

# BVNL OVERVIEW:

## mRNA Meeting

April 17-21, 2023





*“Vaccines are the tugboats of preventive health”*  
-William Foote

- ☐ Introduction of BVNL
- ☐ BVNL Overarching Strategy
- ☐ BVNL Capacity
- ☐ mRNA Vaccine Manufacturing
- ☐ Nigeria Ecosystem
- ☐ Afrigen Training...

# Introduction to Biovaccines Nigeria Limited (BVNL)

## A Synergistic Partnership Between Private and Public Sector



(51%)

(49%)

- ✓ One of the oldest pharmaceutical companies in Nigeria.
- ✓ M&B is amongst the top pharmaceutical companies in Nigeria.

- ✓ Most populous country in Africa. 3<sup>rd</sup> largest youth population in the world.
- ✓ Nigeria's economy is the largest in Africa.
- ✓ Phased GAVI graduation begins in 2021.

Mandate for **long term procurement of vaccines** and stage-wise **indigenous manufacturing** of vaccines.



RC 633335

*Advancing Health through Innovation*

- *Established: 2005*
- *JVC: FGN & MBN*
- *SPV to revive LVM in Nigeria*
- *Board Re-inauguration: Jan 19, 2018*
- *Head Office: 445 Herbert Macaulay Way, Yaba, Lagos State*
- *Factory: Otta, Ogun State*





# BioVaccines Nigeria Ltd



## ‘Nigeria Immunization Coverage Enhancement’ – Initiative

1. Infrastructure for Capacity building for Local manufacturing of Essential vaccines

5. Forum to nurture and develop local technical talent to support the capacity building initiative

2. Infrastructure for Development of Novel vaccines critical for the region

3. Institution to support in enhancing awareness and Coverage of EPI vaccines in Nigeria

4. Support in setting up an NCL and strengthening the NRA to make it fully functional

## Support in Achieving GVAP Goals in Nigeria & the Region

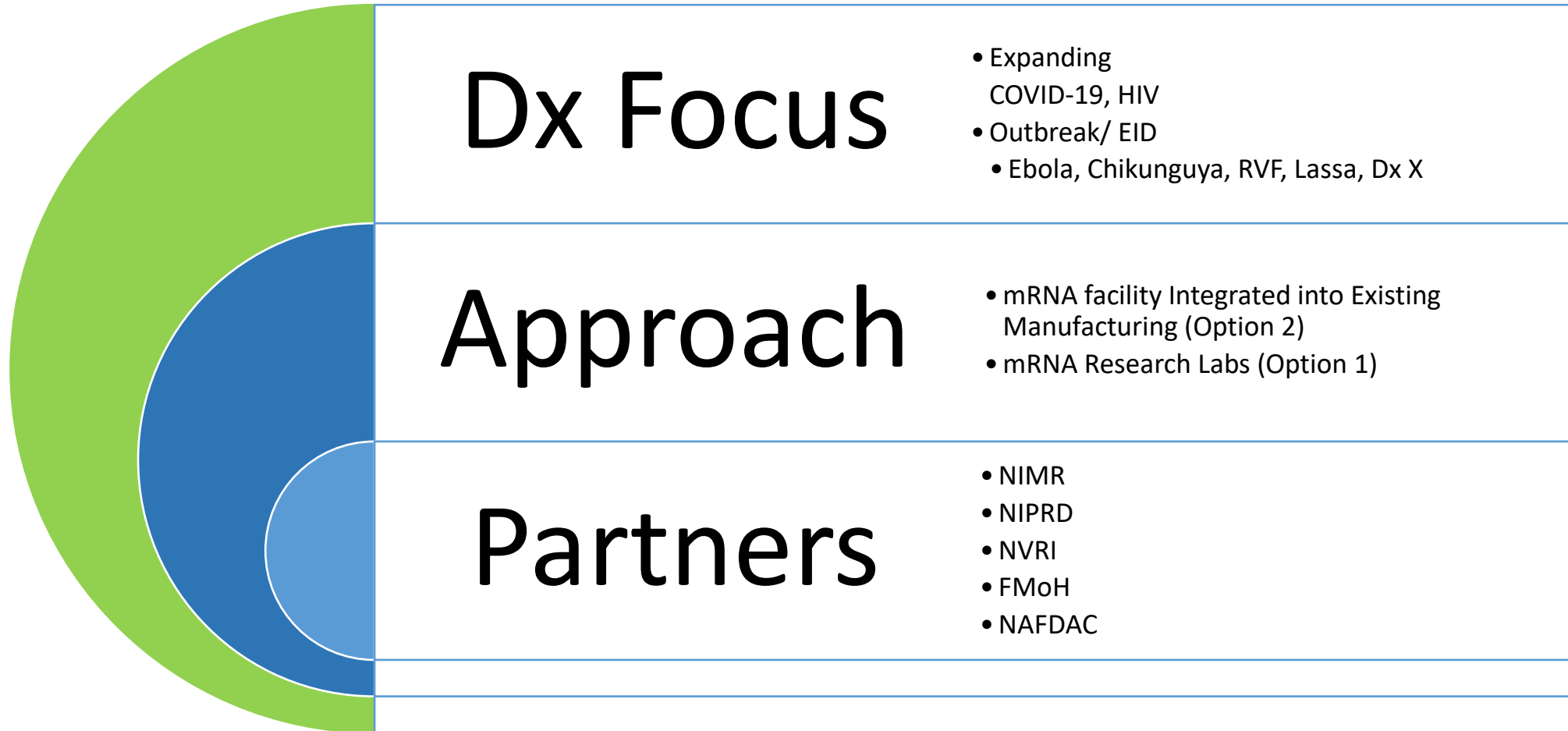
A tunnel concept based, fully integrated Vial filling line which does, Washing, drying sterilization, cooling , filling, stoppering and capping.

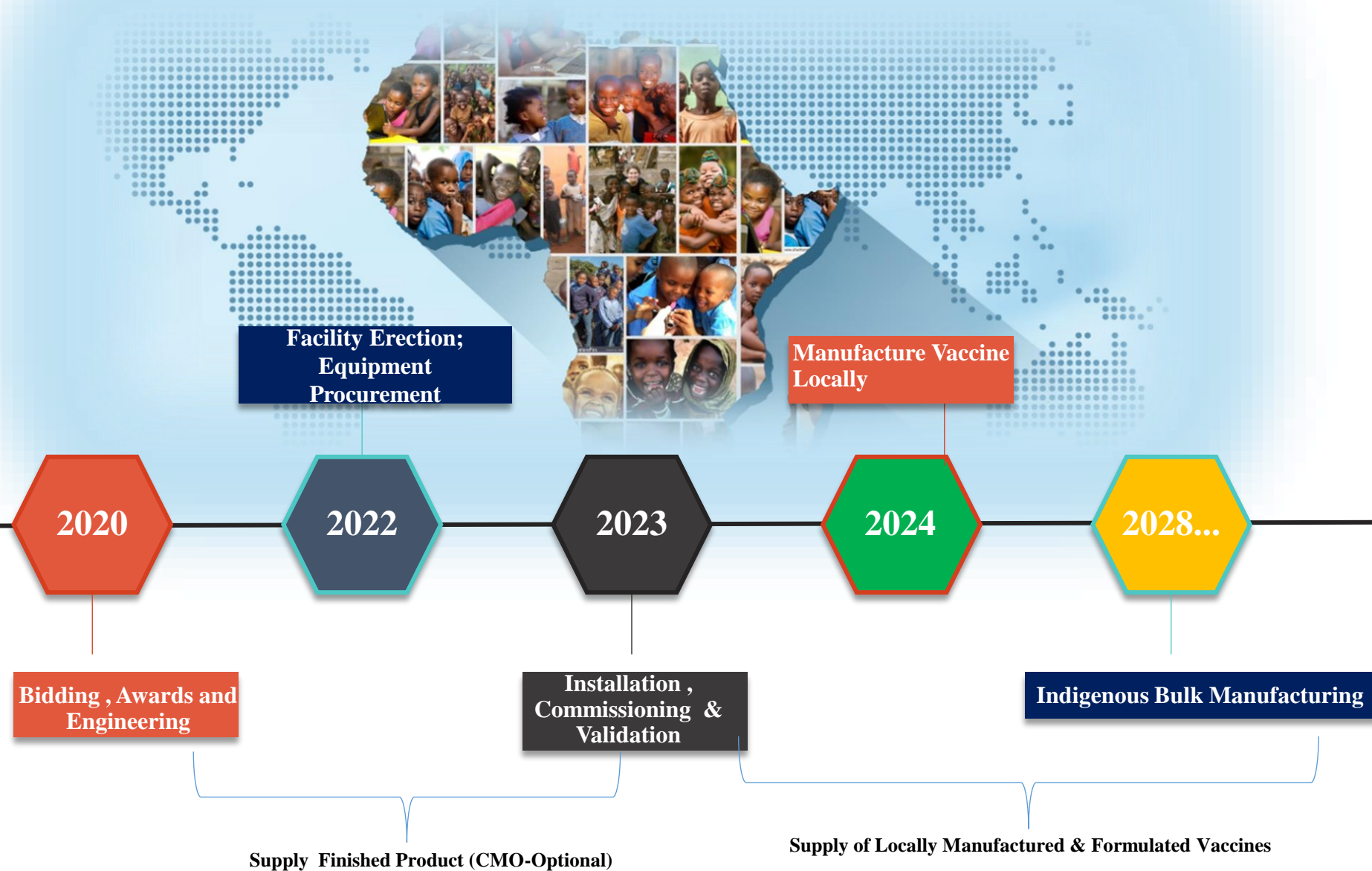


Sr. No.	Capacity Calculations	Absolute vials	Million vials	Single Dose/ vial 0.5 ml + appropriate overfill	5 Dose / vial (0.5 ml/dose) 2.5 ml + appropriate overfill	10 dose / vial (0.5 ml/dose) 5.0 ml +appropriate overfill
				No of doses (mil)	No of doses (mil)	No of doses(mil)
1	Machine Capacity vials/minute	300				
2	Machine Capacity vials/hour	18,000				
3	Machine Capacity vials/day/shift (5 hours fill time)	90,000				
a	Annual Capacity @260 days on single shift/day	2,34,00,000	23	23	117	230
b	Annual Capacity @260 days on double shifts/day	4,68,00,000	47	47	234	470
c	Annual Capacity @260 days on three shifts/day	7,02,00,000	70	70	351	700



## Intended Application of the mRNA Tech







# Nigerian Vaccine Manufacturing Ecosystem

## History of Vaccine Manufacturing :

- Animal (Bacterial & Viral) for over 75+years
- Human (Small Pox, Rabies,

## Regulatory Strengthening (NAFDAC)

- WHO Global Benchmarking; Level 3
- ISO 9004
- Ongoing of a new NAFDAC vaccine Lab
- > 45 Lot release certificates issued for Covid-19 vaccines

## Scientists: Virologist & Vaccinologists

- Usman Danfodio University (UDUS), Sokoto
- National Institute of Medical Research (NIMR)
- Nigeria Institute of Pharmaceutical Research & Development (NIPRD)
- Irrua Specialist Teaching Hospital (ISTH), Edo
- African Centre of Excellence for Genomics of Infectious Diseases (ACEGID), Osun



WHO GBT Performance Maturity Levels				
	1	2	3	4
ISO 9004	No formal approach	Reactive approach	Stable formal system approach	Continual improvement emphasized
WHO GBT	Some elements of regulatory system exist	Evolving national regulatory system that partially performs essential regulatory functions	Stable, well-functioning and integrated regulatory system	Regulatory system operating at advanced level of performance and continuous improvement
	Can be consider as functional if rely on other regulators for some specific functions		Target of WHA Resolution 67.20	Advanced/reference Regulatory Authorities

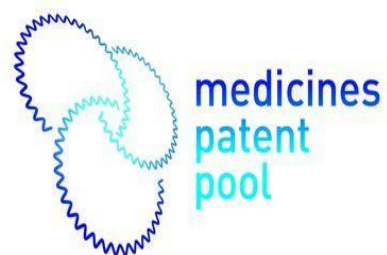


20-04-2023

# Afrigen Training

## 1. Working towards mid May 2023 *Nigeria Consortium*

### Gratitude- Initiative & thought leadership



Country	mRNA technology recipient
Argentina	Sinergium Biotech
Brazil	Bio-Manguinhos
Egypt	BioGeneric Pharma S.A.E
Kenya	tbd*
Nigeria	Biovaccines Nigeria Limited
Senegal	Institut Pasteur de Dakar
Tunisia	Institut Pasteur de Tunis
Bangladesh	Incepta Vaccine Ltd
Indonesia	Biofarma
India	BiologicalE (Bio E)
Pakistan	National Institute of Health
Serbia	Institut Torlak
South Africa	Biovac
Ukraine	Darnitsa
Viet Nam	Polyvac

# Conclusion

*“Universal health coverage is ultimately a **political choice**. It is the responsibility of every country and national government to pursue it. It takes **vision, courage and long-term thinking**”*

The above statement credited to Dr Tedros Adhanom Ghebreyesus, DG WHO, aptly applies to local vaccines manufacturing in the LMICs. It is indeed a political choice that can only be exercised by one with a deep love for his country and people.





20-04-2023

