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# LEVERAGING ON RESEARCH EVIDENCE FOR BETTER ACCESS TO ASSISTIVE TECHNOLOGY

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# PRESENTATION FORMAT

- Introduction
- Reality facing regional research evidence on AT
- The use of systems thinking in AT provision
- Research creating binaries of either push or pull effect
- Leveraging on partnerships: Presenting AfriNEAD as a case study.
- Disability Research Country Working Groups
- Presenting Disability Research Country Working Groups as an in-Country strategy for AT.
- Basic research questions to use as a start
- Harness & coordinate existing assets to strengthen platform
- Research on access and creation of data base
- Conclusion



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# INTRODUCTION

- Assistive technology (AT) is crucial for inclusive achievement of each of the Sustainable Development Goals.
- There is a need to map already available research evidence at ground level where people live including leveraging on existing partnership to expedite access.
- Within resource-poor areas across Africa, it is important that AT research projects are **harmonious, complementing** each other and **contributing to a collective effort** to strengthen AT systems.
- WHO GATE project (2014) already has AT Tools to support countries to collect data on AT.
- In Africa external production of AT should be seen as an interim in addressing AT problems.
- **A Vuka Uzenzele research approach** (wake up and do it for yourself) approach should be one of the focus to appropriate response to ensure sustainability in AT production in Africa.



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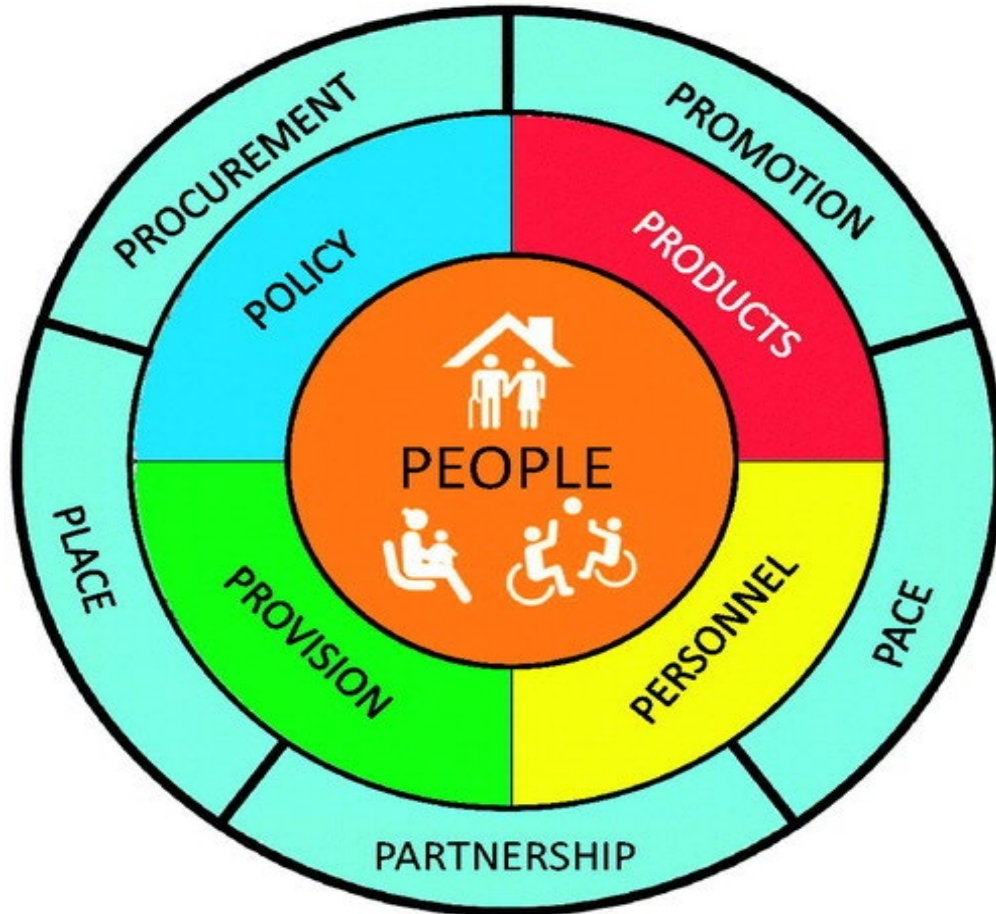
# REALITY OF STATUS OF REGIONAL AT RESEARCH

- Minimal available research evidence.
- Majority of undergraduate and postgraduate programs have minimal inclusion of AT in curriculum.
- Majority of the evidence is driven by external agents – competitive, uncoordinated, fractured and wasteful.
- Lack of harmonization of research tools by Government departments and research projects conducted in silos.
- Reluctance to invest time, money and research on home grown products.
- Need to re-imagine a Vuka -uzenzele integrative approach to regional AT research evidence that is systems driven.
- Use a critical backward and forward approach to ensure systems fits local context and knowledge systems.



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# THE USE OF SYSTEMS THINKING IN AT PROVISION



MacLachlan & Scherer (2018)



# USE OF SYSTEMS THINKING FOR AT

- **People centred and user driven:** Old adjunct of “nothing about us without us”.
- **Policies:** Focusing mainly on improving health – hence focus on functioning and participation.
- **Products:** Accessible, affordable, cost effective and culture sensitive.
- **Service providers:** Broader than just professionals – mid and grass roots workers – task shifting.
- **Provision:** Central versus local services.
- **Procurement:** Needs and population driven.
- **Place:** Environments.
- **Pace:** Proactive and change driven (theory of change)
- **Promotion:** Intersectoral.
- **Partnerships:** Collaborative, strategic and proactive.



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# RESEARCH CREATING BINARIES OF EITHER PUSH OR PULL EFFECT



- Careful on technological innovations that create binaries.
- The product development process must be “pulled” by the consumer community – grass-root approaches.
- Focus on research on needs assessment client-oriented practice and participatory emancipatory research approaches.
- The best product is one which the consumer understands the need for full adoption of the product.
- Approaches that adopt the “look like”, “feel like” and act like,” prototypes.
- Integrated research approach to product design.
- Hence Vuka Uzenzele and incubator approaches – attractive options.



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## THE NEED FOR THE DEVELOPMENT OF AN AT HUB IN AFRICA

*Drawing from UN Convention of the Rights of Persons with Disability (CRPD): need for access to rehabilitation services (Article 26) and mobility devices (Article 20) and enjoyment of full inclusion and participation in the community (Articles 19 and 26):*

- There is a need for a **coordinating body** for AT in Africa that will combine both **practical** support on how to gain access to affordable and quality AT and **research** generation on this area.
- Such a body will assist in generating information on aspects such as user satisfaction, cost, impact, and effectiveness of assistive devices at national, regional and local levels.
- It will also generate research evidence that is geared towards **removal of environmental** barriers which will result in improvement of functionality and participation of AT users.
- Need for fact finding on factors related to available resources, the economic situation, natural environment, and the different composition of the population within differing contexts.



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## LEVERAGING ON PARTNERSHIP - PRESENTING AFRINEAD AS A CASE STUDY

- Introducing the African Network for Evidence - to - Action in disability (AfriNEAD) - a regional disability research network.
- Coordinated through a structure that includes disability **researchers, disabled people organizations, government, business and civil society.**
- Main goal is to use research evidence to impact on policy and practice to effect change on the lives of persons with disability.
- More than 20 African countries are affiliated to the network. Network has hosted 6 tri-annual conferences.
- AfriNEAD is developing **Disability Research Country working groups (DRCWGs)** as in country structure that will coordinate disability research.
- Could DRCWGs be used as an in-country coordinating body for AT.



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# Disability Research Country Working Groups

- An in- country strategy to coordinate disability research.
- Constitutes of disability researchers, Disabled people organizations, Government, Business and Civil society.
- The complexity of disability research pose a challenge on DRCWGs – unsure where to start.
- The area of AT including manner how WHO had structured it affords a possibility for a structured approach to disability research.
- Doing disability research on AT opens doors for other areas that also require further enquiry and research for equalization of opportunities for persons with disability.
- This approach would assist the DRCWGs to be structured in working within the area of disability research.



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# PRESENTING DRCWGs AS AN IN-COUNTRY STRATEGY FOR AT

Part of this platform could perform following roles:

**Users/people level:** Creation of a platform where voices of the user are heard.

**Policy level:** Development of country level and regional policy. Put in place enforcement strategies ensuring implementation of these policies.

**Research level:** Use WHO tools e.g., **rapid assistive technology assessment (rATA)** to measure the need, demand and barriers to accessing assistive technology.

**Advocacy level:** Use data collected to raise awareness and inform decision for policy and programme design.

**Coordination and building on available Evidence:** Build on existing research e.g., the google research project mapping AT providers in Southern Africa.

**Monitoring and evaluation level:** identify best practice and inefficient practice with scaling one up and stopping the other.



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## BASIC RESEARCH QUESTIONS TO USE AS A START

- What difficulties/problems do people have?
- What products/technologies can appropriately address these problems?
- What measures should be taken to address sustainably issues?
- What skills are needed to provide these?
- What training do you need to acquire and apply these skills?
- In what format do we provide services?



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# DEVELOPMENT OF REGIONAL DATABASES TO IMPROVE ACCESS

- Development of centrally funded information databases
- available to countries in the region and to the public to improve product awareness. access, affordability
- Products may not be available in some lower and middle-income countries (LMIC) today.
- But when products become available, the equal distribution will require awareness of product availability.
- Research to assist in examining past/current successful practices
- Leverage knowledge of international partners



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## HARNESS & COORDINATE EXISTING ASSETS TO STRENGTHEN PLATFORM

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1. AfriNEAD together with partners identify AT experts and assist in turning evidence to action by using AJOD and tri-annual conferences.
2. Use ACAT as a communication vehicle while at another level support its work for better coherence and collaboration in its activities.
3. Centre for Disability and Rehabilitation Studies, Disability Unit at University of Cape Town & ADIRA assists with research and research Capacity building.
4. Leverage funding for organizations such as USAID, UNICEF, DFID and other related funding agents.
5. Pilot with partners an AT incubator system at SU for a Vuka Uzenzele Concept.



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## CONCLUSION

Many African countries have rectified the CRPD. The convention puts emphasis on:

*“Countries to provide development assistance in efforts by developing countries to put into practice the Convention”. States Parties recognize the importance of international cooperation and its promotion, in support of national efforts for the realization of the purpose and objectives of the present Convention and will undertake appropriate and effective measures in this regard, between and among States and, as appropriate, in partnership with relevant international and regional organizations and civil society, in particular organizations of persons with disabilities.”*

Ensuring full participation of persons with disability is part of the obligations of countries that have signed this convention.

# References

- MacLachlan M, Scherer M. Systems thinking for assistive technology: a commentary on the GREAT summit. Disability Rehabilitation Assistive Technol. 2018;13(5):492-496. URL: <https://www.tandfonline.com/doi/full/10.1080/17483107.2018.1472306>
- Desmond D, Layton N, Bentley J, et al. Assistive technology and people: a position paper from the first global research, innovation and education on assistive technology (GREAT) summit. Disability Rehabilitation Assistive Technology. 2018;13(5):437-444. URL: <https://doi.org.10.1080/17483107.2018.1471169>
- Ranada A, Lidström H. Satisfaction with assistive technology device in relation to the service delivery process – A systematic review. Assist Technol. 2019;31(2):82-97. URL: <https://doi.org/10.1080/10400435.2017.1367737>
- Visagie S, Scheffler E, Seymour N & Mji G Conceptualising a systems approach to assistive technology service delivery in South Africa through the 10 `P`s framework South African Health Review, 2020



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