



Overview of the African Network for Drugs and Diagnostics Innovation (ANDI)

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WHO-TDR

on behalf of the ANDI Task Force



Major recommendations and strategies

Key recommendations for local ownership

2001
Macro-economics and Health report

Declaration of the Decade of African Traditional Medicine




2005
UN Millennium Project

G8 Gleneagles



2008
Global Strategy and Plan of Action (GSPA)



Bamako call for action

Algiers declaration

2009
WHA62

G8 L'Aquila


Key ANDI events

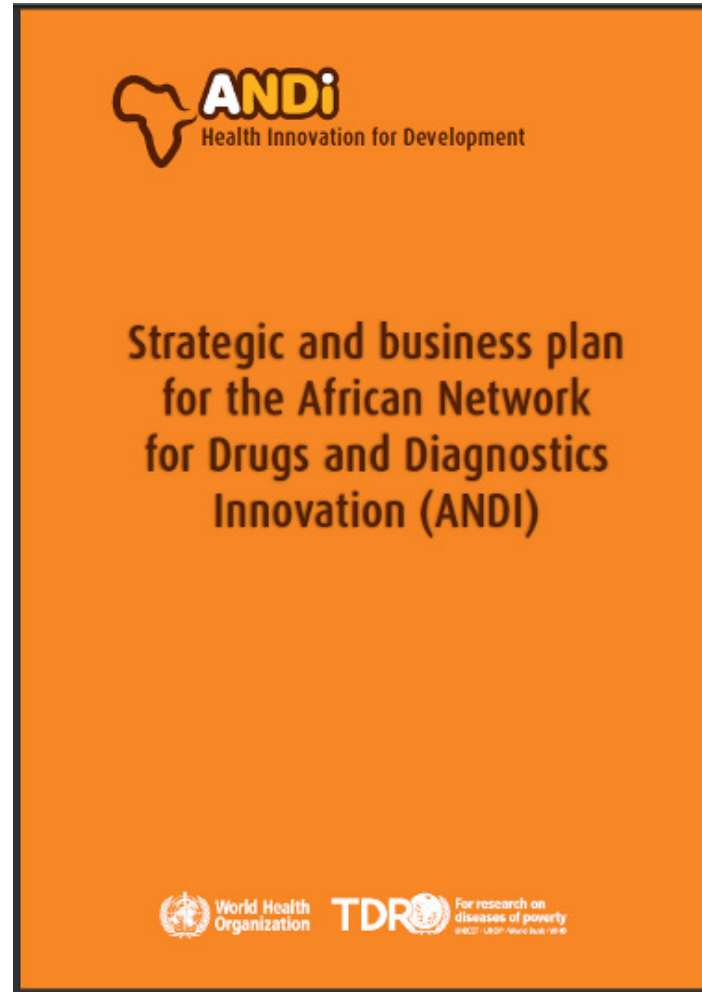
2008
1st ANDI stakeholder meeting (Abuja, Nigeria)


2009
WHA62 support
1st & 2nd ANDI Task force meetings
2nd ANDI stakeholder meeting
Implementation of ANDI



Note: Not drawn to scale

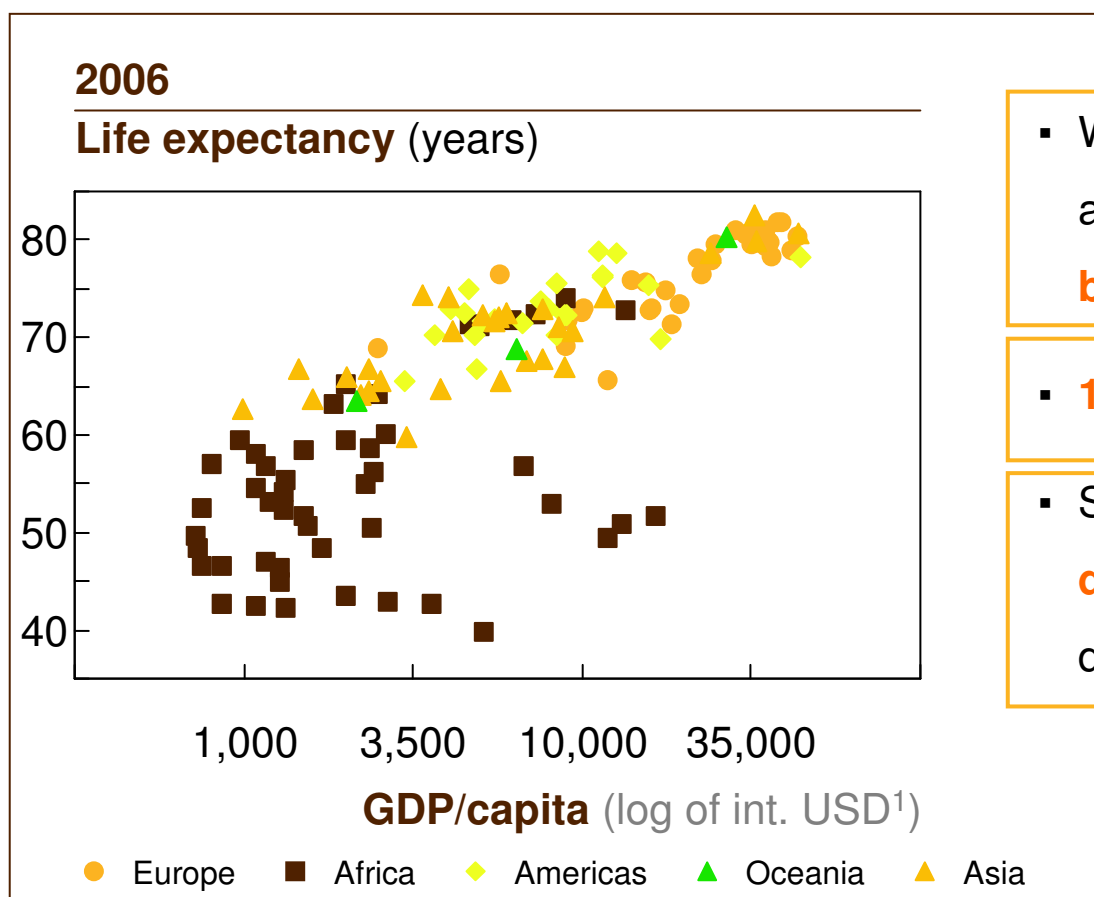
SOURCE: Institutional reports, institutional web pages, Mboya-Okeyo, Ridley & Nwaka (Lancet, 2009)

Strategic business plan adopted



http://apps.who.int/tdr/research/lead-discovery-drugs/pdf/sbp-final_web.pdf

Unmet health needs in Africa despite ongoing efforts



- With 15% of global population, Africa accounts for **25% of global disease burden in DALYs**

- **1/3** of Africans below poverty line

- Several highly prevalent **diseases currently unaddressed** by drugs or diagnostics

¹ Logarithm in base 10 of current international dollars; Purchasing power parity (PPP)-adjusted figures

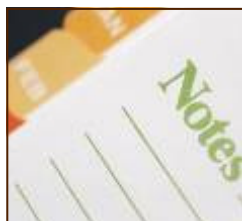
To understand the African R&D landscape, a multitude of stakeholders and sources tapped

5 Country visits



- South Africa
- Nigeria
- Egypt
- Kenya
- Burkina Faso

50 Interviews outside of Africa



- Group interviews
- 1-on-1 interviews
- Phone interviews

66 Data sources



- > 30,000 papers analyzed
- > 1,500 clinical trials analyzed
- > 160 African patents analyzed
- > 120 pharmaceutical companies surveyed

176 Interviews in Africa



- 1-on-1 interviews
- Focus groups
- Plenary sessions

Note: sources consulted included databases, institutional web pages and reports (foundations, PPPs, pharma companies)

SOURCE: Country visits, interviews

Series of challenges in the African R&D landscape emerged

1



Research gap

- Little or no clinical trials for several African diseases (e.g. HAT, Lymph Filariasis)
- Reduced research output for these diseases

2



Little intra African collaboration

- Less than 5% of published articles involve more than one African countries

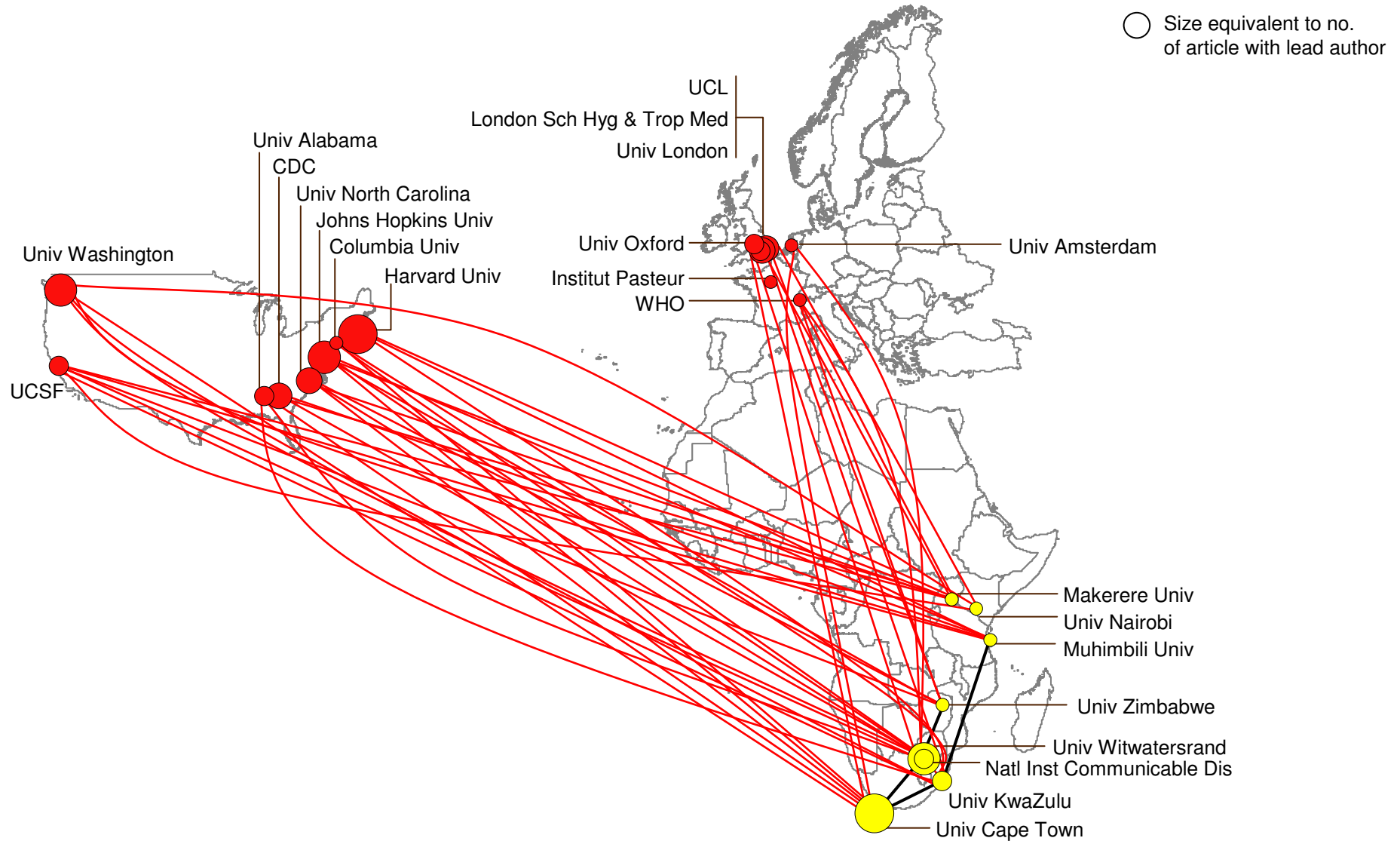
3



Significant investment gap

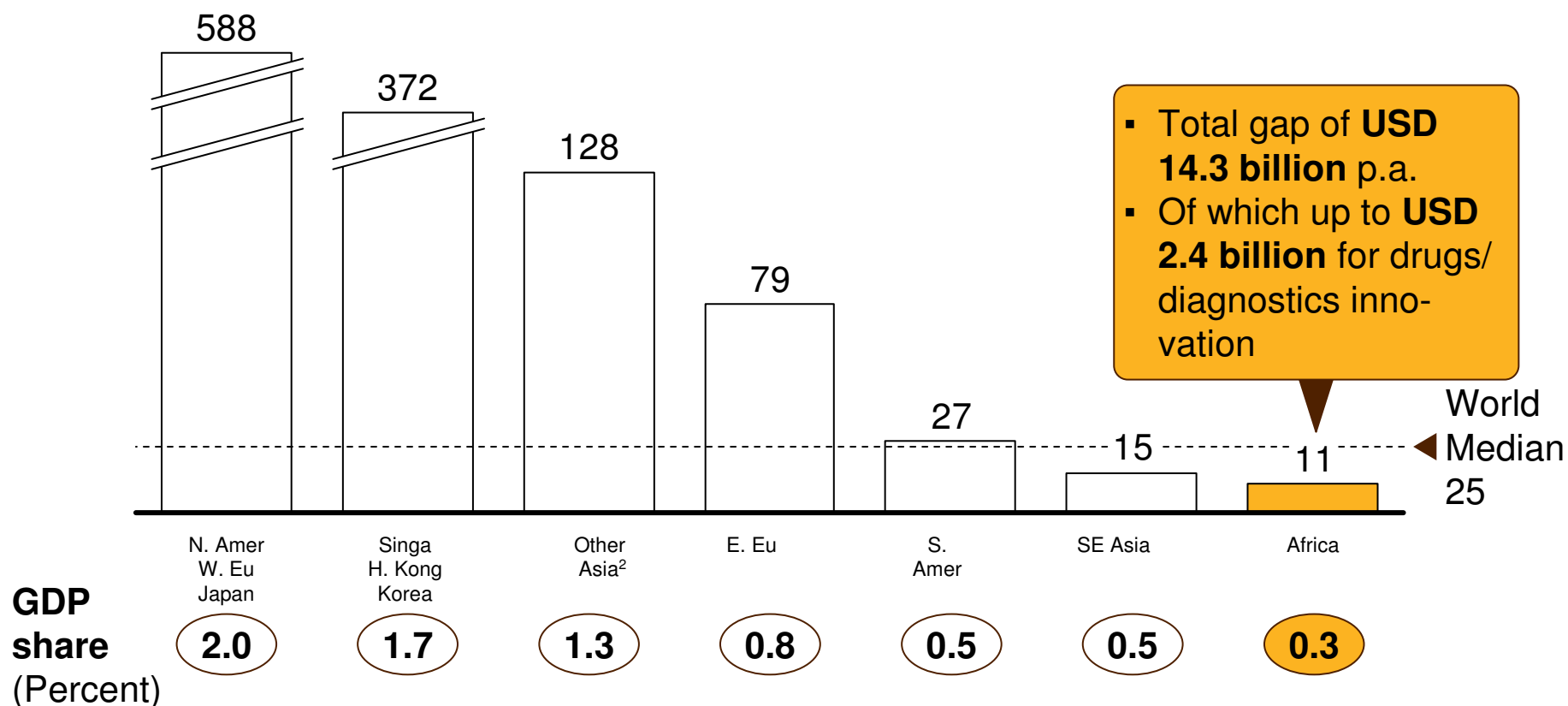
- Africa invests less than 50% of world medium on R&D
- Gap on drug/diagnostic innovation estimated at USD 1.0 - 2.4 billion/year

...HIV/AIDS research...



Significant R&D investment gap, with Africa investing less than 50% of the world median

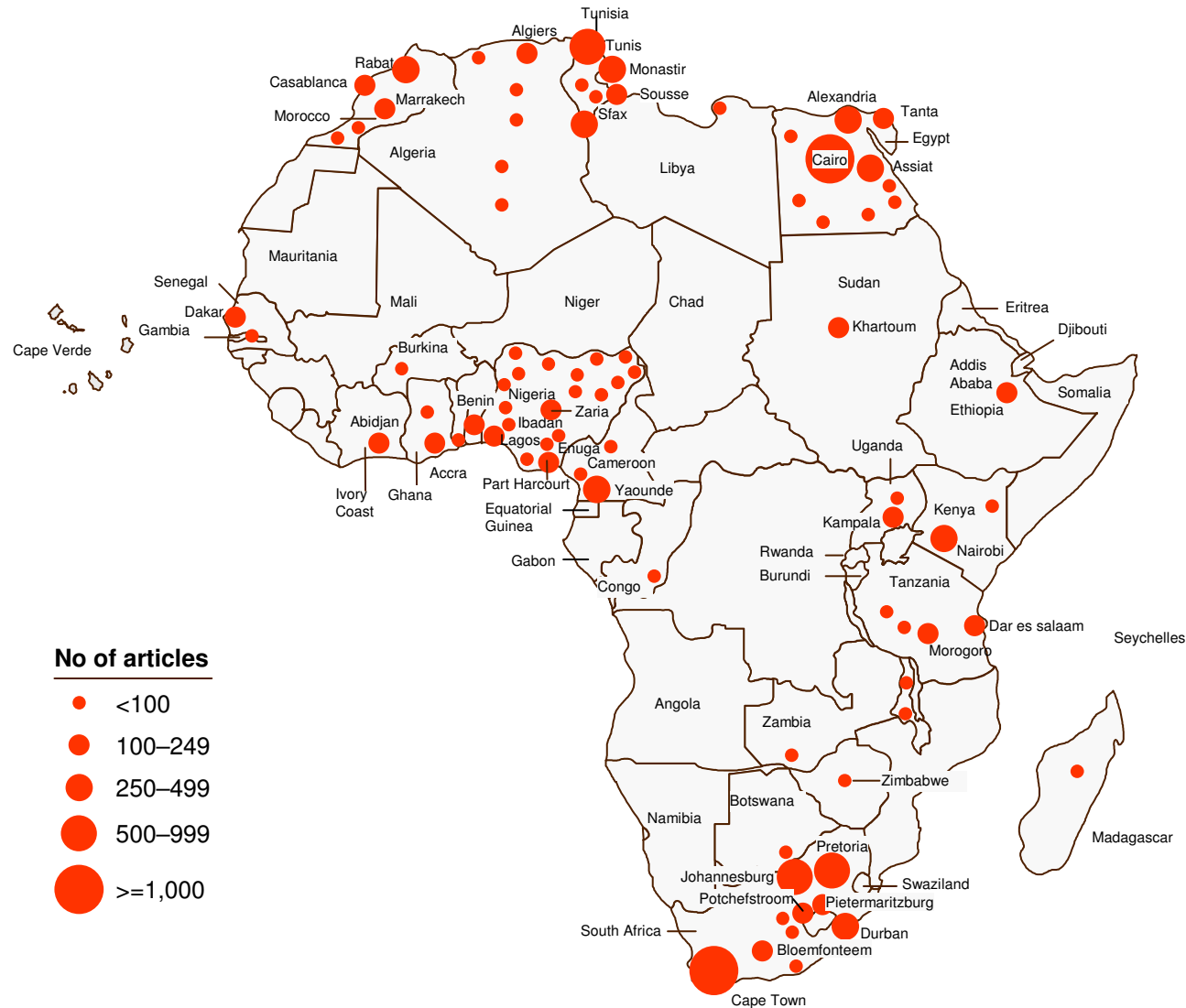
R&D spending per capita
USD PPP¹, p.a.



1 Countries mean of 2002 data in international dollars at purchasing power parity (PPP)

2 Middle East and East Asia; excludes China (49.8 USD; 1% of GDP)

Mapping of African research output reveals that several "hot spots" or "competency centers" exist today



- Cities with 30 or more articles published in the 2004 - 08 period
- Total of 90 cities in 27 countries
- 16,647 biomedical articles led by African authors included in analysis

Note: Only top 40 cities by research output labeled

SOURCE: Thomson Web of Science

In addition, some African centers show patent activity in the biomedical areas



Note: Patents published in the period 2004-2009 by WIPO or the US and European patent offices with at least one assignee from Africa (under under International Patent Codes A61K or A61P)

ANDI's Mission and Vision seeks to overcome challenges



Mission Statement

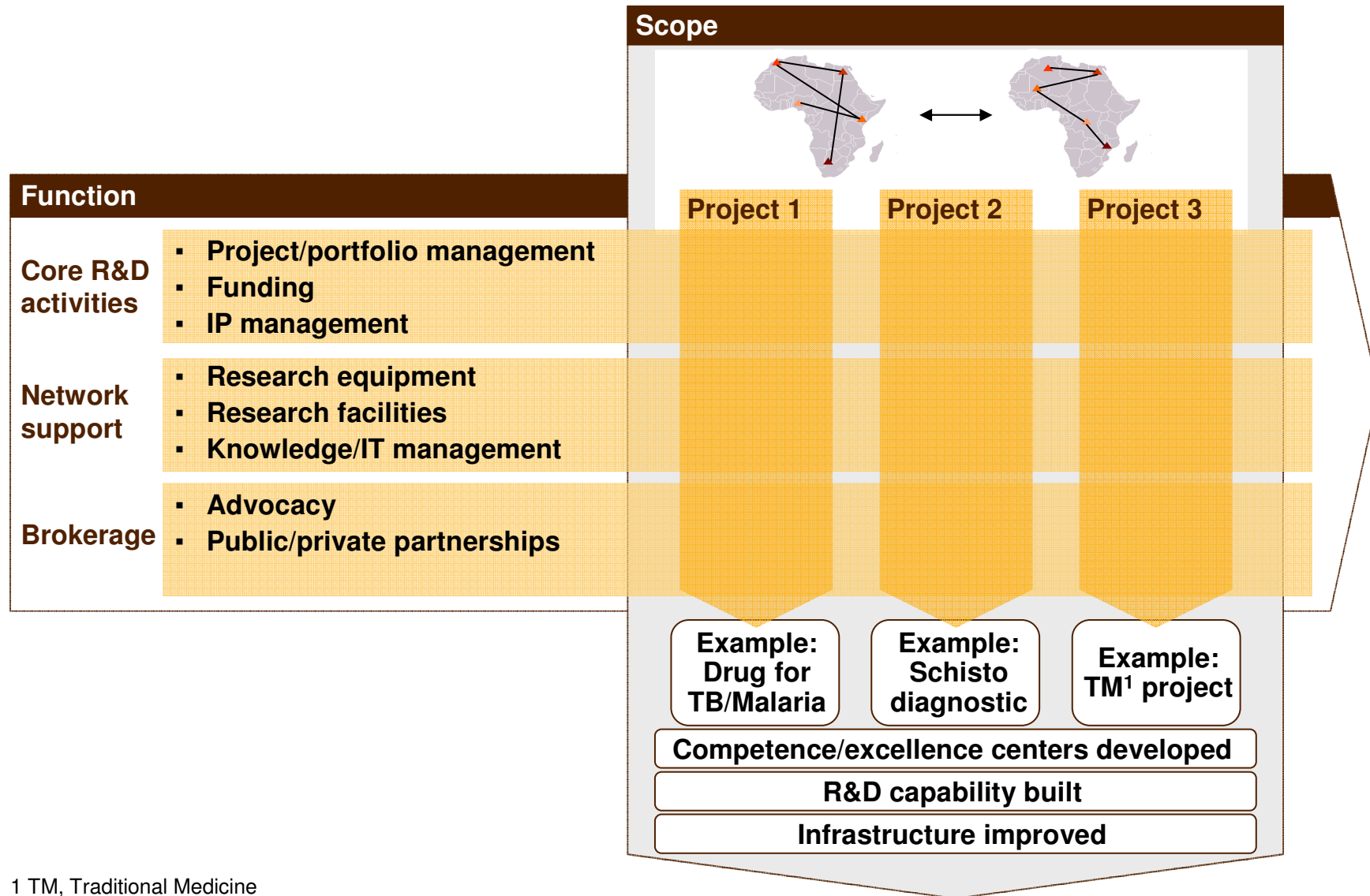
"To promote and sustain African-led health product innovation to address African public health needs through assembly of research networks, and building of capacity to support human and economic development"



Vision

"Creating a sustainable platform for R&D innovation in Africa to address Africa's own health needs"

The proposed business model of ANDI



1 TM, Traditional Medicine

SOURCE: Abuja meeting, Country visits, interviews, Task Force meetings

ANDI is unique, compared to other initiatives

- *African-led* – Projects driven by local investigators

- *African-oriented* – with agenda aligned with local priorities

- *Sustainability* – Focus on:
 - Creating a backbone for product innovation, adapted to evolving health needs
 - Moving products along the R&D value chain

- *African & external interface* – Partner for other organizations operating in Africa, in line with the GSPA



Organization and governance structure - Board and Secretariat

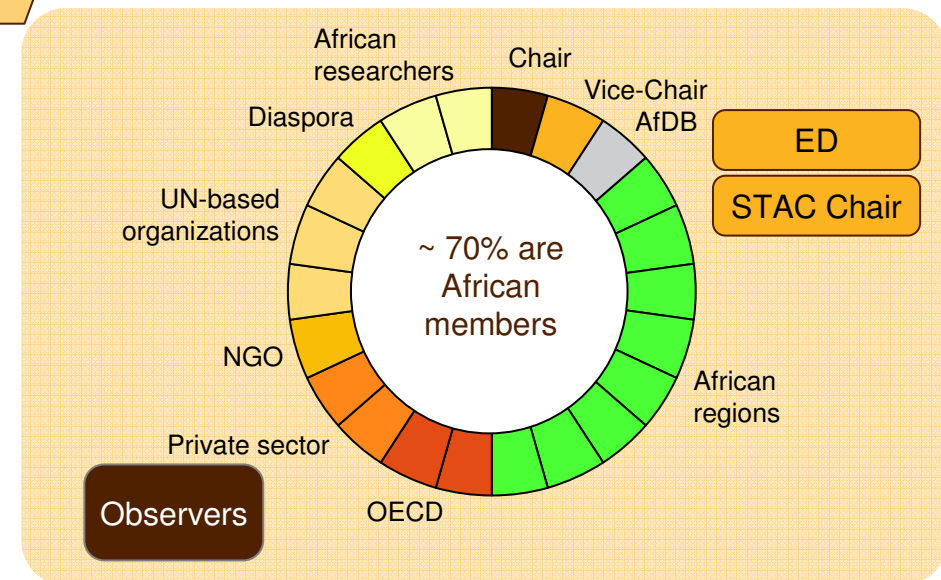
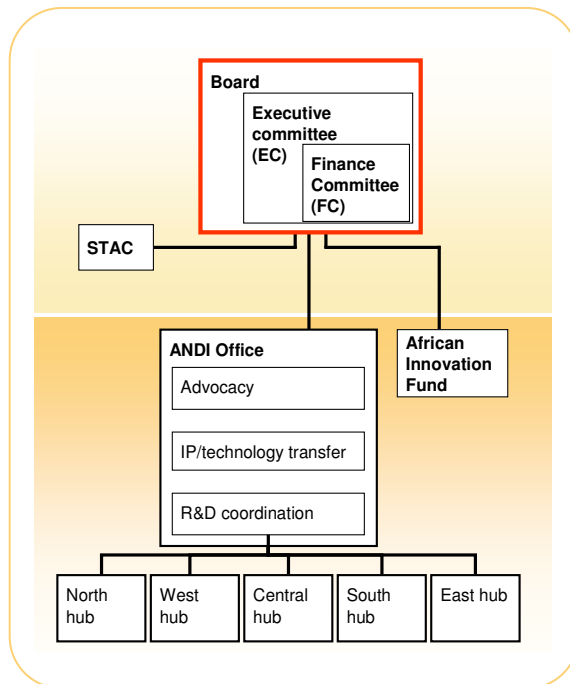
Board

Overview

- Long-term strategy setting
- Determining scientific focus
- Oversight of Executive Director (ED)
- Oversight (via EC) of ANDI's office
- Oversight (via FC) of budget and accountability/sustainability of African Innovation Fund

Key facts

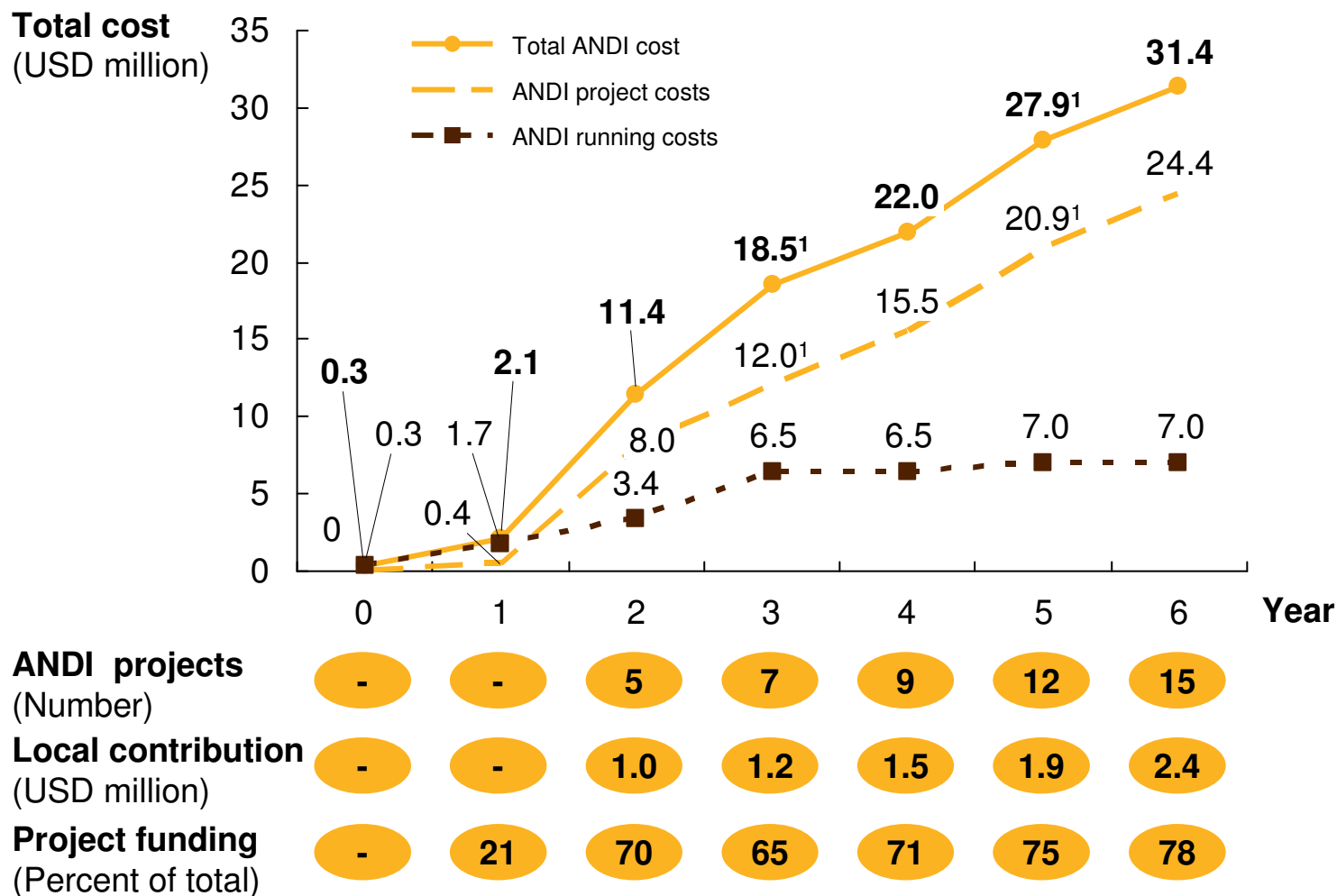
- Reflection of ANDI's stakeholders and needs



ANDI's Approach to IP

- Need for IP management identified in R&D landscape mapping activity
- WIPO working with ANDI task force to develop IP strategy (cf SBP)
 - Possible areas of support identified:
 - Assistance on IP management for projects incl preparation of MTA, CDA and collaborative agreements
 - Training on IP management (workshops, etc)
 - Regular mapping of R&D landscape in Africa
 - Design of a network IP policy

Annual budget ~USD 31 M by 2015 for 15 network projects



¹ Including one-off costs

Implementation of ANDI – interim & definitive hosting plan

