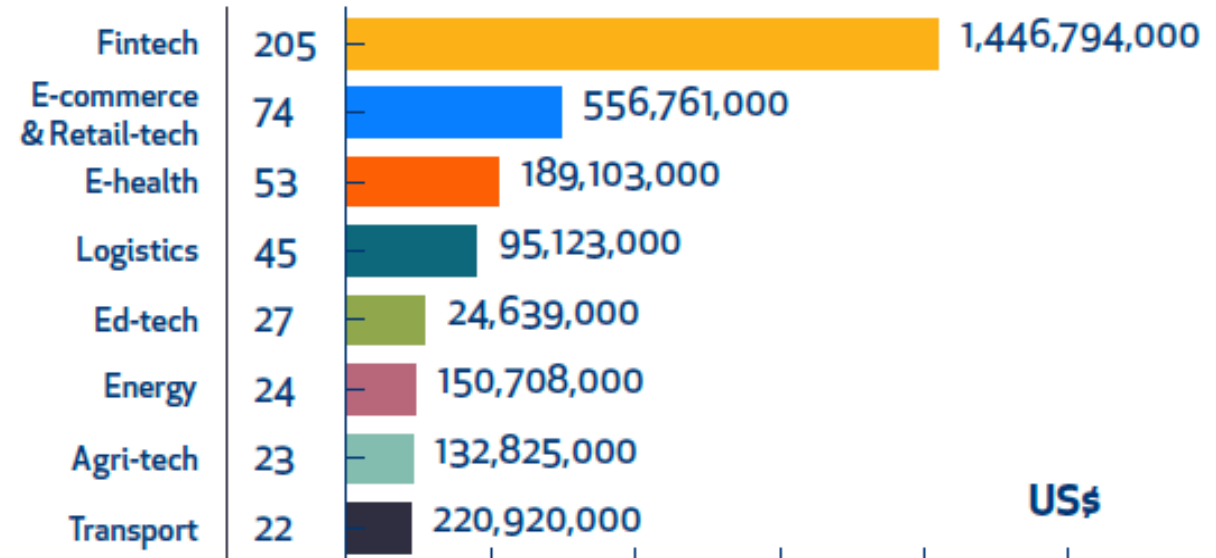


Source: Disrupt Africa (2023)

2022 by total funding



African startup funding by sector, 2022



US\$

Examples of intersections

- **Agriculture and Fintech**

- Mobile money enabled farmers (including informal) in rural Kenya and across East Africa to access digital payments, microloans, and mobile-based insurance products previously unavailable to them
- Effects on economic diversification: engage in new value-added agricultural activities, and link farmers to agriculture suppliers (new crops or innovative farming practices)

- **Agriculture and AI**

- AI-powered platforms that collect data on farming practices and outcomes can create new business models around agricultural data – **opportunities for the data economy**

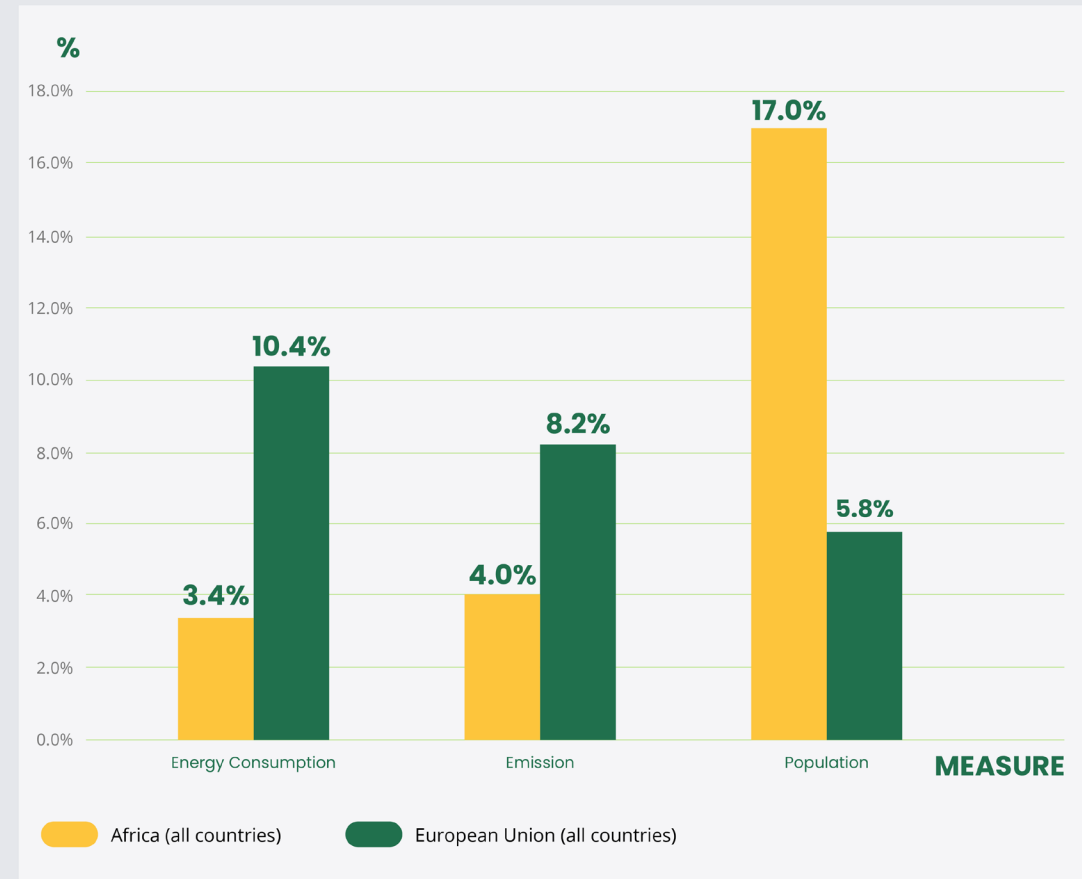
Examples of intersections [2]

- **Healthcare and AI**

- Integration of AI and big data to offer advanced diagnostics and personalised healthcare services. **Expansion of Health-Tech Startups**, including companies focused on AI-driven diagnostics, telemedicine, personalised health solutions, and mobile health apps
- AI-based models used to create more affordable health financing options for low-income communities. These models can identify healthcare risks and tailor health insurance products – **expansion of the microinsurance sector encourages the growth of the financial services and insurance industries**
- Data for nutritional health helps identify nutritional gaps and create targeted products. **Emerging supplement industry**: with growing health awareness, nutritional supplements (such as vitamins, minerals, and herbal supplements)

"No other continent in history has been tasked with the challenge of developing without polluting, whilst being simultaneously the major victim and lowest contributor to emissions" - Olusegun Obasanjo, former President of Nigeria.

AFRICA & EU: SHARE OF GLOBAL ENERGY CONSUMPTION, CARBON EMISSIONS & POPULATION (2019)



Examples of intersections [3]

- **Green economy and frontier techs**

- Green transportation and E-mobility. **smart transportation systems across various African countries**, integrate AI, IoT, and electric mobility. Promote the development of new manufacturing and service industries, including electric vehicle production, battery storage, and smart transportation services.
- **Smart City solutions and Green urban development**: Example: Kigali Smart City, Johannesburg Smart Grid., integrate green infrastructure with IoT, data analytics, and AI
Impact on diversification: the growth of smart cities creates a whole new market for urban tech.



How do we identify and scale up opportunities? Methods


- Systematic **system mapping** exercises to identify key sectors, stakeholders, and technological drivers in strategic socio-technical systems
- **Cluster development** - catalyse innovation not just within one sector but through **cross-sectoral interactions**
- **Collaborative and participatory** policy design & implementation
- **Policy experimentation** – policy living labs, sandboxes, etc
- **Strategic foresight and scenario planning**

Recommendations

Aligning economic diversification objectives with the provision of basic societal needs

Locally-driven/ bottom-up diversification – methods and tools to identify and promote grassroots/informal solutions developed by communities to address their unique challenges.

Infusing “bridge” sectors/ activities with digital technologies – transformation of transport, comms, education, finance through digital technologies. Inclusive access.



Strategic governance, which facilitates sectoral multistakeholder collaboration, provides regulatory clarity, and future outlook.

Thank You

X: @UJ_TRCTI

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Email: erikakm@uj.ac.za

