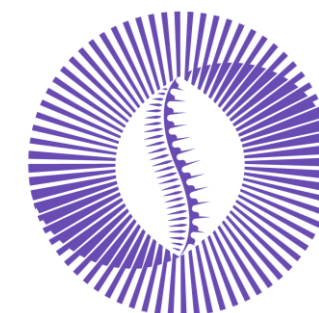


# How to Transform the Cross-Border Payment Space in Africa through Innovation

An Opportunity for  
Cross Border Trade



**PAPSS**

Pan-African Payment  
and Settlement System

“There is a tide in the affairs of men,  
Which taken at the flood, leads on to  
fortune. Omitted, all the voyage of their  
life is bound in shallows and in miseries.  
On such a full sea are we now afloat. And  
we must take the current when it serves,  
or lose our ventures.”

**Julius Caesar by William Shakespeare.**

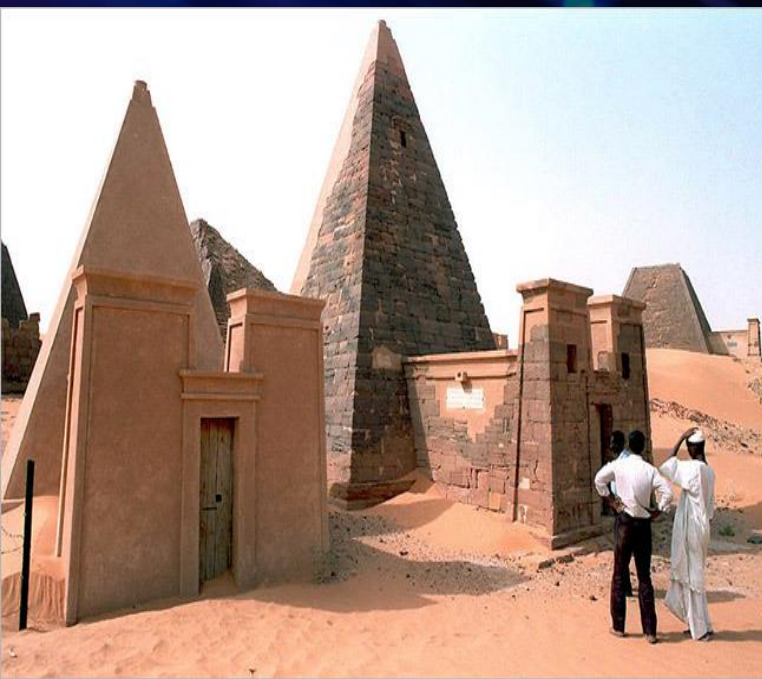


# A Brief look at African Trade

## East Africa

Trading Empire  
(1000BC – 150  
AD)

Kush/Nubian  
Gold, Iron,  
Ivory, ebony



## West Africa

Trading Empire  
(1450BC – 150  
AD)

Songhai/Mali  
Gold, Iron, Ivory,  
Kola nuts



## Southern Africa

Trading Empire  
(1200BC – 1450 AD)

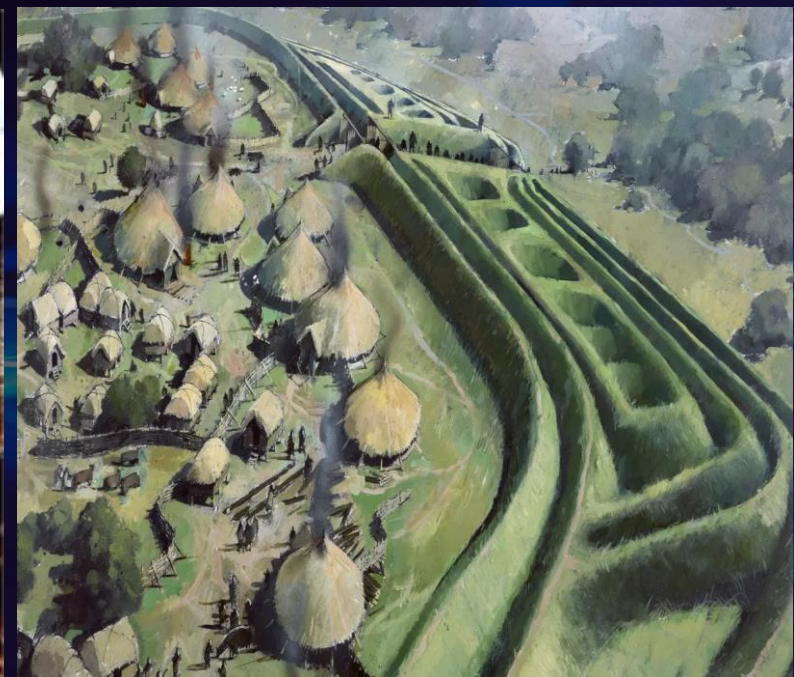
Great Zimbabwe  
Gold, Iron, Ivory



## United Kingdom

Old Oswestry Hill Fort  
(1200BC – 600BC)

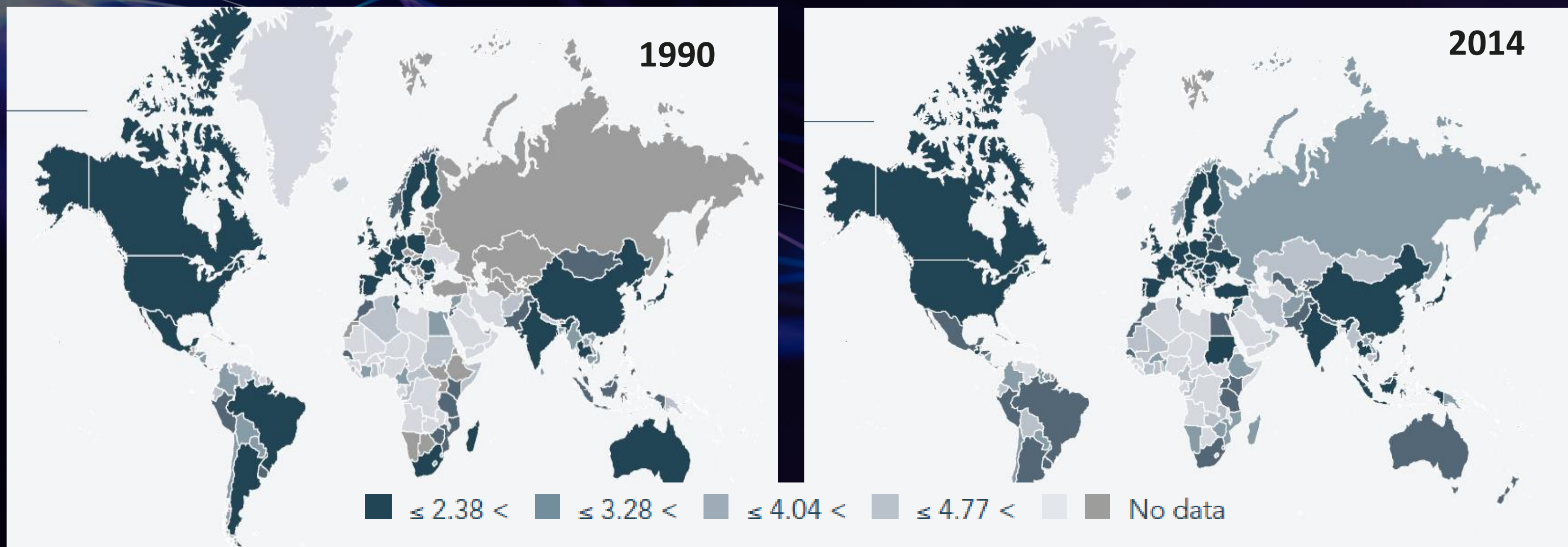
North West  
Shropshire





# AfCFTA: Implications and opportunity

- An opportunity to deepen Economic integration
- Drive Structural Transformation
- Opportunity to drive export diversification

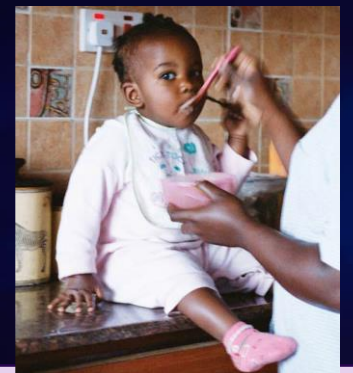


Document Classification: **Unclassified** Note: Lower numbers (darker colors) indicate more diversified exports.

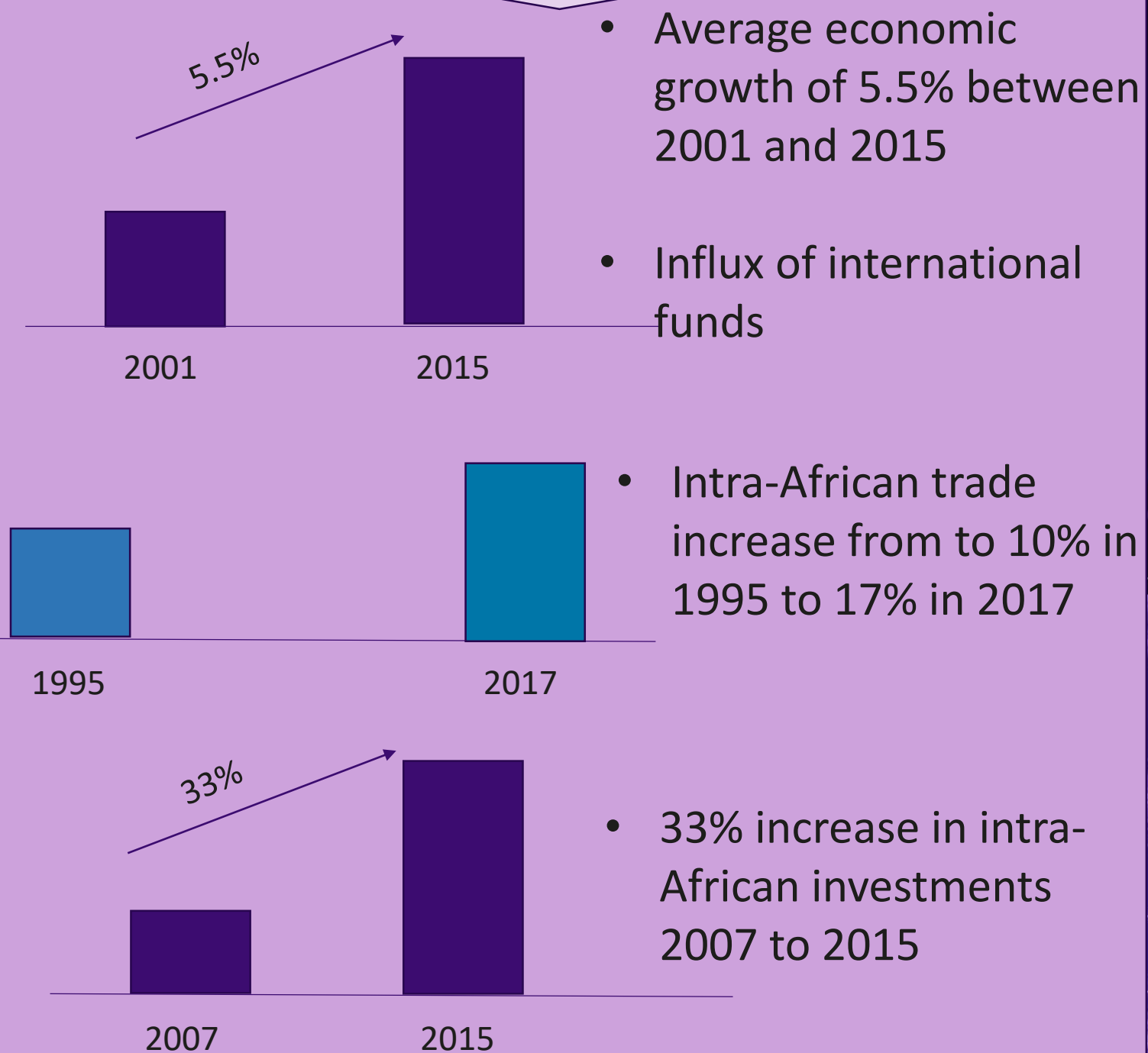
Source: IMF data and author's calculation

Document Classification: **Unclassified**

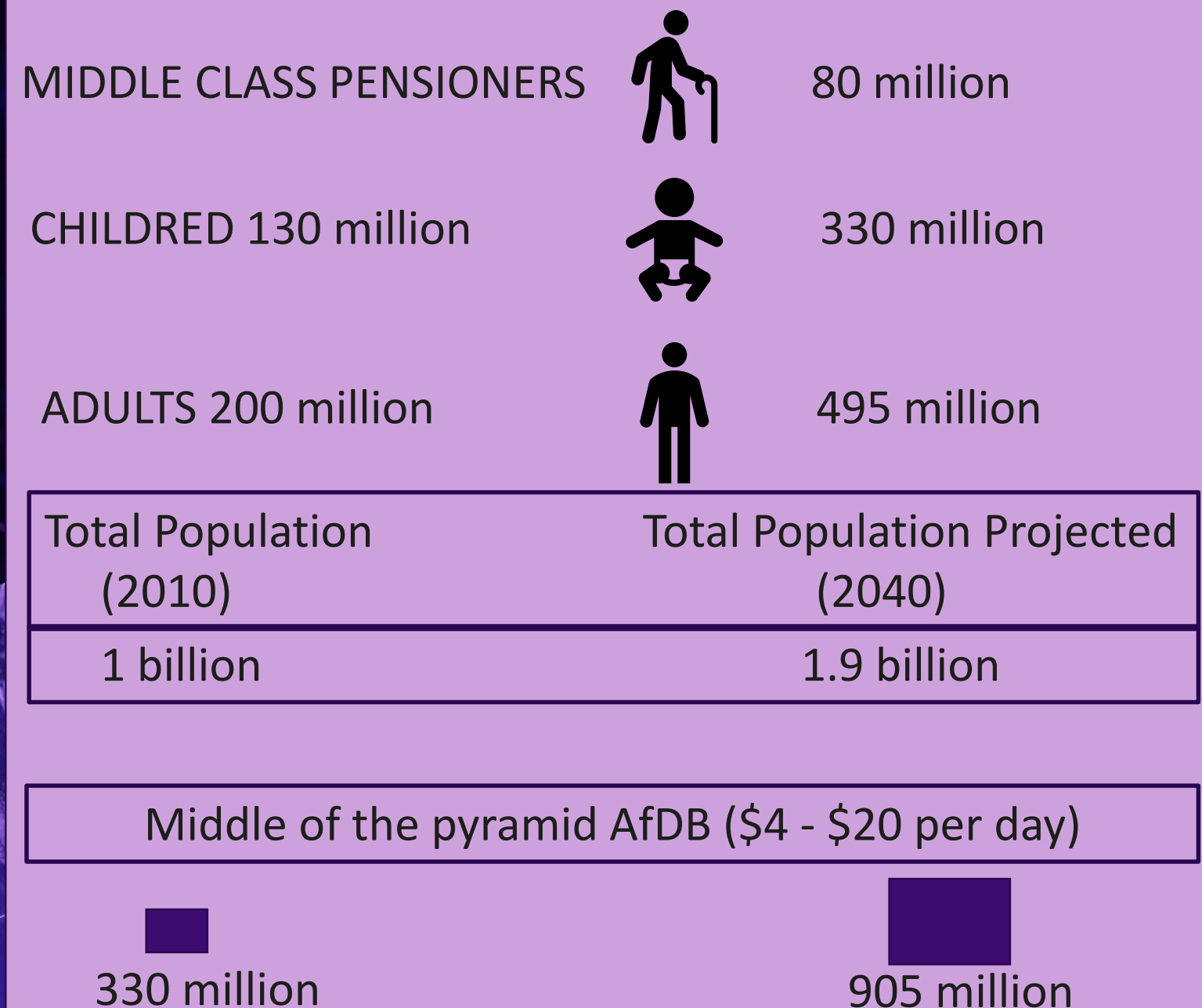
# A glimpse at Africa's Future



## Past – 2001 to 2015



## Future – 2020 - 2040





# Key Challenges we must overcome...

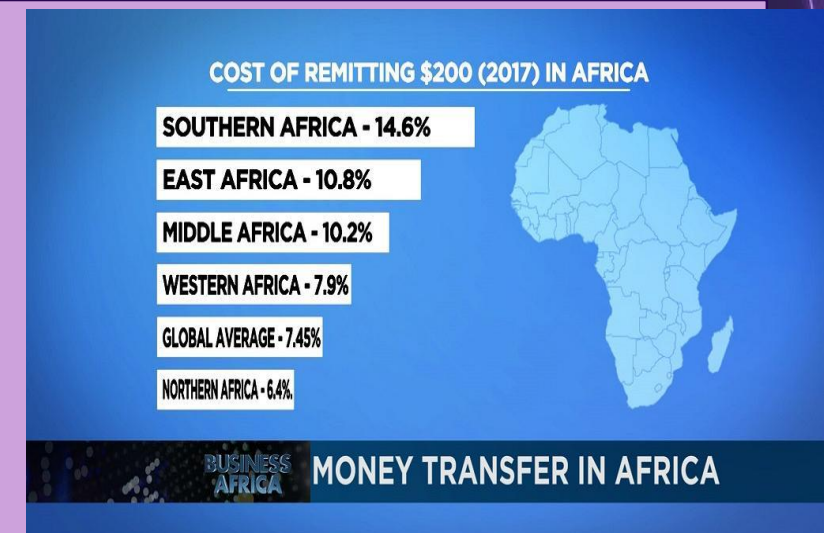
## Non-Tariff Barriers

- Poor infrastructure – road, rail, air
- Poor trade and customs logistics
- Poor Business environment



## Reducing Transaction Cost - Cross Border Payments

- 48% settlement process outside Africa
- 39% of Africa's flow goes to US
- US only accounts for 9% of flows

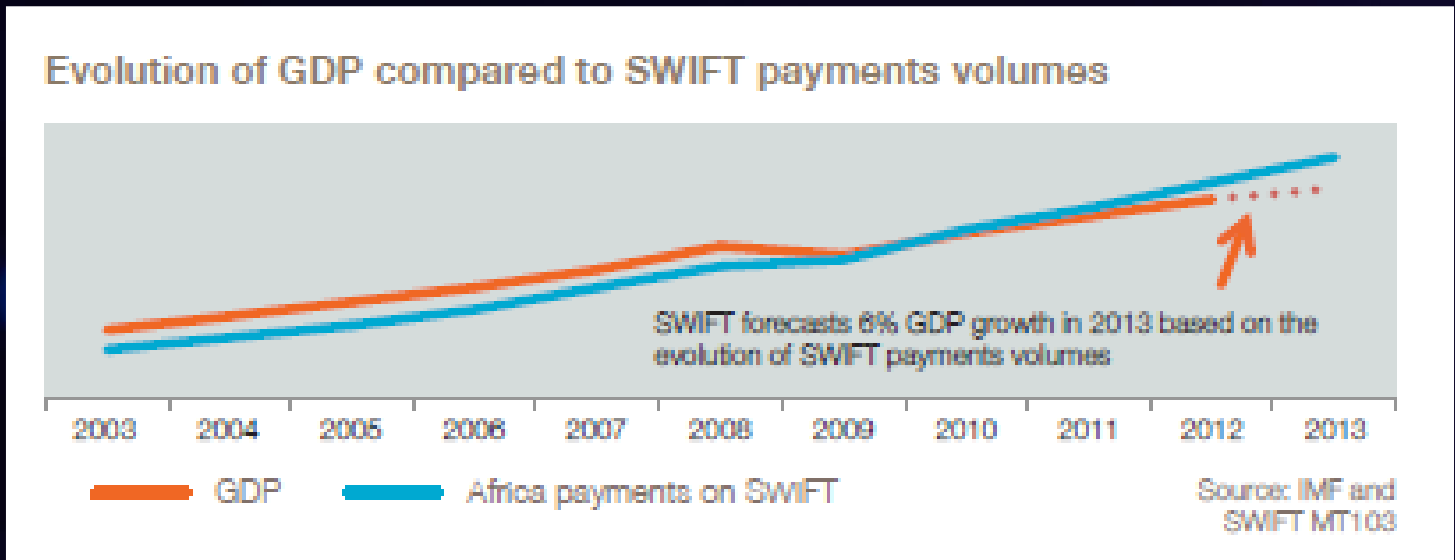
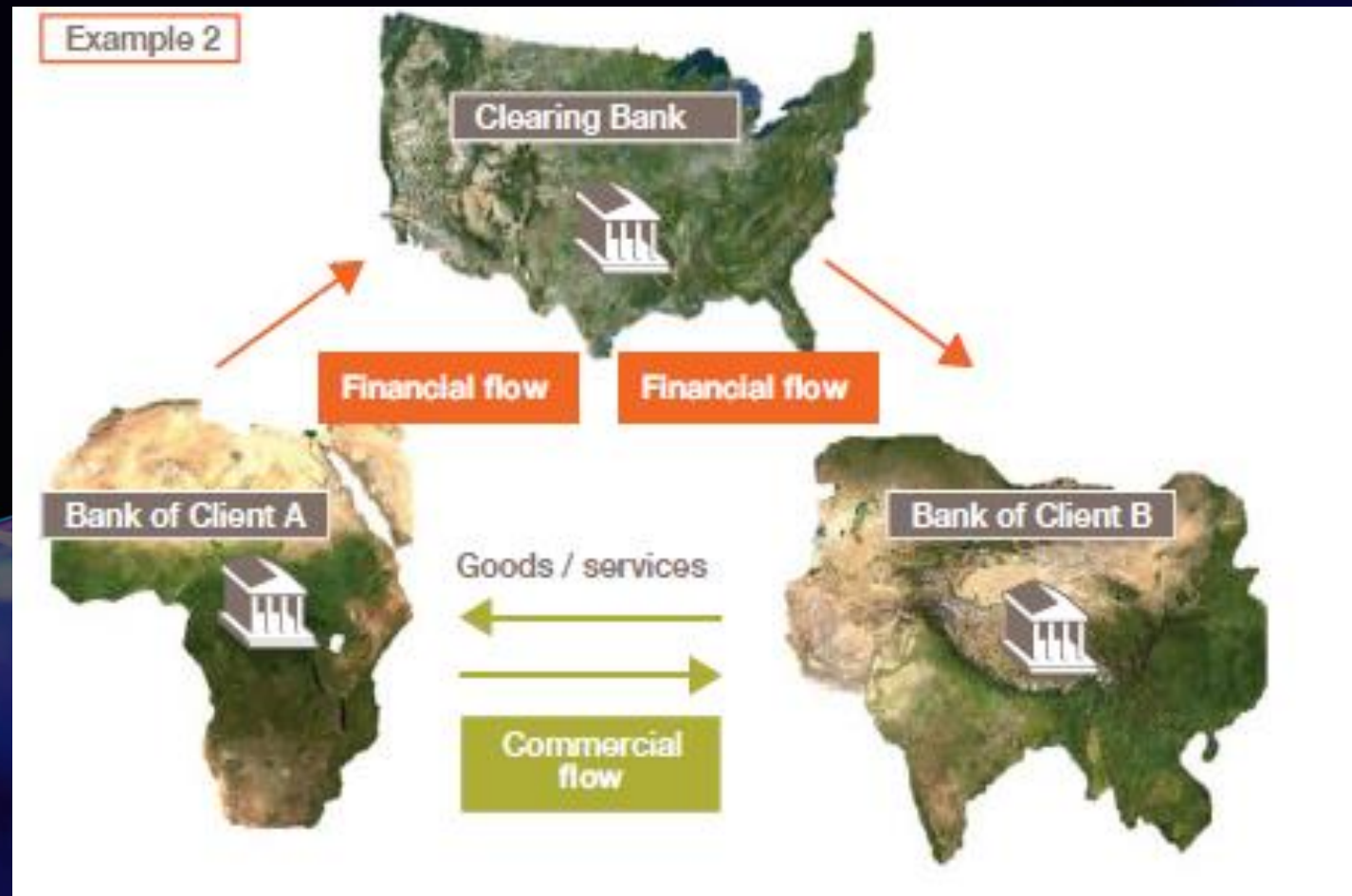


## Reducing High Energy Cost

- 78% of firms in Africa had power outages
- 41% identify electricity as a constraint
- African firm experience 50hrs/month (25 days per year)

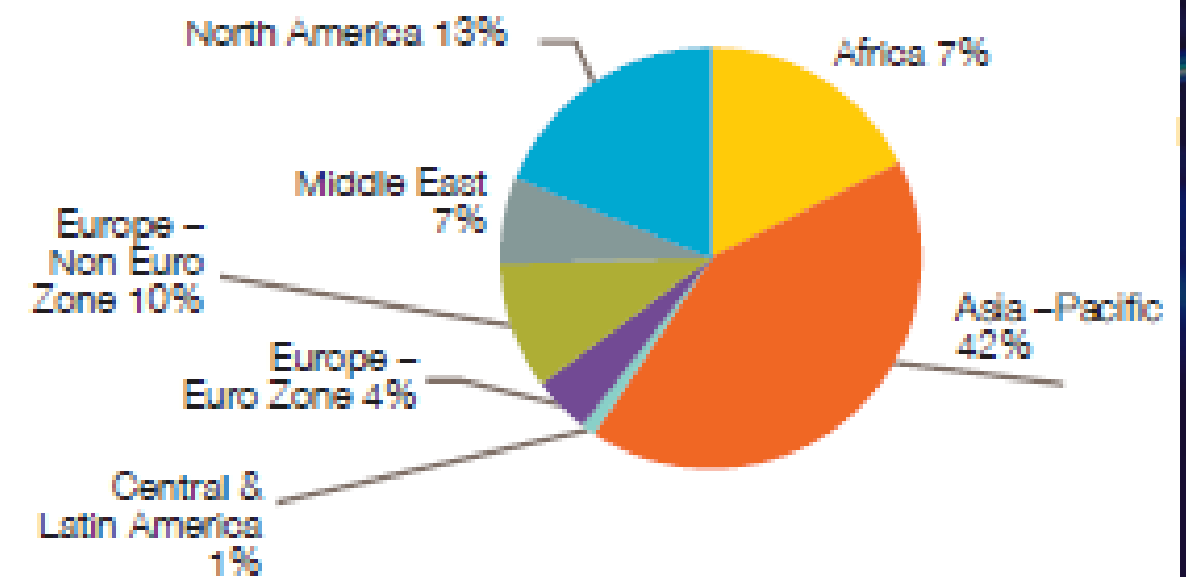


# Current State: Intra-African Cross Border payments..



- Increased cost
- High liquidity for intra-African trade transactions (US\$)
- Transaction time is also duration and variability is high

End destination of USD denominated commercial payments received by banks in the United States



Source: SWIFT (number of cross-border MT103 sent from Africa to USA in USD)

# PAPSS Objective



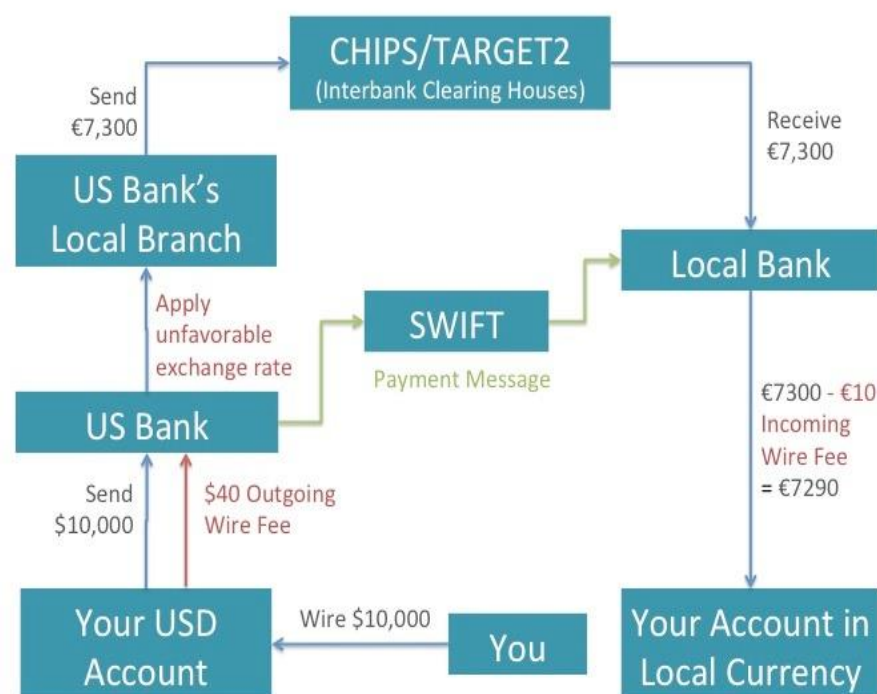
# Why Pan-African Payment and Settlement System..



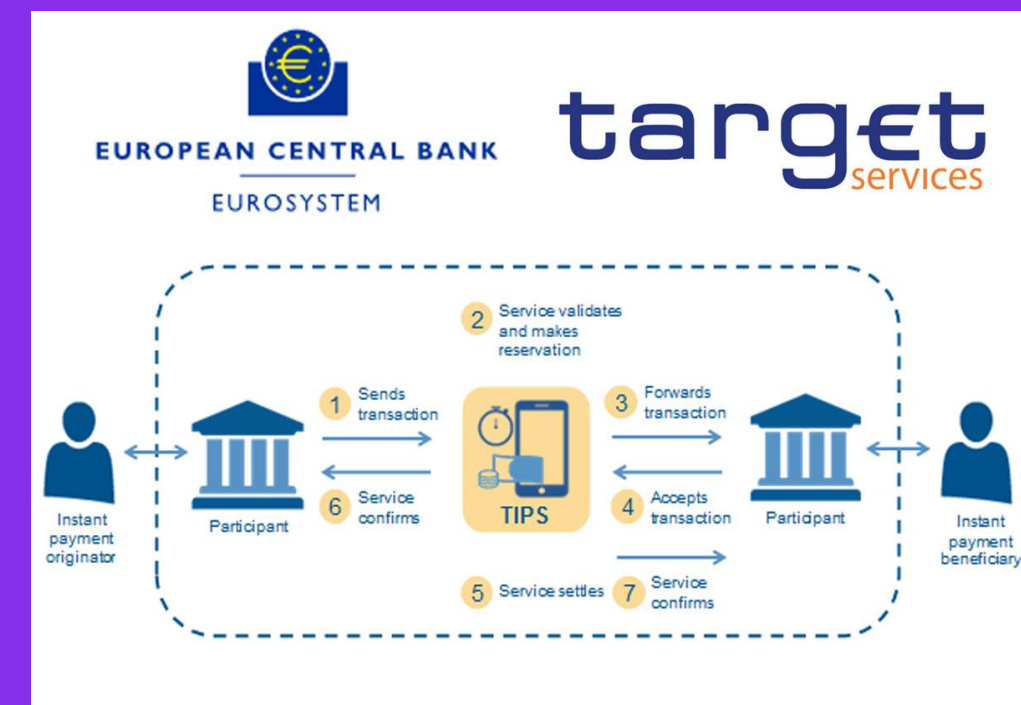
Promote Intra-African Trade through enabling a continental platform that formalizes some of the unrecorded informal cross-border trade



The rise of ecommerce



Alternative to high-cost and lengthy correspondent banking relationships

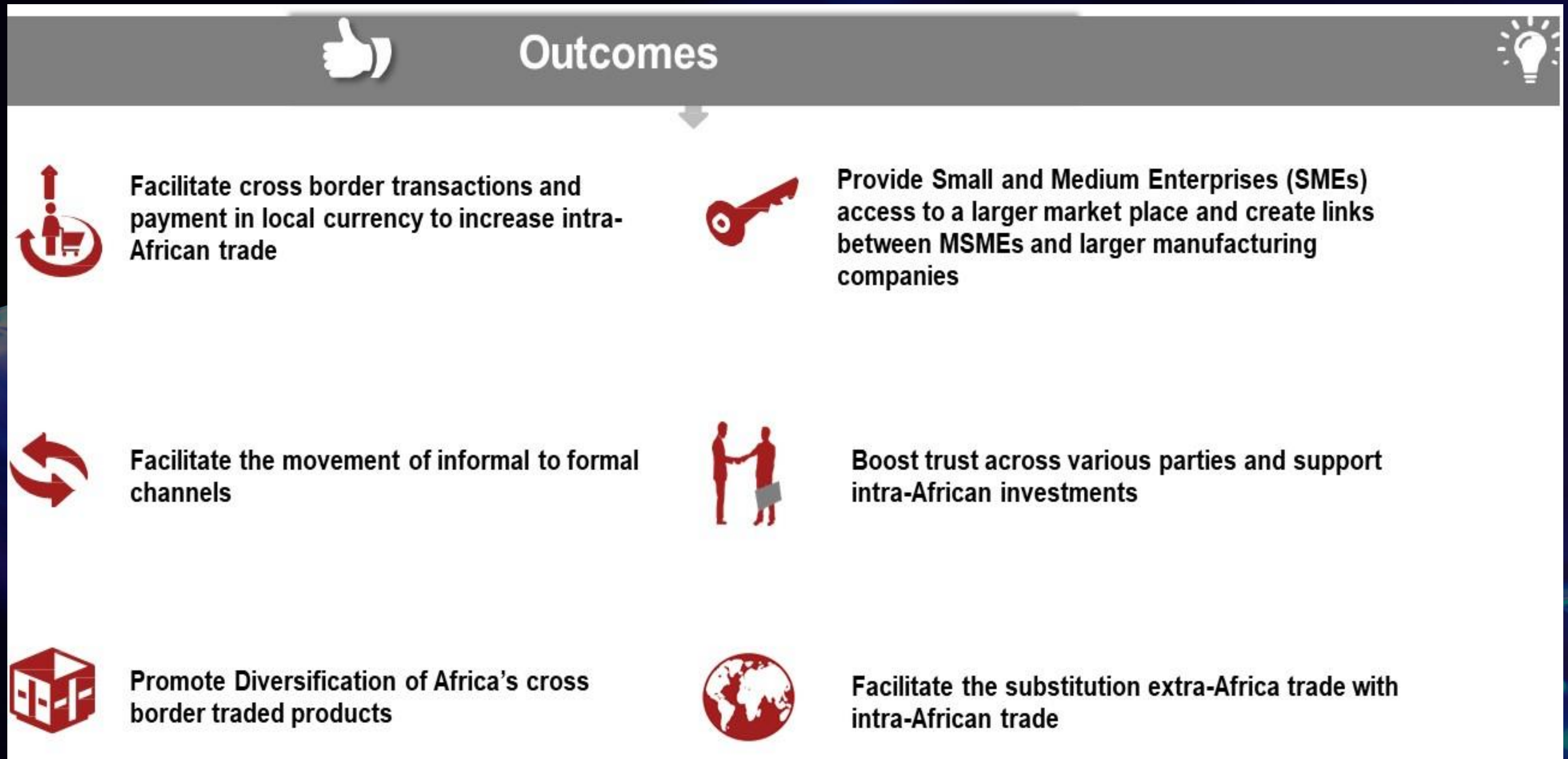


The rise of instant payment

# PAPSS Overview



# PAPSS will therefore...



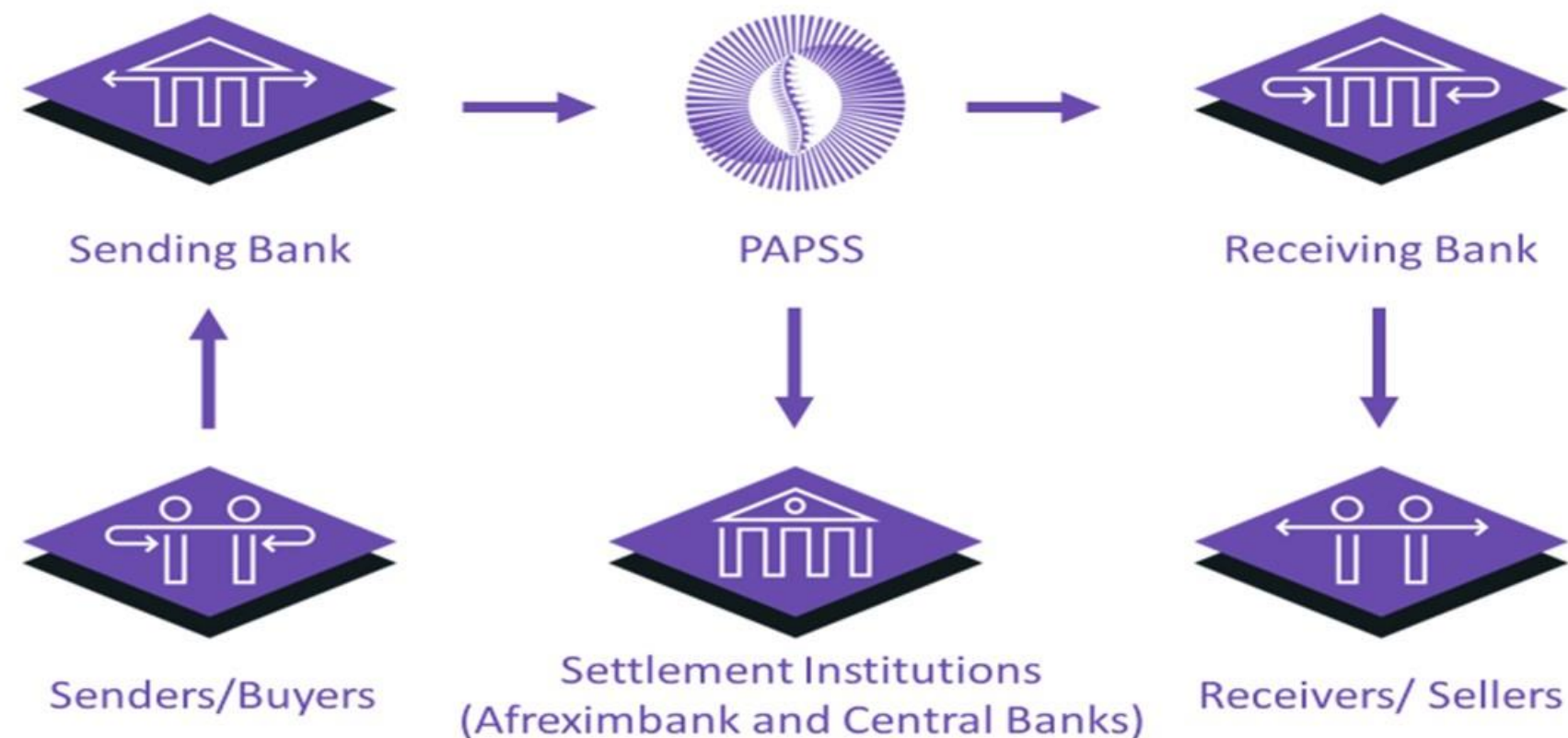
Afreximbank and its stakeholders (African central banks and commercial banks, Regional Economic/ Monetary Institutions, AU, etc.) seek to integrate Africa's financial market and provide access to a larger market at low cost through cross-border payment clearing and settlement platform, spurring intra-African trade.

# PAPSS System – Technology update



# Africa's Central Switch - PAPSS

- ❑ PAPSS will act as a clearing switch for its participants via a centralized shared platform for cross-border payment services



Regional Settlement

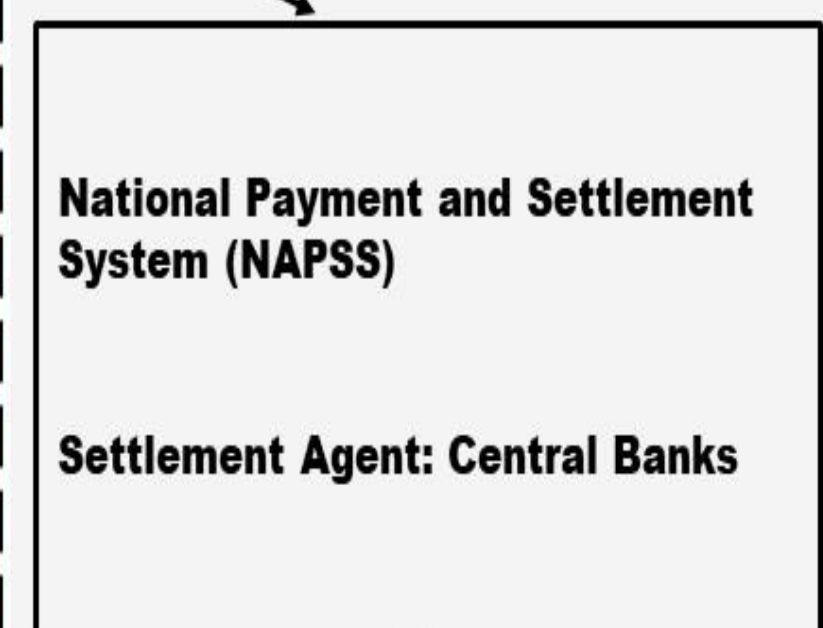
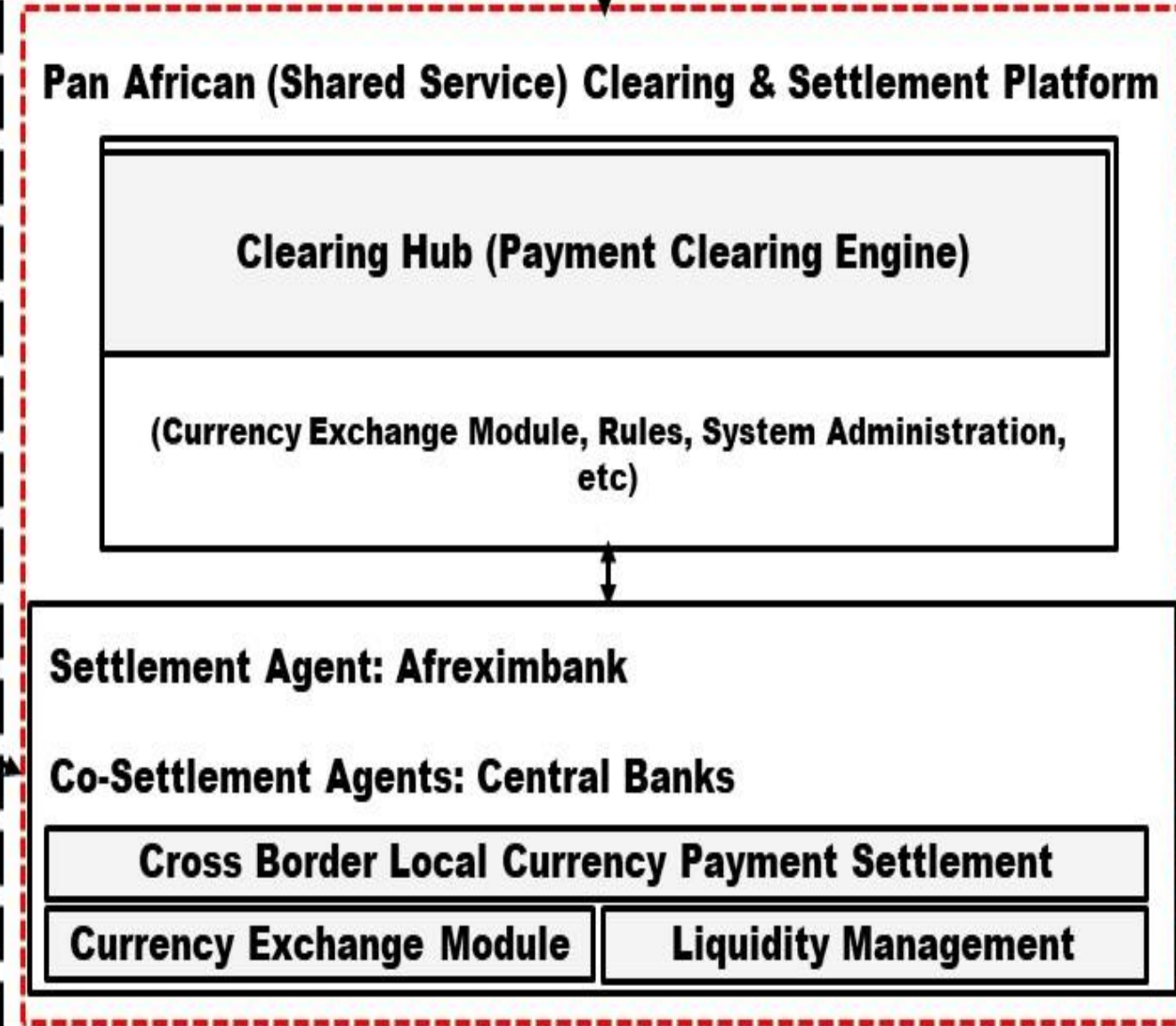
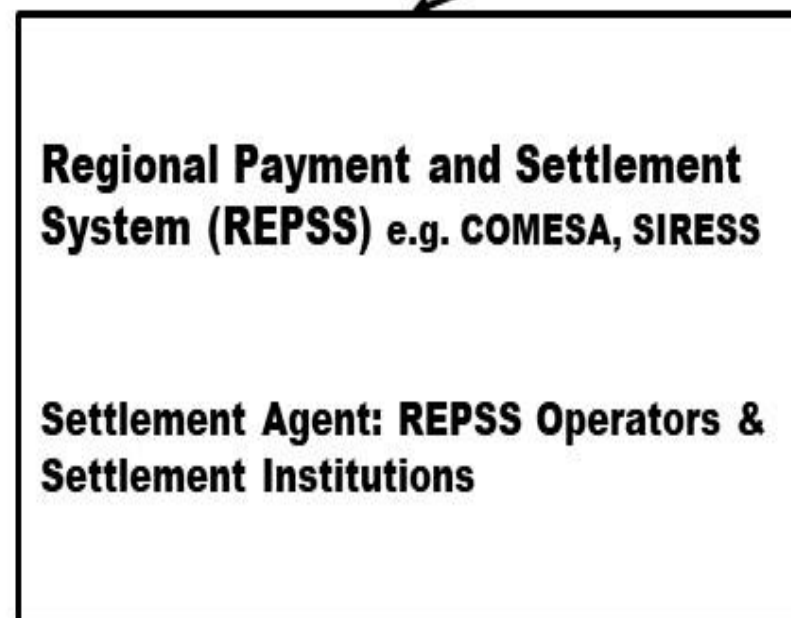
Pan African Settlement

National Settlement



Local Payment

Local Payment



Net Settlement

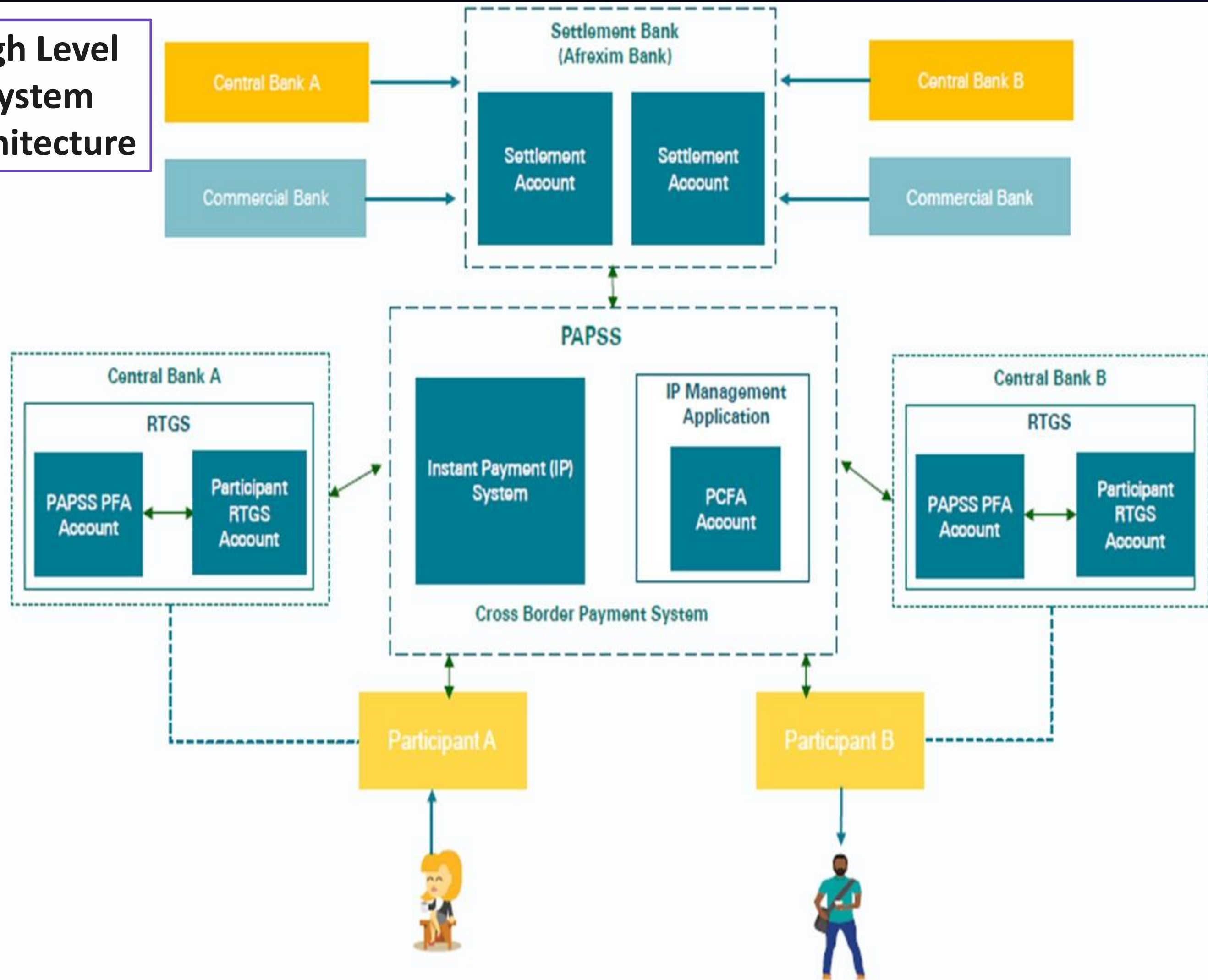
Net Settlement

Proposed Initial Settlement Currency: USD

Proposed Initial Settlement Currency: USD



# High Level System Architecture



# Participants

## Participants

### Direct Participants



Central banks



Commercial banks

### Indirect Participants



Other Financial Services Institutions

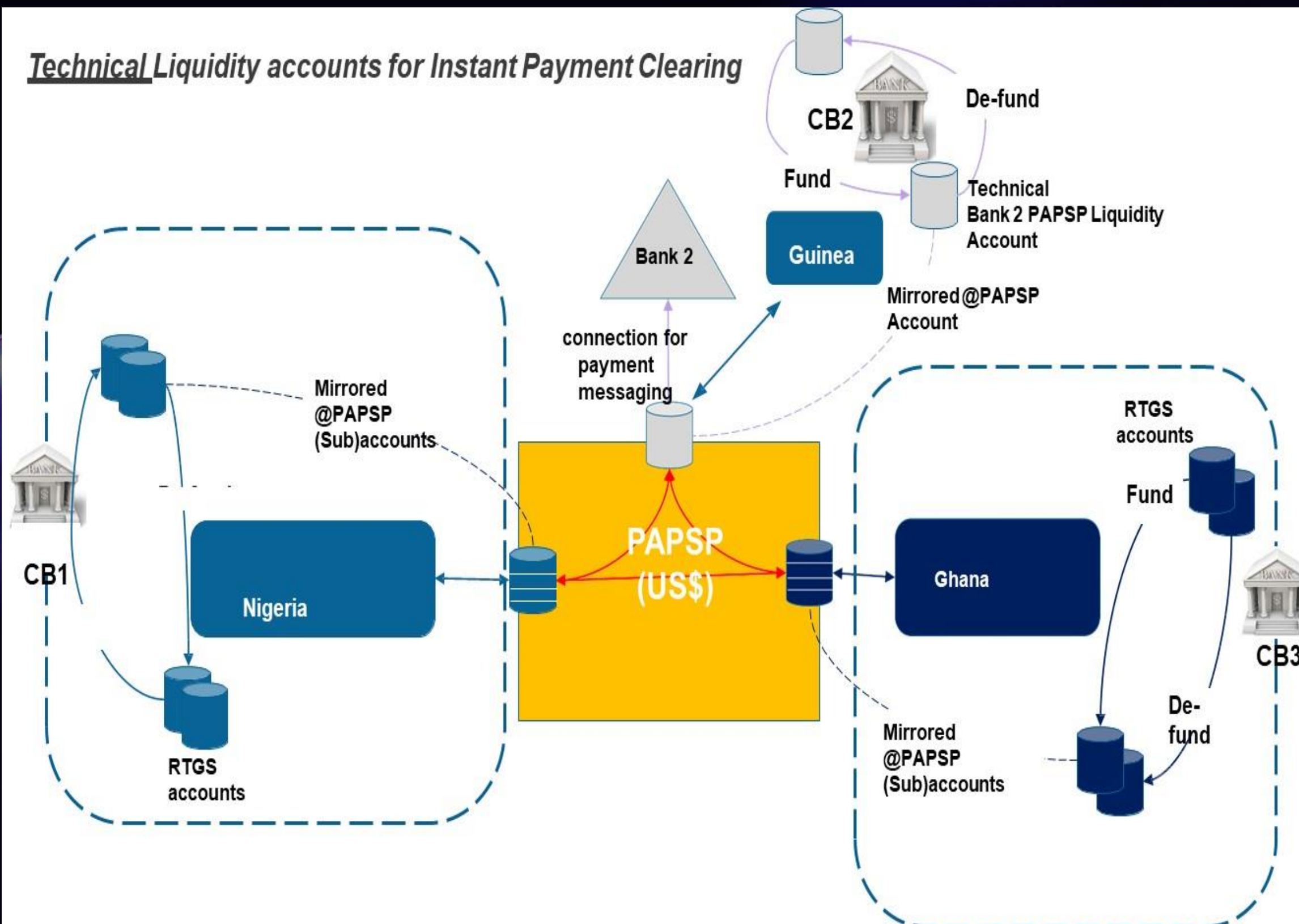


Telcos/ MMO

- ❑ The participation to the new system will be on voluntary basis.
- ❑ No restrictions to any AU member State as long as it is an Afreximbank member State.
- ❑ Only regulated entities (under the supervision of CB) in each country may be allowed as direct participants to use the system.
- ❑ Qualifying prerequisites shall be considered.
- ❑ Membership agreement would need to be executed and would include: membership criteria, working rules of the system, technical provisions and specifications, settlement accounts opening, provision of collateral, dispute settlement mechanism, etc.



# Clearing and Settlement



## Payment

- ☐ Local Currency for payments/transfer
- ☐ Sender pay with local currency
- ☐ Beneficiaries receives local currency

## Settlement

- ☐ Multi-currency
- ☐ USD
- ☐ Central Banks support and cooperation required
- ☐ Banks to manage foreign exchange

# PAPSS Screenshot of the System



# PAPSS Login Window



The screenshot shows the PAPSS Login window. In the top left corner is the APREXIMBANK logo, and in the top right corner is the text "PAPSS Login". Below the logo, there are two input fields: "User" with the text "AbimbolaB" and "Password" with masked characters ".....". To the right of the password field is a "Login" button with a right-pointing arrow icon. At the bottom of the window, there is a disclaimer text: "The use of this system is restricted to the conduct of authorized users only. All information and communication on this system is subject for reviewing, monitoring and recording at any time, without notice or permission. By continuing to use this system, you indicate the awareness and consent to these terms and conditions to use."

APREXIMBANK

PAPSS Login

User AbimbolaB

Password .....

Login

The use of this system is restricted to the conduct of authorized users only. All information and communication on this system is subject for reviewing, monitoring and recording at any time, without notice or permission. By continuing to use this system, you indicate the awareness and consent to these terms and conditions to use.



ROUTING

TRAN

TRNL STD02



List

Date: 20190617 14:21:53.888



Please review the information before submitting

Basic

Messages

SESSION

CAM

MAINTENANCE

ROUTING

Control

Manage External Services

Manage Exception Messages

Tran

List

Messages

Interface Messages

DashboardRtp

CLEARING

MONITORING

BILLING

REPORTING

< Result 17 of 95 >

### RTP Transaction

Request Type	Payment	Status	Complete
Message Type	Credit	Reported Status	ACCP
Transaction Type	Credit	Business Date	20190527
Input sequence	201905270000038101	Value Date	20190528
Tran sequence	201905270000037401	Origination Time	2019-05-28 13:40:29.0
Transaction Reference	20190528NG100800109109	Receive Time	2019-05-28 13:40:30.836088
Amount	349,999.99	Forward Time	2019-05-28 13:40:30.870443
Currency	NGN	Reply Receive Time	2019-05-28 13:40:31.548209
Receiver Amount	5,250.00	Process Completion Time	2019-05-28 13:40:31.701783
Receiver Currency	GHS		

### RTP Transaction Parties

Sender	Fidelity Bank	Receiver	Ecobank Ghana Limited
Debtor	Fidelity Bank	Creditor	Ecobank Ghana Limited
Debtor Name	Debtor Name	Creditor Name	Creditor Name

### Accounting

Debit			Credit		
Account	Amount	Currency	Amount	Currency	Account
Fidelity Bank FIBINGLA NG1008-NG-NGN-CA-DEF CA	349,999.99	NGN	Central Bank of Nigeria CBNINGLA NG1001-NG-NGN-SSA_1-DEF SSA_1	349,999.99	NGN
Central Bank of Nigeria CBNINGLA	999.99	USD	Bank of Ghana BAGHGHAC	999.99	USD

PAPSS  
Accounting  
screen



- SESSION
- CAM
- MAINTENANCE
- ROUTING
- CLEARING
- MONITORING
- BILLING
- REPORTING

Last login on 20190614 15:09:05.946 from 10.22.2.70

#### GH-GHS - 20190531

EVENT	BUSINESS DATE	DATE	TIME	MANUAL	STATUS
Settlement Window Start	20190531	20190531	10:57	Yes	EXECUTED
Settlement Window Stop	20190531	20190617	00:00	Yes	PRIOR

#### Waiting Approve

ENTITY	COUNTER
User Profile	5
User	5
Settlement Cycle	1

#### GM-GMD - 20190531

EVENT	BUSINESS DATE	DATE	TIME	MANUAL	STATUS
Settlement Window Start	20190531	20190531	10:57	Yes	EXECUTED
Settlement Window Stop	20190531	20190617	00:00	Yes	PRIOR

#### GN-GNF - 20190531

EVENT	BUSINESS DATE	DATE	TIME	MANUAL	STATUS
Settlement Window Start	20190531	20190531	10:57	Yes	EXECUTED
Settlement Window Stop	20190531	20190617	00:00	Yes	PRIOR

#### LR-LRD - 20190531

EVENT	BUSINESS DATE	DATE	TIME	MANUAL	STATUS
Settlement Window Start	20190531	20190531	10:57	Yes	EXECUTED
Settlement Window Stop	20190531	20190617	00:00	Yes	PRIOR

#### NG-NGN - 20190531

EVENT	BUSINESS DATE	DATE	TIME	MANUAL	STATUS
Settlement Window Start	20190531	20190531	10:57	Yes	EXECUTED
Settlement Window Stop	20190531	20190617	00:00	Yes	PRIOR

#### SL-SLL - 20190531

EVENT	BUSINESS DATE	DATE	TIME	MANUAL	STATUS
Settlement Window Start	20190531	20190531	10:57	Yes	EXECUTED
Settlement Window Stop	20190531	20190617	00:00	Yes	PRIOR

#### DEFAULT - 20190531

EVENT	BUSINESS DATE	DATE	TIME	MANUAL	STATUS
Daily Roll Over	20190531	20190531	10:57	Yes	EXECUTED

PAPSS End of  
Day  
Reconciliation  
Window



MAINTENANCE

FX RATES

FXRTL BT003

List



Create



Approve

Date: 20190617 14:23:11.398



Result 1 of 25

FX Rate

Status	Active
FX Rate *	SSA_1-DEF-NGN-USD
Account Number *	NG1001-NG-NGN-SSA_1-DEF
Local Currency *	NGN
Settlement Currency *	USD
Settlement Region *	NG-NGN
Business date *	20190527
Buy Rate *	50.0000
Sell Rate *	350.0000
Single Rate	<input type="checkbox"/>

Reset
 Cancel
 Validate
 Modify
 Disable

PAPSS FX  
Window for  
Setting FX  
Rate for the  
Day

Audit			Audit Details
OPERATION	USER	TIME	
Approve	chioma	20190528 12:41:08.452	
Modify	AdetokunboO	20190528 12:38:02.019	
Approve	Admin1	20190516 07:46:51.656	
Modify	MartinsO	20190516 07:43:27.722	
Approve	Admin1	20190410 11:47:25.642	
Modify	Admin1	20190410 11:46:39.718	
Enter	Admin1	20190410 11:38:53.190	



# Legal & Regulatory and Risk Management Consideration

# Summary of Bye-Laws

## Purpose

- Govern the conduct of PAPSS Payment Scheme, Payment System and all participants

## Legal Basis

- Rights and interest of PAPSS
- Settlement Finality
- Enforceability of Regulations, Rules and Contract of PAPSS

## Governance Structure

- PAPSS Governance Committee role is to coordinate the various bodies and committees who will provide PAPSS oversight and input, develop the PAPSS ecosystem and approve the PAPSS budget. The PAPSS Governance Committee is responsible for making governing decisions affecting PAPSS.

## Others

- Participants Rights, Obligations etc.
- Technical Requirements
- Risk Management



# PAPSS Enterprise Risk Management Framework

## Phase 1: Design Framework

The activities in this phase include Design of Enterprise Risk Management Framework covering the following risk type:

- ✓ Operational Risk
- ✓ Information Risk
- ✓ Credit Risk
- ✓ Regulatory Compliance Risk inclusive of Anti-money laundering / counter-terrorism funding
- ✓ Market and Investment Risk
- ✓ Custody Risk
- ✓ Liquidity Risk
- ✓ Legal Risk
- ✓ Reputational Risk
- ✓ Strategy and Business Risk

## Phase 2: Design Policies and Tools

Activities include Design of Risk Policies included but not limited to:

- ✓ Risk Appetite Policy
- ✓ Operational Risk Policy
- ✓ Information Risk Policy
- ✓ Financial Crimes Policy
- ✓ Code of Conduct
- ✓ Code of Ethics
- ✓ Sanctions Grid
- ✓ Whistleblowing Policy
- ✓ Market and Investment Risk Policy
- ✓ Liquidity Risk Policy
- ✓ Legal Risk Policy
- ✓ Reputational Risk Policy
- ✓ Outsourcing Risk Policy
- ✓ Design of Risk Management Tools

# Conclusion and Critical Success factors



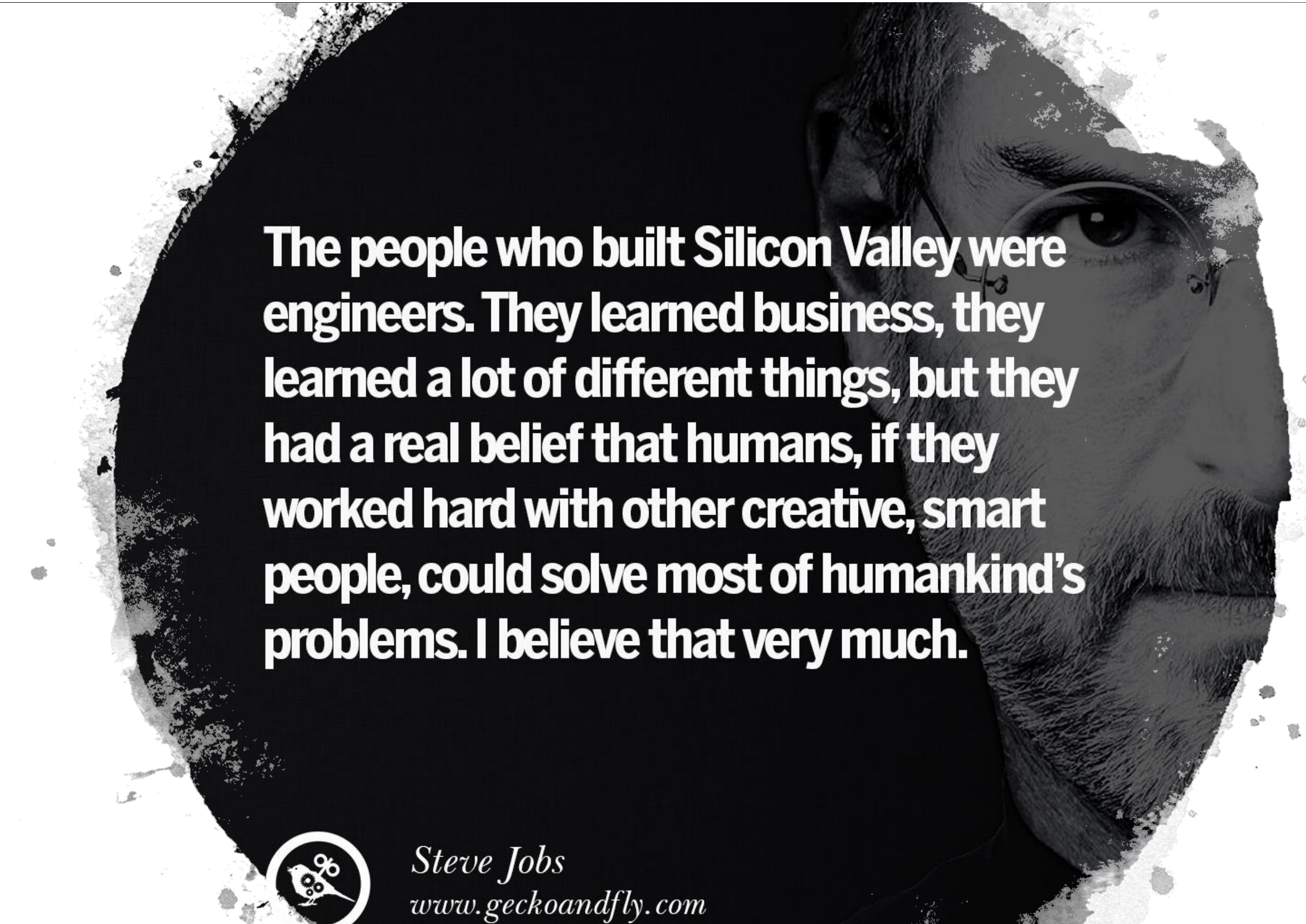
# Critical Success Factors for Innovation

## What worked well/critical success factor

- Executive Buy-in
- Stakeholder management is key
- Detailed research and what problem as we solving (does it have scale etc.)
- Ability to bring on board other technology partners and integrate easily (MPESA etc.)

## Key learnings/ things to watch out for

- How do you reduce the time to develop a product/innovation
- How do you use modern technology to drive mindset change for purposes of showcasing the solution up front
- How do you make sure your technology doesn't become obsolete (kodak challenge etc.)



**The people who built Silicon Valley were engineers. They learned business, they learned a lot of different things, but they had a real belief that humans, if they worked hard with other creative, smart people, could solve most of humankind's problems. I believe that very much.**



*Steve Jobs*  
*[www.geckoandfly.com](http://www.geckoandfly.com)*