



African Vaccine Manufacturing - 2026 Supply Landscape

June 2026

Funded by:

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An updated landscape analysis was done through AVM engagements

27 AVMs and 5 TT originators were engaged; interviews focused on most advanced suppliers. Data collected across 3 areas:

- 1 Products**
 - Current antigen pipeline and tech transfer status
 - Commercial ambitions and indicative timelines
- 2 Facility progress**
 - Existing commercial facilities and planned expansion/construction timelines
- 3 Key challenges affecting commercial plans**
 - Regulatory
 - Market and demand
 - Finance
 - Access to products
 - Workforce

The analysis was designed to address three objectives:



Track **progress** made since 2024 and validate expected commercialization timelines
































Identify key **challenges** faced by AVMs which pose risks to commercialization timelines

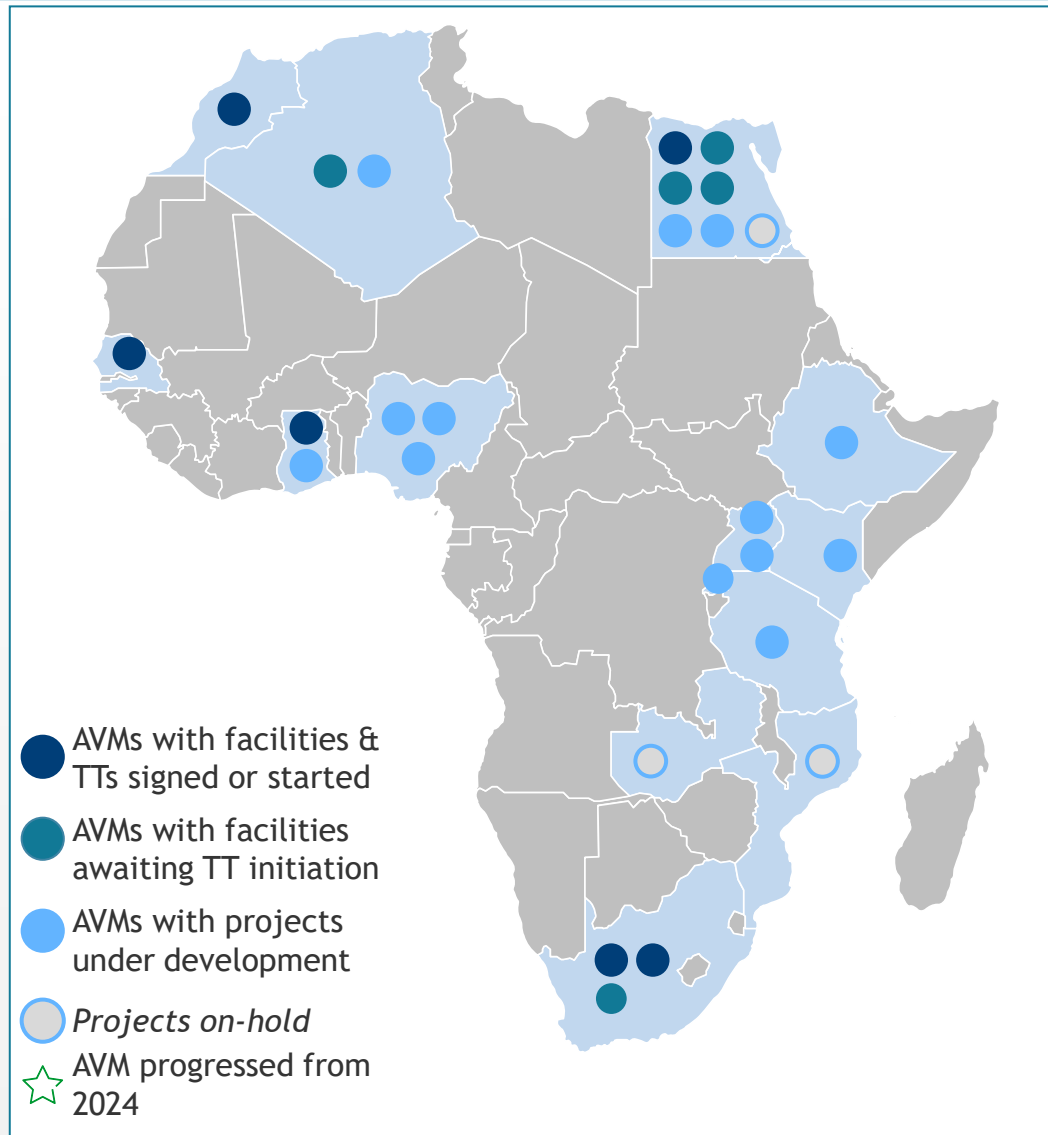


Identify key **enabling conditions** to support timely AVM commercialization

As of June 2026, 11 AVMs have commercial-scale facilities, including 6 with ongoing TTs; 13 additional projects remain under development



Seg 1: AVMs with commercial facilities; TTs signed or underway	<ul style="list-style-type: none">  Vacsera  Atlantic Lifesciences   Marbio  IP de Dakar  Aspen Pharmacare  Biovac
Seg 2: AVMs with commercial facilities awaiting TT initiation	<ul style="list-style-type: none">  Saidal¹  Biogeneric  Eva Pharma  Minapharm  Afrigen 
Seg 3: Projects under development	<ul style="list-style-type: none">  BioNTech  IP de Algerie¹  Gennecs  VBC  Shieldvax  DEK  BioVax  BVNL²  Innovative Biotech  Afriqvax³  DEI Biopharma  VAI Uganda  Africare Biopharma³
Projects on hold	<ul style="list-style-type: none">  Mozambique Holdings  Polygon  Yash Life Pharmaceuticals



Key Findings
<ul style="list-style-type: none"> • Segment 1: 6 suppliers have TTs signed or underway <ul style="list-style-type: none"> • Atlantic Lifesciences started one TT since 2024 • Segment 2: 5 suppliers have commercial facilities awaiting TT or can start production <ul style="list-style-type: none"> • Afrigen has completed facilities • Segment 3: 13 projects are still under development • 3 projects are on hold

1. Manufacturer could not be reached for this landscape and categorization based on publicly available information; 2. As per informal meeting with BVNL; 3 Newly included in the landscape
 Source: CHAI 1-on-1 interviews with AVMs held throughout February 2026

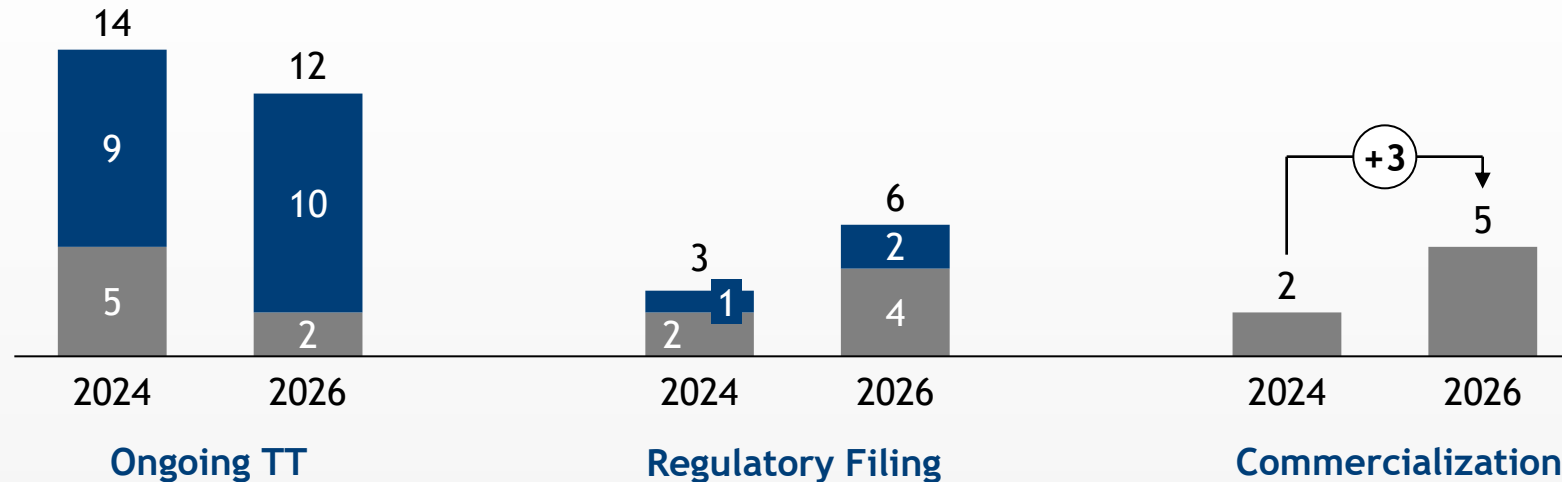
Since 2024, TT activity has progressed with new TTs initiated, new regulatory filings, and 3 new domestic products commercialized



Number of ongoing AVM technology transfers

Includes only DP/DS TTs; Excludes Covid, Packaging, MoUs and early-stage discussions

■ Continental ■ Domestic



Notes	Continental <i>(since 2024)</i>	<ul style="list-style-type: none"> • 2 TT initiated • 1 TT progressed 	<ul style="list-style-type: none"> • 1 new filing submitted 	<ul style="list-style-type: none"> • n/a
	Domestic <i>(since 2024)</i>	<ul style="list-style-type: none"> • 2 TTs initiated • 5 TTs progressed: <ul style="list-style-type: none"> • 3 moved to regulatory filing • 2 got NRA approval and moved to commercialization 	<ul style="list-style-type: none"> • 3 new filings submitted • 1 filing got NRA approval and moved to commercialization 	<ul style="list-style-type: none"> • 3 new commercialization's

Note: TT = Technology Transfer

Source: CHAI 1-on-1 interviews with AVMs held throughout February 2026; CHAI/PATH 2024 Supply and Demand Landscape

There are 11 products across 8 antigens expected to achieve WHO PQ and enter the continental market in the next 5 years



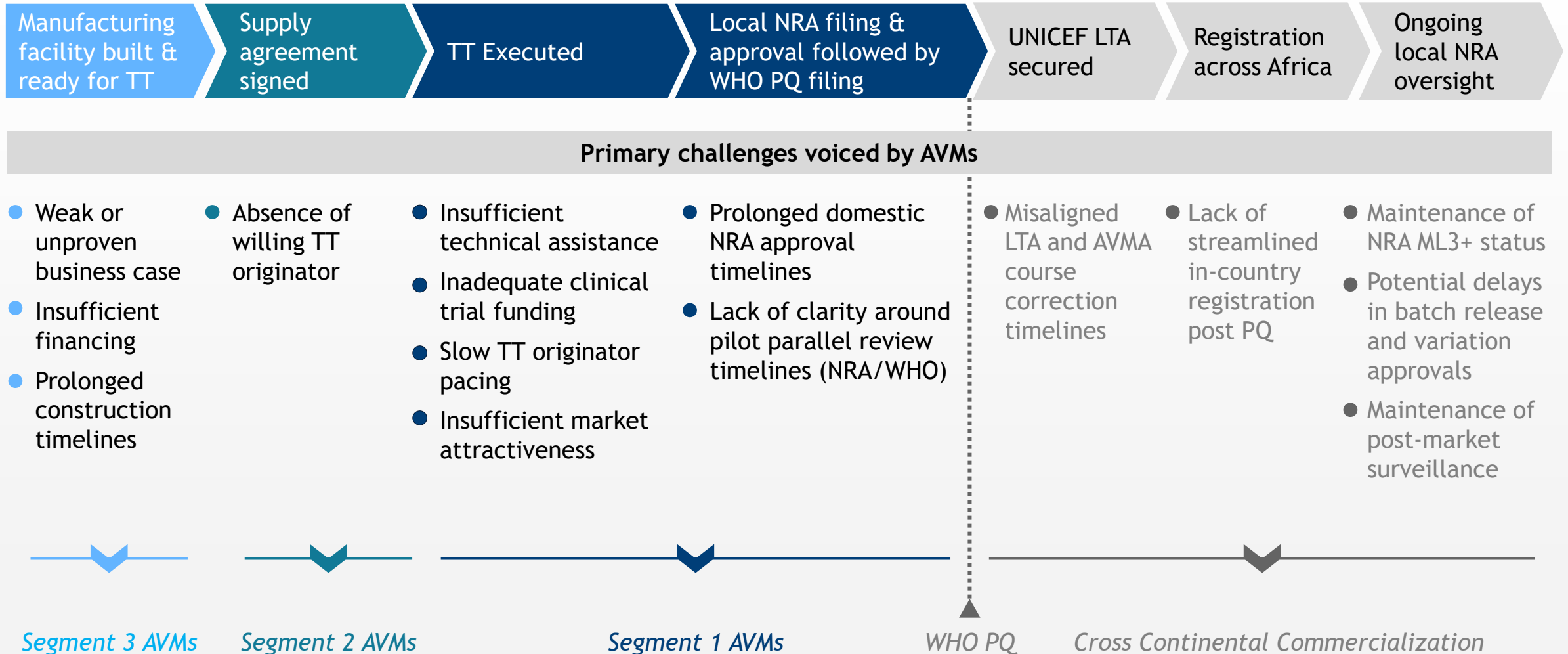
■ Drug substance ■ Drug product



Antigen	Country & manufacturer	Year of product entry	Africa demand 2030
Hexa (wP)	Aspen	2026-2031 ²	57 M
PCV ¹	Aspen, Biovac		110 M
MMCV	Aspen, Biovac		5 M
Rota	Aspen		97 M
OCV	Biovac		30 M
IPV	Biovac		34 M
	Vacsera		
YF	IPD		39 M
MR	IPD		128 M

Aspen is making a PCV-10 and Biovac is making PCV-14; 2. Estimated timelines premised on current trajectories
 Source: CHAI 1-on-1 interviews with AVMs held throughout February 2026; Linksbridge GVMM 2026 (accessed 7 Apr 2026)

The path to commercialization is long and AVMs face challenges at each step; WHO PQ is a key milestone but not the finish line



Continental | Key challenges have already slowed continental AVM commercialization, with further risks ahead



Challenge	Factors which have caused delays	Factors that might add further delays	Non-exhaustive
Regulatory	<ul style="list-style-type: none"> ○ Prolonged NRA approval time (up to 3 yrs) 	<ul style="list-style-type: none"> ○ NRA certification as ML3 for vaccine production ● Speed of WHO PQ target timelines for DP and AVM products ● Uncertain & fragmented country registration pathways post WHO PQ ● Producing country NRA maintain ML3+ and rapidly approve batch releases and variations with rapid recipient country NRAs approvals 	
Market & Demand	<ul style="list-style-type: none"> ○ TT and commercialization decisions slowed pending clarity on Gavi 6.0 demand and AVMA course correction 	<ul style="list-style-type: none"> ○ Demand Shift - Gavi 6.0 policy creating demand uncertainty ● Price Viability - Increased price competition due to GAVI 6.0 policy ○ Misaligned UNICEF LTA tender and AVMA Course Correction ○ Uncertainty of market opportunity before next UNICEF LTA starts 	
Finance	<ul style="list-style-type: none"> ○ Funding disbursement delays impacting facility readiness and product commercialization ○ Funding for clinical trials and production readiness 	<ul style="list-style-type: none"> ○ Approved funding remaining undisbursed, delaying facility build and product launch ○ Mobilization of new funding for things such as clinical trial and general production readiness 	
Access to Products	<ul style="list-style-type: none"> ○ Originator pacing delays 	<ul style="list-style-type: none"> ○ TT execution delays based on originator 	
Workforce	n/a	<ul style="list-style-type: none"> ● Gaps in technical assistance and skilled workforce constrain scale-up, regulatory readiness, and operational execution 	

Affected AVMs ○ Some ● Most ● All

Domestic | AVMs with domestic-only focus, will need to clear current challenges before entering the continental market



Non-exhaustive

Challenge

Factors causing delays



Regulatory

- NRA timelines and ML3+ certification requirements remain outstanding for manufacturers
- Product registration often takes 1-2 years with ability to reduce them uncertain



Market & Demand

- Domestic demand provides some anchor, but bilateral, pooled, and export demand signals remain weak or unclear
- Products often not aligned with the current pooled procurement mechanisms' needs or prices



Finance

- Concessional financing, offtake guarantees, and upfront cost coverage are recurring requirements
- Forex constraints, tax/trade policies, and facility investment needs add to financing complexity



Access to Products

- TT progression is contingent on stronger demand certainty and commercially viable production economics
- Export pricing below domestic market levels constrains continental expansion



Workforce

- Technical assistance needs center on validation, quality assurance, and lot-release capabilities
- Originator partners offer some support but often not all that is required to fill these gaps

Affected AVMs ● Some ● Most ● All

Addressing these challenges will require action across three enabling conditions supported by stakeholder coordination



Non-exhaustive



Regulatory Approval



Market & Demand



Supply Finance & Execution

Enabling conditions

- Predictable NRA review timelines
- Clarity around accelerated WHO PQ pathways
- Efficient post-PQ regulatory pathways
- Sustained NRA readiness and ML3 capacity

- Predictable demand signals
- Clear procurement pathways, with processes aligned with commercialization timelines
- Commercially viable market conditions

- Timely access to committed financing
- Sustainable financing for product scale-up and development
- Technical and workforce readiness

Stakeholder Coordination:

- As no single actor can do this alone, coordinated stakeholder action will be essential

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