"Investing in regional mRNA Vaccine Research & Development'

mRNA Technology Transfer Programme regional meeting in South-East Asia

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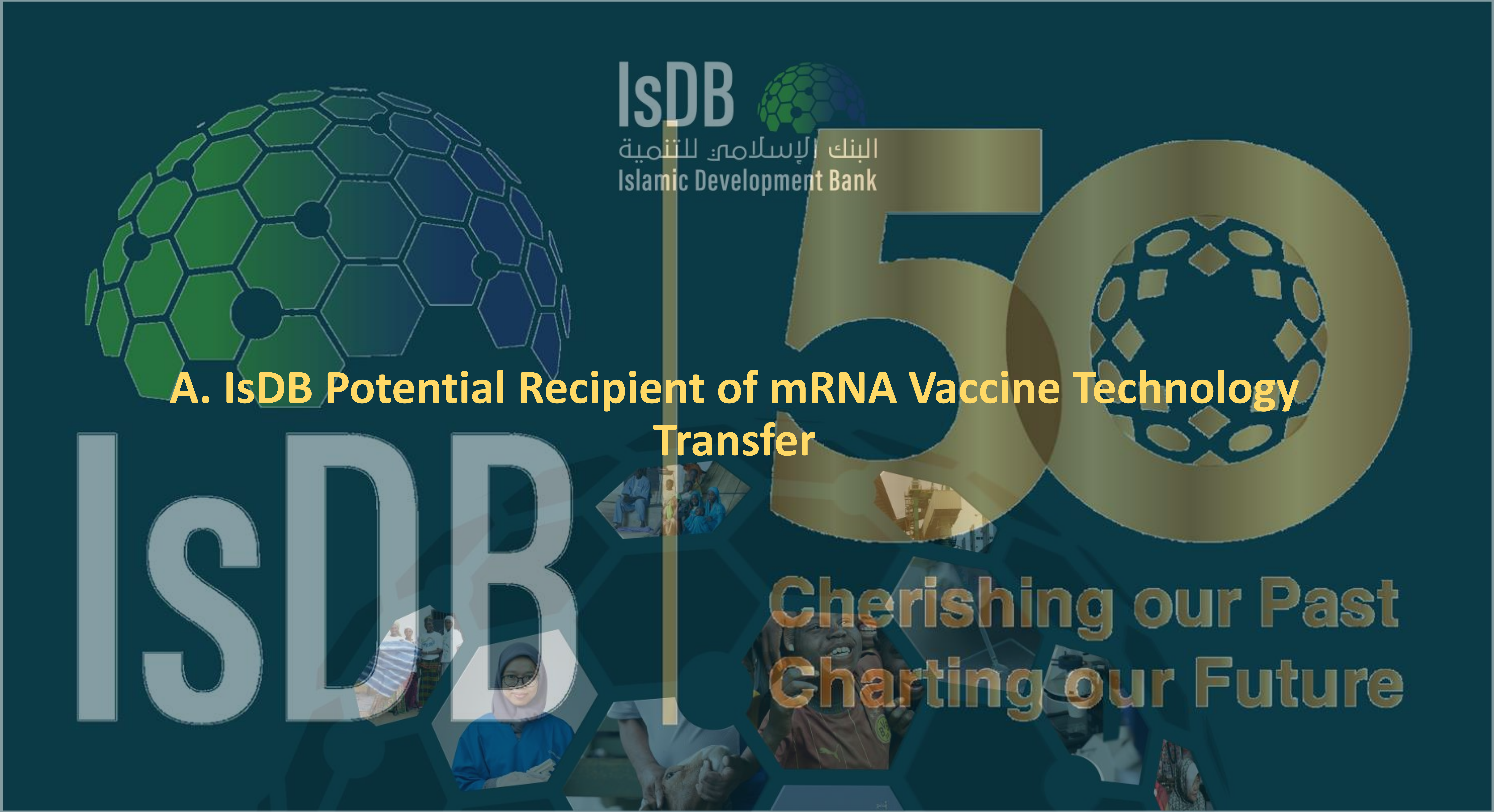
Introduction

- ❖Vaccine Development: Riskiest phase and therefore involves financing schemes that have the risk absorption capacity.
- ❖The principal financial instruments to support vaccine development are grants and venture equity investments that could be co-financed with governments, venture capital and private sector.
- ❖Opportunities to strengthen **regional vaccine supply** and introducing **new vaccine.** But, given the rapidly evolving landscape of suppliers, it must be **carefully plotted**.
- ❖IsDB and AfDB Joint Health Industrialization Strategy for Africa.
- ❖Health Impact Investment Platform

A. IsDB Potential Recipient of mRNA Vaccine Technology Transfer



Where do IsDB bigger suppliers stand within the top generic suppliers?

❖ The largest supplier in volume is Serum Institute India. The 5th largest is PT Bio Farma, Inst. Pasteur Senegal is 37th, and Incepta Bangladesh is at 46th position.

❖ The top 9 companies account for 80% of reported vaccines sales in units.

According to WHO, there are 84 vaccine suppliers globally, of which 19 are based in Europe and the USA, and 65 others in 24 countries.

NOT SHOWN:
17 suppliers are not shown in the diagram because of their significantly low production capacity compare to the big suppliers.

Green Field Possibilities

- Size of birth cohort & regional “uniqueness” criteria: count double
- Malaysia, Saudi Arabia and Türkiye attract more funding for vaccine production. Jordan and Uganda are the next strongest opportunities for green field development.

5 = strong 0 = weak

		Criteria	Turkey	Saudi Arabia	Malaysia	Jordan	Uganda	Iran	Pakistan	Kazakhstan	Egypt	Morocco	Tunisia	Sudan
Strength	Strengths are internal, positive attributes, things that are within control of management	Government commitment	4	5	4	3	3	3	3	4	2	4	3	2
		Existing vaccines & Rx business	2	2	2	2	1	2	1	1	1 (Vacsera)	1 (Pasteur)	1 (Pasteur)	0
		Size of local birth cohort	3	1	1	1	4	3	5	1	4	1	1	3
		Access to HR	3	2	3	4	2	3	3	2	2	2	2	1
		Scientific Academy	3	3	3	3	2	3	2	2	3	2	2	1
Weakness	Negative factors that detract from strengths, things that management may need to improve	Erratic electrical supply	4	5	4	3	2	3	2	4	3	2	2	2
		Transportation links	4	5	4	4	1	3	3	2	2	2	2	1
		Air cargo	5	5	5	3	3	3	3	3	3	2	2	1
Opportunity	External factors in the business environment that are likely to contribute to success.	Regional "uniqueness" of lcoation	3	2	3	2	4	2	2	2	2	2	2	3
		Supporting industries	3	2	2	4	2	3	2	2	1	2	1	1
		Strong local Tech sector	3	3	4	3	2	3	2	2	2	2	1	1
Threats	External factors over which there is no control, which may require contingency plans	Lack of regional competition, low score if other suppliers nearbye	2	3	2	3	5	3	2	2	3	4	4	3
		Political stability	3	4	4	4	3	2	2	3	1	3	2	1
Overall Score			**42**	**42**	**41**	**39**	**34**	**36**	**32**	**30**	**29**	**29**	**25**	**20**

B. IsDB Business Models for mRNA Vaccine Technoclogy Transfer

IsDB
البنك الإسلامي للتنمية
Islamic Development Bank

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Cherishing our Past
Charting our Future

IsDG Group Vaccine Access Facility Strategic Business Structural Model

Main pillars	Key actions	Targets	Financing	SPRP
Vaccine Development	Technology Transfer and/or Innovation	Biotechnology Firms, Big Firms, Startups	Grant & Equity (RL, STI)	R3
Vaccine Manufacturing	Establishing "Fill & Finish" and Formulation units	Indonesia, KSA, Morocco, Nigeria, Malaysia, Senegal, Turkey	Conventional Financing & Alternative Development Financing	R3
Vaccine Procurement	Strategic Demand Forecast, Advance Market Procurement,	LDMICs	Conventional Financing, & Alternative Development Financing	R2
Vaccine Delivery	Supply Chain Management Demand generation Safety Surveillance	LDMICs and Non-LDMICs	Conventional Financing & Alternative Development Financing	R1

Technology Deployment Cooperation Programme (1)

Overview: Challenges and Opportunities in Tech Deployment

- High Risk of Adopting Technology to Local Needs
- Ensuring Value For Money
- High Cost, Limited Access to Financing to Deploy Technology
- Build on Success of Reverse Linkage

Description of the Program

1. **Use of IsDB financing** for tech transfer cooperation programmes
2. **Technology provider** partners required to “buy down” financing of the project as a turnkey provider
3. **IsDB MCs** including LDCs receive concessional financing
4. **IsDB** will provide support to match the technology with a Member Country recipient

Technology Deployment Cooperation Programme (2)

Programme Implementation Procedure

- **01** Identification of the MC Technology Needs- Technical Specifications developed in the form of Request for Bid (RFB)
- **02** Closed Bidding: All Technology Provider Partners (TPP) may Respond to the RFB
- **03** VFM evaluation done by Specialized Technical Firm/ UN Agency. Concept Note developed as a pipeline in IsDB Work program. Conditional agreement signed with TPP.
- **04** Once selected, the Project is Appraised and approved according to IsDB procedures. TPP firm included as single-source.
- **05** Conditional agreement triggered when financing agreements are signed and effective. Financing agreements will be signed with MC.

Value Addition (Triple-Win)

MC	(1) Beneficiary of competitive financing from IsDB (especially during high inflation and recession). (2) Strengthen key development sectors of medical, health, education, agriculture, infrastructure, etc (3) Gain access to right-sized and competitive technologies (4) Economic benefit from Technology Deployment
TPP	(1) Create very positive goodwill with the beneficiary country involved. (2) New revenue stream and expansion of markets. (3) Reallocate marketing and branding budgets to MC discounts to be more competitive (4) Mitigate business development risk – access to reliable decision-makers and private sector partners.
IsDB	(1) IsDB financing become more competitive to MCs (Reduced cost of financing to MCs). (2) Improve the quality of projects proposed by MCs. (3) Better portfolio quality through a turnkey arrangement (4) More projects can be funded

Conclusion

- SWOT analysis has assisted in identification of Vaccine Production chain opportunities : both Biofarma and Institut Pasteur Dakar have huge opportunities.
- Many manufacturers are overshadowed by neighboring countries competition and further potential of the supplier need to be assessed at project development stage.
- Further assessment of the “green field sites” will be continued to evaluate throughout the second phase.

Thank You