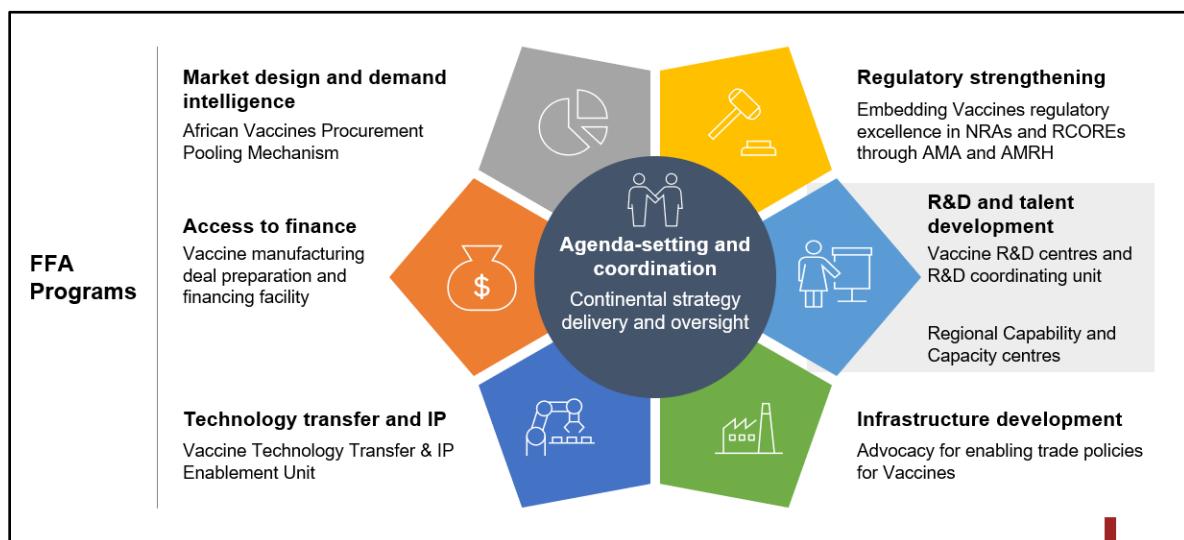


Request for Proposals: Establishment of Regional Capability and Capacity Networks for Biomanufacturing Workforce Development

1. Background

In 2021, The Partnerships for African Vaccine Manufacturing (PAVM) was established within the Africa CDC by the African Union (AU) to meet its goal to produce 60% of the vaccines administered on the continent locally by 2040. In March 2022, the PAVM published the Framework for Action to detail the approach through which the AU's goal would be attained. This culminated in the establishment of eight bold programs [Exhibit 1], including R&D and talent development¹.

Exhibit 1: FFA bold programs



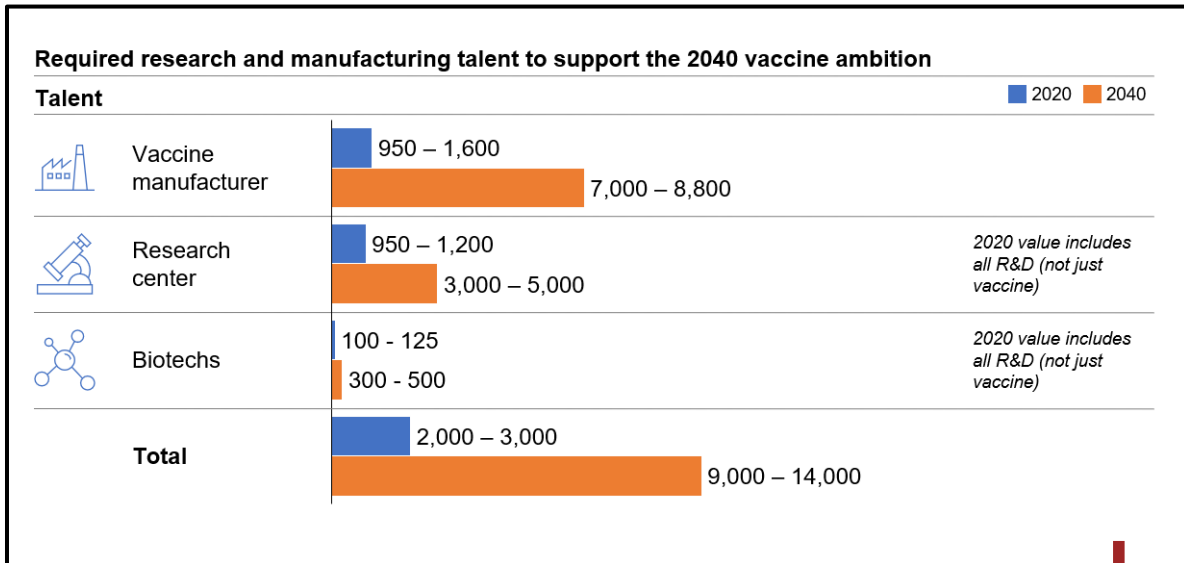
The R&D and talent development bold programmes are now independent as opposed to the initial establishment. Africa needs a skilled workforce to support the vaccine manufacturing ecosystem if it is to fulfil the 2040 goal. To this end, the PAVM will create Regional Capability and Capacity Networks (RCCNs) to support the development and establishment of sustainable workforce development programmes for the vaccine manufacturing ecosystem.

The RCCNs will comprise partnerships between training providers (local universities and technical & vocational training (TEVET) institutions), manufacturers, research and development (R&D) organizations, and national regulatory authorities (NRAs). The RCCNs will implement training initiatives to achieve three core objectives: build and maintain a skilled biomanufacturing, R&D, and regulatory affairs workforce to enable vaccine manufacturing and R&D on the continent at scale as per the developed [Vaccine R&D and Vaccine Manufacturing Competency Frameworks – Africa CDC](#); implement the recommended [Business and Operational Models for African Biomanufacturing Training Initiatives – Africa CDC](#); and incentivize vaccine R&D activities in Africa.

¹ [PAVM Framework-for-Action](#)

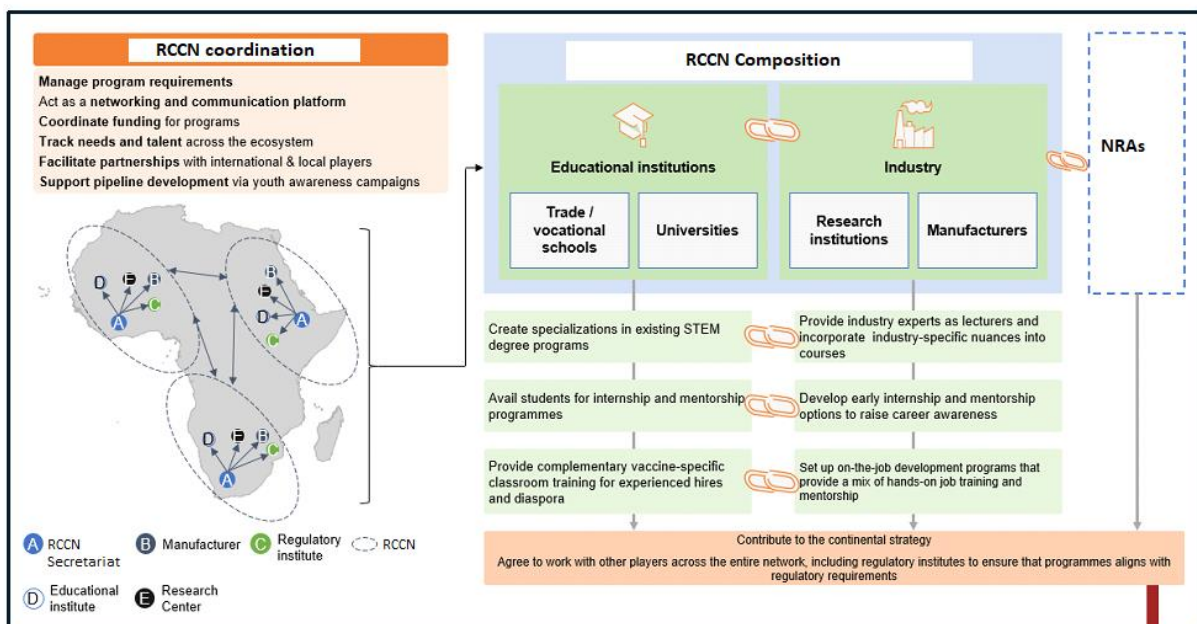
According to an expert analysis and survey of manufacturers on the African continent, 12 plants from 3 countries (China, India, Korea), conducted by McKinsey in 2021, Africa currently manufactures ~1 billion vaccine doses and has ~2,000-3,000 FTEs employed in vaccine research and development and manufacturing positions as of 2020. The study estimated that to meet the AU's ambition of producing ~2.7 billion doses by 2040, ~9,000-14,000 FTEs are needed [Exhibit 2].

Exhibit 2: Research and manufacturing FTE requirements, 2020 (existing) vs 2040 (forecast)



The RCCNs will operate through a network model which will be representative of the different regions in Africa. [Exhibit 3].

Exhibit 3: RCCN Concept Illustration



Africa CDC requests proposals to establish and operationalize RCCNs across the continent to respond to short-, mid-, and long-term Africa's vaccine manufacturing talent needs.

2. Objectives and Activities

The RCCNs have three main objectives, across which it will implement multiple initiatives [Table 1]:

- Establish and operate sustainable training programmes to build and maintain a skilled workforce for the vaccine manufacturing ecosystem in the regions and the continent.
- Increase the relevance of sustainably funded training and educational programs to evolving industry needs.
- Incentivize R&D activities across Africa.

Table 1: Examples of RCCCN initiatives

Objective	Initiative(s)
Establish and operate sustainable training programmes to build and maintain a skilled workforce for the vaccine manufacturing ecosystem in the regions and the continent	<ul style="list-style-type: none"> • Conduct and update comprehensive training needs assessments • Establish fellowship programs in vaccine manufacturing, Research and Development, and regulatory affairs • Establish specialized STEM programmes (Bachelors/MSc) in universities to support the vaccine manufacturing ecosystem in Africa • Establish structured internship programmes for STEM graduates to increase levels of preparedness for industry • Create on-the-job development programs for professionals to increase employee motivation • Establish TOT programmes and staff development programmes to upskill existing staff • Establish scholarship programmes for vaccine manufacturing ecosystem professionals for university programs (Bachelors/ MSC) as an incentive to increase student recruitment • Develop diaspora talent return programs (with attractive incentives for highly skilled professionals)
Increase the relevance of sustainably funded training and educational programs to evolving industry needs	<ul style="list-style-type: none"> • Promote establishment of organograms promoted by the developed competency frameworks for both manufacturing and research and development • Carrying out continuous training needs assessments • Customize and update training curricula to industry needs in line with best practices • Create university networks to enrich the STEM specializations/ novel degree programs
Incentivize R&D activities across Africa	<ul style="list-style-type: none"> • Create a link between R&D and commercialization • Create R&D job placement programs

3. RCCN Selection Process

To select the RCCNs, the Africa CDC will publish a request for proposals to establish and operationalize RCCNs. The selection criteria will be as shown in Annex 1 and is based on five key dimensions (core business, regional focus, leadership, innovation, and financial) identified as important for the successful implementation of RCCN activities. The criteria also identify key performance areas within the dimensions and the evidence that must be shown to support the award of scores. An independent expert peer review committee (IEPRC) will be constituted by Africa CDC to evaluate the proposals and rate them using the scoring criteria shown in Annex 2. The scoring criteria provides the definitions of how scores will be allocated based on the results of the assessment of the key performance areas and evidence provided. In addition to the set selection criteria, the proposals will be assessed on the following:

- A. Excellence of the training programs
- B. Development plans of highly qualified personnel
- C. Networking and partnerships
- D. Knowledge and technology exchange and exploitation
- E. Management of the Network
- F. Sustainable financing plan

How to apply

Applications should be submitted via the following link:

<https://tools.africacdc.org/africacdcrc/surveys/?s=H7L7Y7CDH98CH4KJ>

For any querie, Kindly contact:

Dr. Chiluba Mwila: mwilac@africacdc.org

IMPORTANT DATES

Deadline for Application: 31st July 2024

Africa CDC welcomes applications from all qualified institutions from all AU regions.

Annex 1. Selection criteria for RCCN

Item	Key Performance Area	Criteria: Documented evidence that indicates-	Score %	Weight %
Core business dimension	<ul style="list-style-type: none"> • has the operational work system, capacity, and capability to accomplish its assigned mission to support workforce development for the vaccine manufacturing ecosystem in an outstanding manner where: <ol style="list-style-type: none"> 1. Its operational work system is aligned with regional and continental needs as determined and validated by the stakeholders and is repeatable, integrated, and applied consistently. 2. it has the capacity (environment) to develop relevant programmes to develop workforce for the vaccine manufacturing workforce in Africa (e.g., equipment, facilities, work, and support processes exist and are in use) 3. it has the capability (leadership, both management and technical), knowledge and skills, to support workforce development for the vaccine manufacturing ecosystem. • participating institutions consistently equals or exceed established effectiveness and efficiency requirements in its measured operational performance in accomplishing the assigned mission. • Participating institutions collect and use measures to make management decisions in managing the internal business 	<ul style="list-style-type: none"> • the assigned mission of the participating institution has been authorized by official sources in their countries/regions. • the current mission and function statements of participating institution have been written in accordance with established standards, have been approved, and are accessible by stakeholders as well as program staff. • Processes to accomplish the assigned mission are documented, institutionalized, and are being implemented. • the environment, including the facilities, is sufficient and is being used to support workforce development for the vaccine manufacturing ecosystem. • knowledge and skills necessary to carry out the regional workforce development for vaccine manufacturing ecosystem are in place as part of personnel training and evaluation. • A participating organization has an operational plan for its mission in place and being implemented • Participating organization has a measurement and analysis program in place for their mandate. • The operational performance of the participating institution has been measured, measures analyzed, and results of the analyses stored and made accessible to key leadership personnel, appropriate stakeholders, and program staff. • The results of analyses have been and are being used to manage the program. • Results of analyses have been and are being used to identify improvements in the approach 		30

Regional Focus Dimension	<ul style="list-style-type: none"> provides measured, regional-focused performance addressing regional training satisfaction. elicits regional training needs or requirements proactively and collaboratively. responds in a timely manner to regional training requests. delivers regional-defined, high-quality training programme and services. anticipates regional stakeholder issues and problems compatible with the RCCN mandate (Example measures and indicators include workforce retention, complaints, graduate survey results, programme reliability, on-time delivery, and service response time.) 	<ul style="list-style-type: none"> regional relationships/collaborations are established and maintained Regional relationships result in needs satisfaction and retention of workforce processes and mechanisms for interaction (e.g., face-face, web-based systems) have been established and implemented for – proactive elicitation and analyses of regional stakeholders' needs and constraints – translation of regional needs and constraints into program requirements and service requirements that are agreed to by the stakeholders (for example, schedules, cost, effort) regional requirements for quality attributes (e.g., confidentiality and security) are elicited, analyzed and validated Ability to offer trainings in more than one recognized AU languages Collaborations between training institutions, manufacturing industry, R&D, and regulatory bodies established 		15
Leadership Dimension	<ul style="list-style-type: none"> Participating institution has proactive leadership to create and promote an environment for empowerment, innovation, organizational agility, and organizational and employee learning Participating institution has senior leaders intrinsically involved with setting organization performance goals and expectations, setting and deploying organizational values, establishing short- and longer-term direction focused on creating and balancing value for their clients and other stakeholders. Participating institution has senior leaders who communicate values, vision, directions, key decisions, and expectations through the leadership system to all employees Participating institution has senior leaders regularly reviewing organizational performance for improvement purposes and needed actions 	<ul style="list-style-type: none"> a current vision statement developed by the organization and its senior leadership has been collaboratively established with stakeholders, and is accessible to both internal (program staff) and external stakeholders current mission and function statements have been written in accordance with established standards, and are accessible by external stakeholders as well as program staff a strategic plan is in place and is being implemented that addresses the organization's vision and strategy for advancement and sustainability – current performance goals and associated measures traceable to the strategic plan for the RCCN candidate are in place – activities to achieve the performance goals are being accomplished 		20

	<ul style="list-style-type: none"> • Participating institution has senior leaders focus on sustaining and growing the organization in terms of both the depth and breadth of its expertise • Participating institution has senior leaders that embody the value of continuous improvement through their visible, continual learning in both traditional and new areas of need • Participating institution has senior leaders who can facilitate appropriate interactions with leading academic and practitioner organizations with the fields relevant to the RCCN • Participating institution has the support of the government to spearhead efforts to develop workforce for vaccine manufacturing ecosystem 	<ul style="list-style-type: none"> • a leadership system has been established that supports the establishment, deployment, and actual activation of the strategic plan, as well as the organization's guiding principles and values • appropriate progress and success measures have been established to measure progress against the strategic plan; the measures are actively used as part of organizational progress determination • senior leaders regularly review the organization's performance (e.g., innovation, operational, financial, and others) for improvement and to take appropriate action • senior leaders communicate values, vision, directions, key decisions, and expectations through the leadership system to all employees • senior leaders are actively seeking and facilitating appropriate interactions related to the needy areas with leading thinkers within both academia and industry • Evident political will and commitment to support the operations of the participating institution 		
Innovation and Learning Dimension	<ul style="list-style-type: none"> • Participating institution has the demonstrated and proven ability to incrementally innovate and improve • Participating institution has the demonstrated and proven ability to anticipate the direction of promising solutions to address the country and problems • Participating institution has the demonstrated and proven ability to introduce and gain traction for revolutionary as well as incremental innovations • Participating institution has the demonstrated and proven ability to develop the transition mechanisms needed to turn innovations into accepted technology improvements • Participating institution has the demonstrated and proven ability to create and leverage the value network needed to support introduction and deployment of innovations that are relevant 	<ul style="list-style-type: none"> • technical and leadership staff are actively interacting with the thought leaders in the domain of vaccine manufacturing • technical and leadership staff are actively sharing learning from both internal and external interactions across the community of interest represented by the RCCN • technical staff understand and can successfully apply leading-edge technology innovation and transition processes, tools, and techniques for education • a comprehensive and proactive training program tied to skills and knowledge needed to accomplish the mission is in place and its results are documented • a continuous improvement program is in place integrating improvements in process and new technology 		15

	<ul style="list-style-type: none"> • Participating institution has an environment that fosters both incremental and innovative learning • Participating institution develops, institutionalizes and applies leading-edge technology in the accomplishment of its mission 	<ul style="list-style-type: none"> • innovation and learning performance is measured, measures analyzed, and results of the analyses stored and made accessible to the key leadership personnel, appropriate stakeholders and program staff 		
Financial Dimension	<ul style="list-style-type: none"> • Participating institution has a financial management system that supports advocating effectively for both incremental and revolutionary innovations, as appropriate for its domain • Participating institution has an established financial management system that accommodates the organization's needs to accomplish and improve its mission performance • Participating institution has and implements a financial management system that is sufficiently flexible to accommodate RCCN needs and changes in RCCN requirements • Participating institution has a financial management system that allows appropriate differentiation of non-recurring and recurring costs related to proposed RCCN innovations 	<ul style="list-style-type: none"> • a financial management system has been planned and established at sufficient granularity to permit transparency of the financial decisions to the appropriate stakeholders. • financial management is being conducted in accordance with applicable laws, regulations, policies, and assigned fiduciary responsibility • long-range planning for fiscal resources is being accomplished on a scheduled, periodic basis • financial information is accurate and available to leadership personnel, internal and external stakeholders, as appropriate • financial performance has been measured, analyzed, and results of the analyses stored and made accessible to key leadership personnel, and stakeholders as appropriate • Results of analyses have been and are being used for improvement of the financial management system and processes and to manage the RCCN candidate 		20

Annex 2: Scoring criteria for RCCN proposals.

Score %	Results	Definitions
0	No evidence as required by the criteria are available to substantiate implementation or interaction in this dimension.	
10-25	Some evidence as required by the criteria are available to substantiate implementation or interaction in this dimension. Performance in this dimension is below established requirements for the RCCN.	0 < Some < 25%
25-50	Many evidence required by the criteria are available to substantiate implementation and interaction in this dimension. Performance in this dimension is equal to established requirements for the RCCN.	25% < Many < 50%
50-85	Most evidence as required by the criteria are available to substantiate effective implementation and interaction in this dimension. Performance in this dimension is equal to or better than established requirements for the RCCN.	50% < Most < 85%
85-100	Most evidence as required by the criteria are available to substantiate exemplary implementation and interaction in this dimension. Performance in this dimension is equal to or better than world class benchmarks in the domain of the RCCN	85% < Most to All < 100%