

Accelerating the licensure of Lassa vaccines Generating robust evidence on vaccine efficacy and safety

Vaccine R&D and Manufacture in Africa

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Vision for African vaccine manufacturing

**To ensure Africa has timely access to vaccines to
protect public health security, by establishing a
sustainable vaccine development and manufacturing
ecosystem in Africa**

The AU has set a goal to ensure 60% of the vaccines administered in Africa are locally manufactured and mandated the PAVM to oversee this task

Context

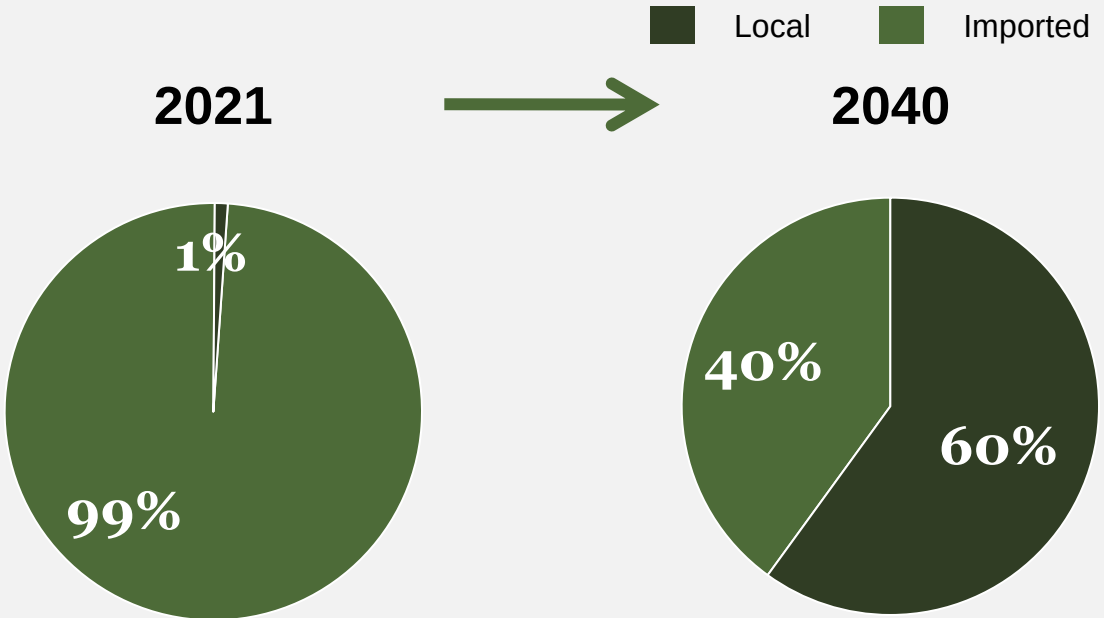


The African Union calls for a **New Public Health Order** aimed at safeguarding the health and economic security of the continent



The first pillar of the New Public Health Order is **expanding manufacturing of vaccines, diagnostics and therapeutics¹**

Ambition to be enabled by the Framework for Action



The African Union has set a goal to **increase vaccine manufacturing on the African continent to meet 60% of the demand by 2040** and mandated the Partnerships for African Vaccine Manufacturing (PAVM) to **develop a Framework for Action to execute this**

1. Other pillars include: Strengthened public health institutions, Strengthened public health workforce, Respectful, action-oriented partnerships

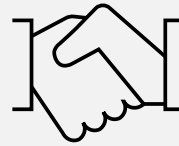
The PAVM was established under the Africa CDC with four broad objectives to guide its operations



PAVM's four broad objectives



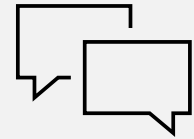
Steward a continental strategy that maintains scale and cost-competitiveness of local manufacturing and promotes equity and security for all



Support partnerships to **create a conducive business environment** that will encourage the emergence of a thriving manufacturing base



Play **intermediary and partner role** between Member States and the **global community of supporters** on an as-needed basis



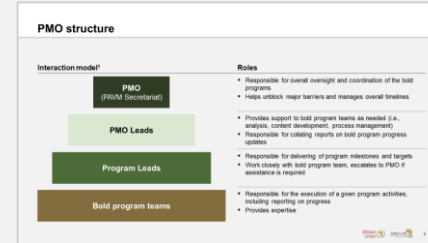
Communicate updates and serve as the **central source of information for Africa Vx manufacturing**

The PAVM has maintained its momentum into the implementation phase of the initiative in 2022

FFA has been endorsed by AU member states at the Heads of State Assembly



Framework for Action officially released to general public



Bold program task-teams reconvened with weekly meetings to drive implementation



Many implementation lead organisations for FFA bold programs **identified**



Project Management Office (PMO) to oversee implementation of FFA **set up**



Market Intelligence and Demand Workshop organized for stakeholders to establish a vaccine procurement architecture for the continent

February 2022

March 2022

June 2022

PAVM's journey has been structured in 3 phases

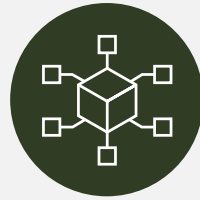
● Deep dives to follow



Phase 1

Getting the PAVM Task Force up and running

Definition and establishment of the PAVM Task Force and its workstreams



Phase 2

Developing a detailed Framework for Action (FFA)

Stand up the PMO
Operationalization of the PAVM Task Force
Lead the key analysis for each workstream in collaboration with the PAVM Task Force
Definition of action plans for each workstream and integrating them into a Continental Framework for Action (FFA)



Phase 3a

Developing FFA implementation plan and release support

Strengthen execution of the PMO
Onboard implementing partners and set up the bold program teams
Develop detailed FFA implementation plans
Initiate the first steps of the FFA's implementation plan



Phase 3b Implementation of the FFA

Ongoing implementation of the FFA bold programs

PAVM developed a continental strategy that outlines diseases, technology platforms and manufacturing value chain steps that Africa needs to prioritise

☐ Vaccine exists ☐ Vaccine does not yet exist

Potential disease prioritization



Prioritized 22 diseases...

Legacy				Expanding		Outbreak	
Diphtheria	Hepatitis B	Measles	Meningococcal	HPV	Pneumococcal	Ebola	Influenza
Whooping Cough	Yellow fever	Typhoid fever		HIV	COVID-19	Chikungunya	Lassa fever
Tetanus	Tuberculosis	Cholera		Malaria	Rotavirus	Rift valley fever	Disease X

Technology focus



... requiring a breadth of technology platforms...

Traditional			Innovative		
Live attenuated	Inactivated virus	Subunit	Virus-like particle	Viral vector	RNA/DNA

Potential value chain focus



... along the different steps of the value chain

Fill & Finish (F&F)

Fill & finish for all priority vaccines, enabling achievement of local production targets.

Drug Substance (DS)

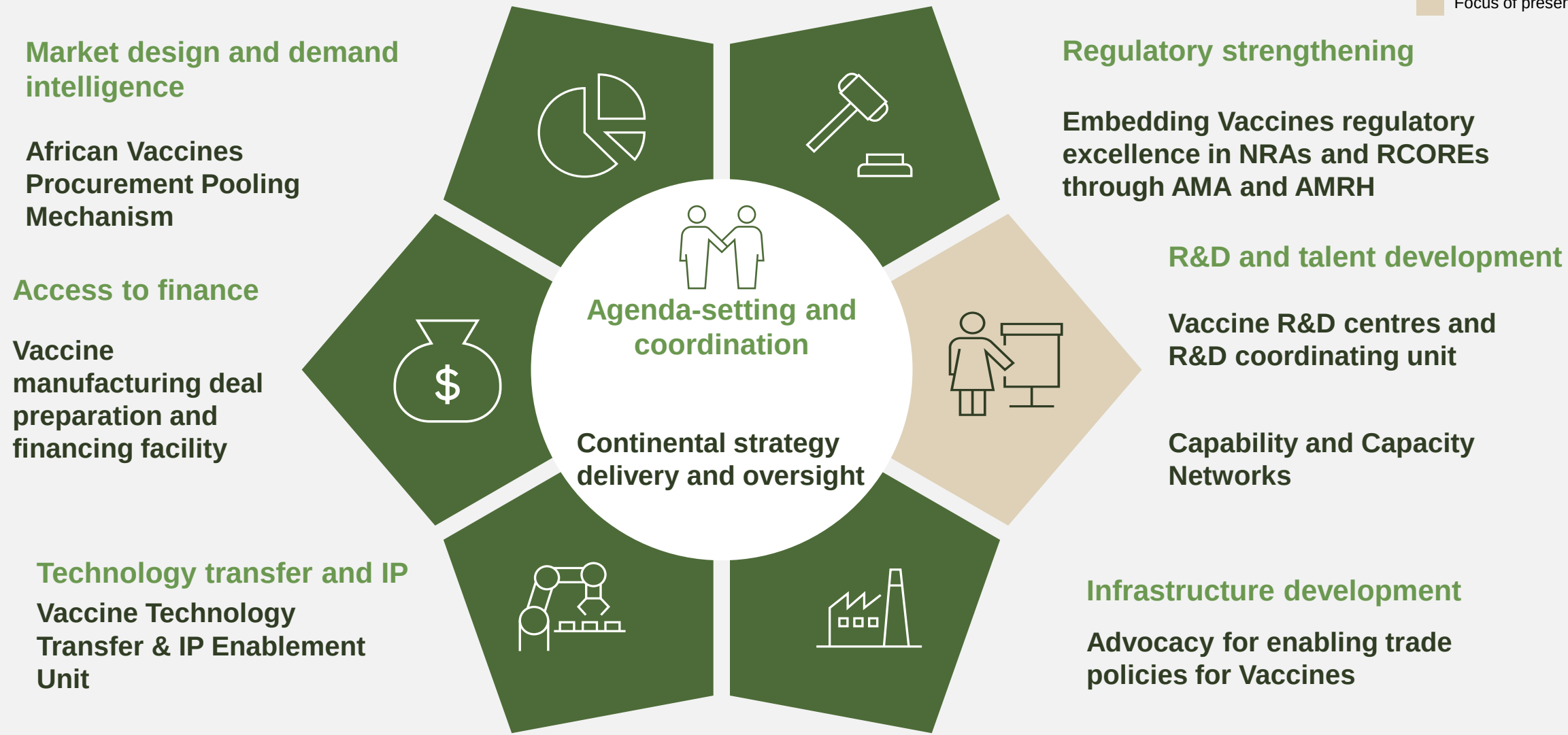
Expand drug substance mostly in established platforms

R&D

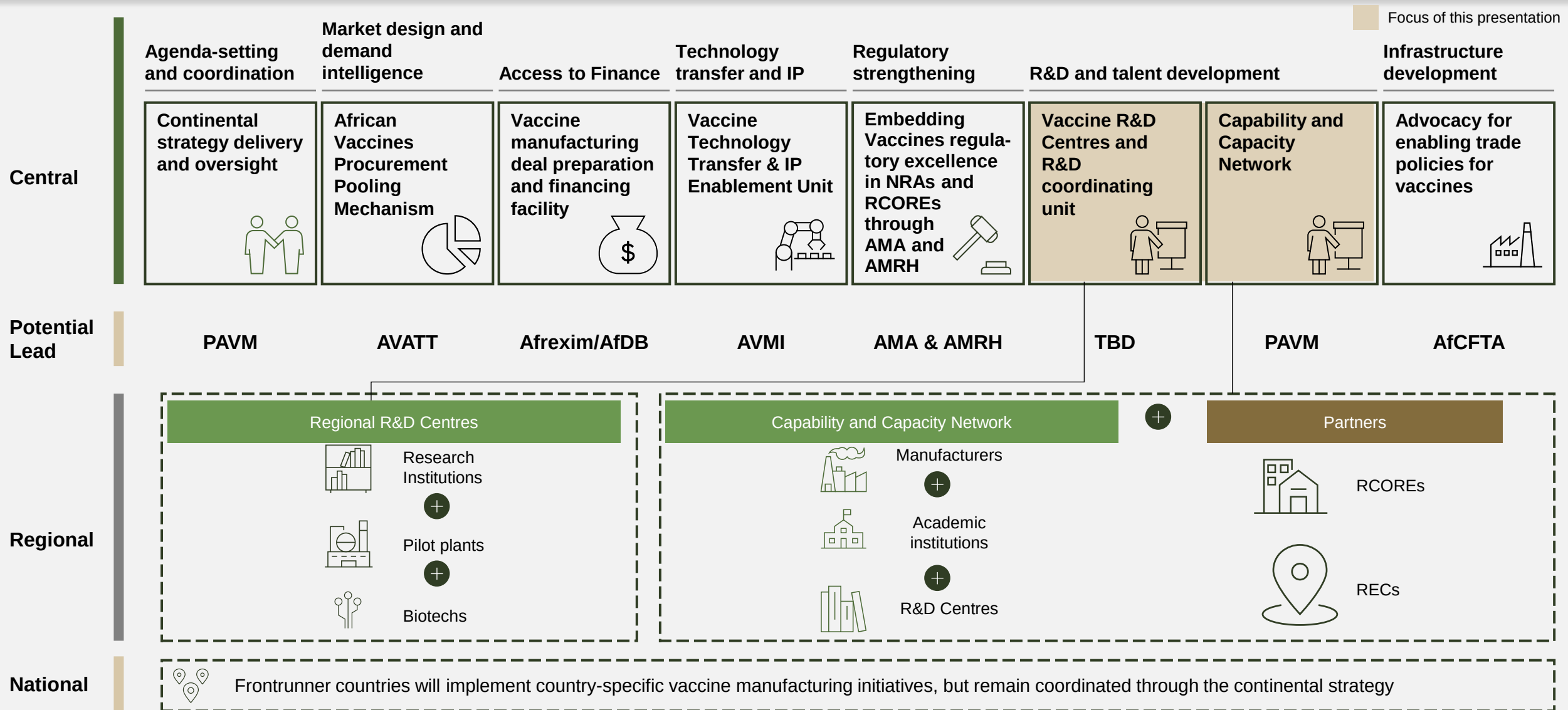
Expand R&D activities to develop new vaccines for Africa, support more efficient manufacturing and improve vaccine characteristics

R&D and talent development are two of the 8 bold programs which PAVM have defined to support the vaccine manufacturing ecosystem and continental strategy

Focus of presentation



Partnerships will be key to implementing these bold programs and PAVM welcomes all stakeholders to play a role





For each of the 5 African Union regions, we have identified countries with stronger R&D activity

Clinical Trial Pre-clinical research Biotech Disease Hub activity R&D activity

This analysis shows **the current activity in each of the 5 hubs**. To cover all R&D activities end-to-end on the value chain, all these countries require additional capacity and talent development.

PRELIMINARY

Egypt

- 3% of clinical trials;
6 clinical research centers
- 17% of preclinical trials;
9 research institutes
- Malaria, pneumonia, tuberculosis,**

Mali

- 8% of clinical trials;
4 clinical research centers
- 3% of preclinical trials;
1 research institute
- Malaria, Ebola, Diphtheria**

Democratic Republic of Congo

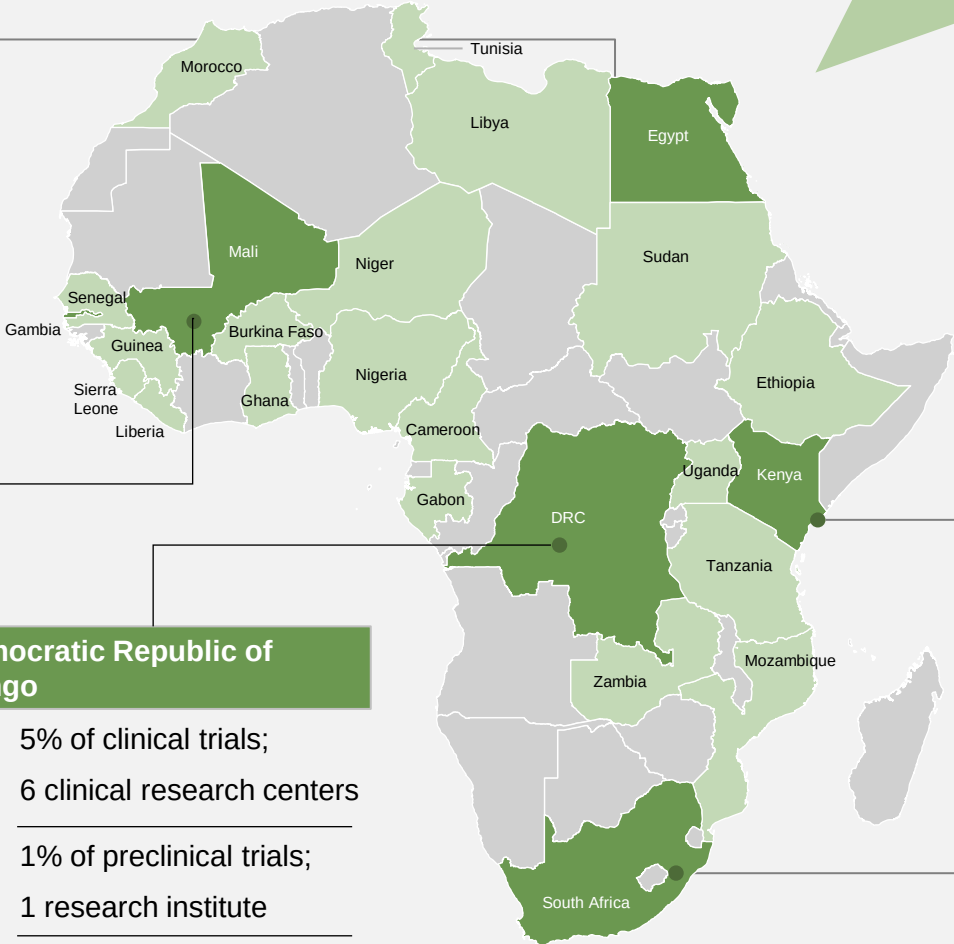
- 5% of clinical trials;
6 clinical research centers
- 1% of preclinical trials;
1 research institute
- Ebola, Hepatitis B, HPV**

Kenya/Uganda

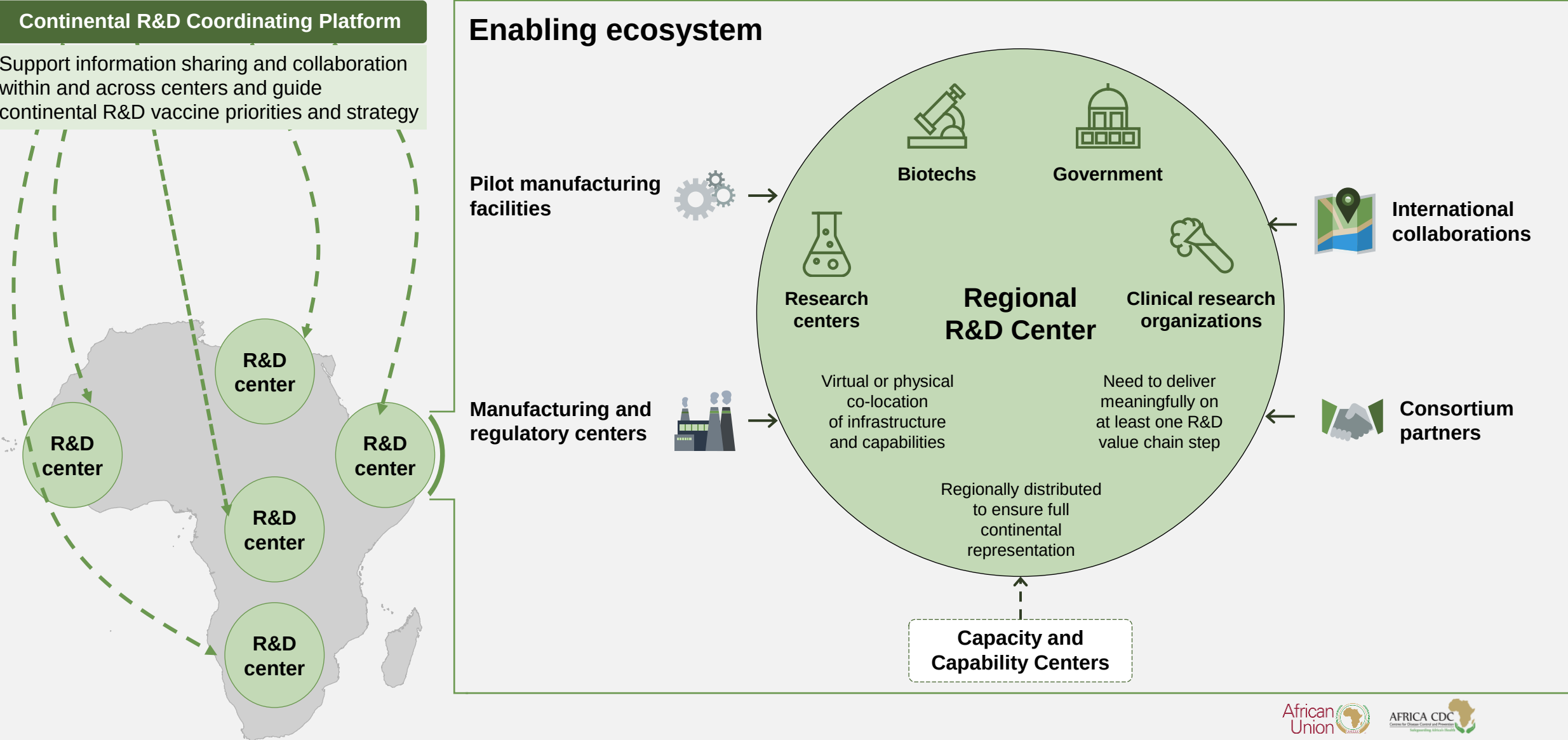
- 14% of clinical trials;
9 clinical research centers
- 6% of preclinical trials;
5 research institutes
- HIV, Tuberculosis, Malaria, Ebola**

South Africa

- 26% of clinical trials;
32 clinical research centers
- 30% of preclinical trials;
25 research institutes
- 85% of relevant biotech
- HIV, COVID-19, Tuberculosis, Pneumonia**



R&D centers will regionally consolidate infrastructure, capacity and expertise across a given portion of the R&D value chain supported by a Coordinating Platform



PAVM is creating a Capability and Capacity Network model that comprises of educational industrial and regulatory institutions to build talent and capabilities

Capability and Capacity network coordination

Manage program requirements

Act as a **networking and communication platform**

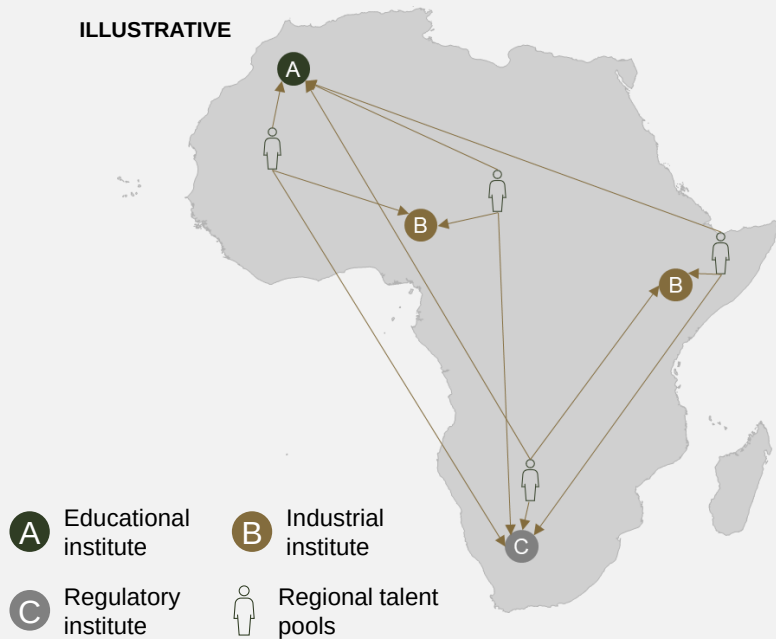
Coordinate funding for programs

Track needs and talent across the ecosystem

Facilitate partnerships with international & local players

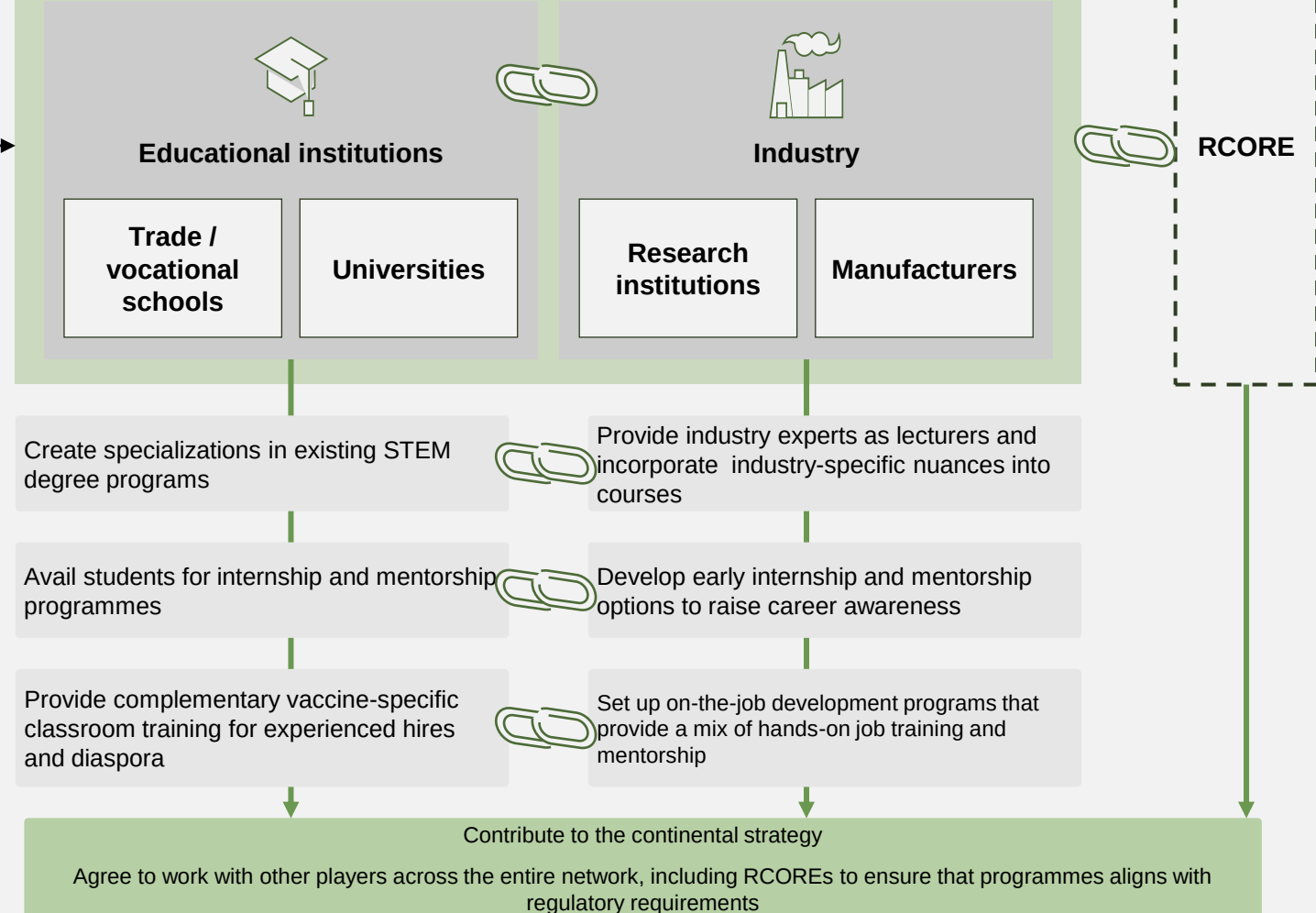
Support pipeline development via youth awareness campaigns or similar programs

ILLUSTRATIVE

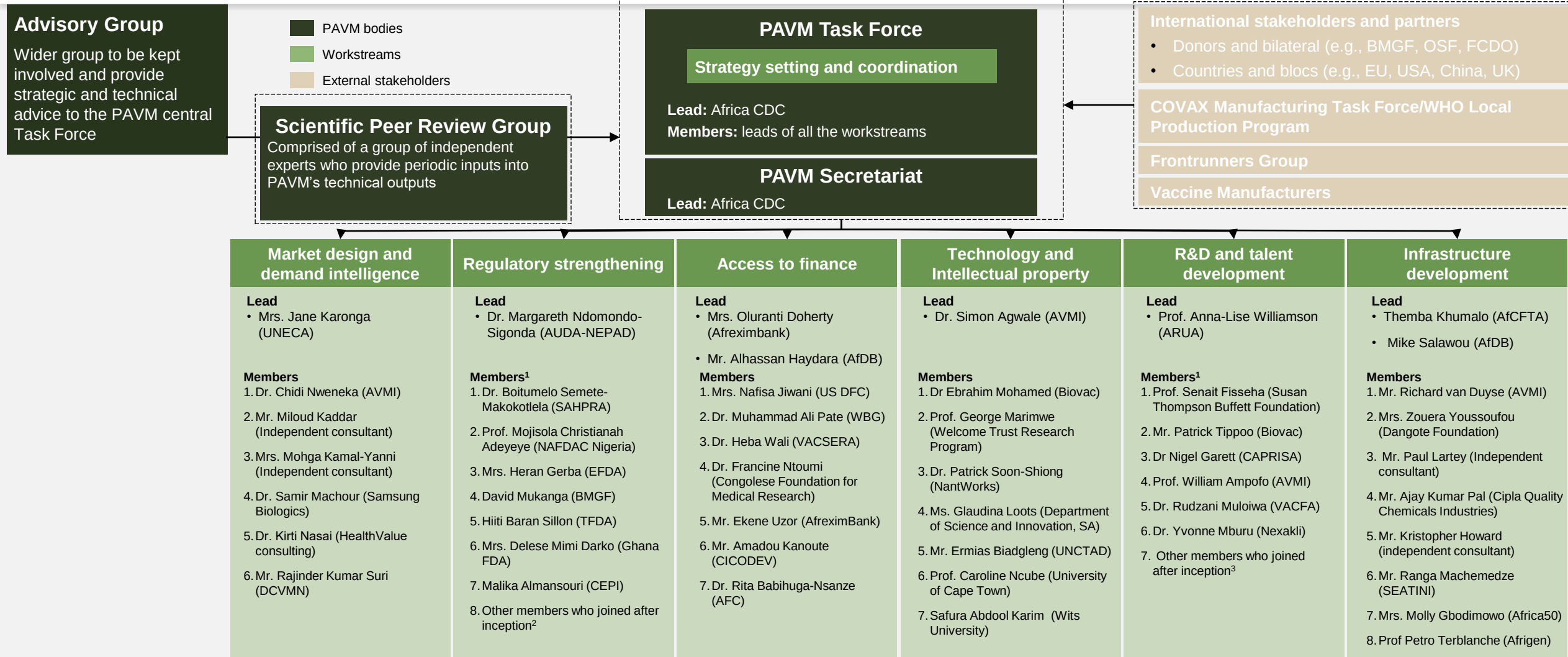


→ Locations that individuals need to move to be trained

Network composition



Acknowledgment



1. Listed members who joined at the inception and stayed active to date

2. Bartholomew Dicky Akanmori (WHO-AFRO), Houda Langar (WHO-EMRO), Elisabeth Ludeman, Khadidiatou Aw (USAID), Prof. Emile Bienvenu (Rwanda), Dr. Dalia Abouhussein (Egypt), Dr. Adam Fimbo (Tanzania), Prof. Bouchra Meddah (Morocco), Dr. Oumy Ndao (Senegal), Dr. Fenina Nadia (Tunisia), Dr. Stephen Ghanie (Botswana), Dr. David Nahamya (Uganda), Dr. Fred Siyoi (Kenya)

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THANK YOU



LEARN MORE AT

africacdc.org/covid-19

Safeguarding Africa's Health