



Demeter

Driving trust in property titles in Niger

ABOUT US



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13+ years of experience as a financial analyst.

MBA from Cornell (2016), an MA in Econ (2009), and BA in Economics and Political Science (2006) from the University of Ottawa.

Google amazon J.P.Morgan AON TD

✉ Zacharie Liman-Tinguiri



Karim Liman-Tinguiri

11+ years of software and machine learning

engineering experience. He holds a B.Sc. (2010) and M.Eng (2011) in CS from MIT.

Google TESLA Spotify

✉ Karim Liman-Tinguiri

PROBLEM

Lack of owner identification undermines confidence in property rights in Niger.

There are no digital land databases or owner identification registries in Niger: existing databases are PDFs of paper titles.

- No unique identifier for citizens to track their assets and tax payments.
- No equivalent to an SSN that is electronically searchable.
- No database of property owners.
- No single, digital, database of titles.
- No UTM coordinates for geolocation.
- Litigation is costly, tedious, & corrupt.

Owners rely on **posted warnings** to prevent sale of owned property



SOLUTION

Demeter solves this with a three-prong digital platform:



DIGITAL LAND REGISTRY

Geolocate properties using GPS coordinates and register geological properties and fiscal classification



PROPERTY OWNER REGISTRY

Voluntary, smartphone-based biometric identification of individuals matched to a government-issued ID.



PROPERTY MARKETPLACE

Design a marketplace where registered property owners can auction their titles.

PRODUCT

A trusted property title.

There are no digital land databases or owner identification registries in Niger.

- A physical and digital property title
- Mandated by the government
- Clearly identifies land assets on Google maps
- Can be easily authenticated with verifiable transaction histories
- Owners identity can be biometrically verified
- Can be auctioned on a digital platform
- Can be used for collateral to obtain credit

HOW IT WORKS

Each title will allow anyone to...

1. verify the current owner,
2. determine the location of the land, and
3. ensure tax payment + verify any liens.

Property ID	UTM geolocation
Owner ID	Biometric verification
Transactions	Blockchain-based
Historical Data	Transactions & ownership
Security	QR-code

VALUE PROP

OWNERS

- ✗ Do not trust title deed's veracity
- ✗ Cannot verify prior claims of ownership

- ✓ Secure property ownership rights
- ✓ Reduce fraud risk
- ✓ Use titles as collateral

BUYERS

- ✗ Cannot easily authenticate titles
- ✗ Lack of a standard format for titles

- ✓ Trust property titles
- ✓ Reduce fraud risk
- ✓ Easier to finance land purchases

BANKS

- ✗ Do not trust land titles' authenticity
- ✗ Do not accept title deeds as collateral

- ✓ Trust property titles
- ✓ Reduce fraud risk
- ✓ Able to accept titles as collateral

GOVERNMENT

- ✗ Unable to collect property taxes
- ✗ No standard unique ID for individuals

- ✓ Reduce title fraud
- ✓ Collect tax revenue
- ✓ Increase average property value

Eliminating fraud & driving value to all stakeholders.

SOCIAL IMPACT

Opportunity for **increased property tax revenue...**

Property taxes represent:

- ✓ **3.8%** of GDP in France,
- ✓ **3.02%** of GDP in the US,
- × **0.8%** of GDP in Brazil,
- × **0.1%** of GDP in Niger.

...which could help **fund critical development goals.**



Education Quality

Education spending is 3.5% of GDP (vs. 6% avg)



Reduce Inequality

Women own only 15% of land in Niger



Gender Equality

70% of women are illiterate vs 50% of men



Industry & Innovation

There is no digital registry of land ownership

ADVANTAGE



PRIVATE BLOCKCHAIN

Trustless and secure property records and marketplace.



BIOMETRIC AUTH.

Leverage smart devices to easily certify the identity of all parties.



GPS LOCALIZATION

and address-free plus codes for precise plot localization.



CLOUD COMPUTING

and machine learning for data analytics and fraud detection.

BUSINESS MODEL

FREE / AT-COST

- ✓ Property geolocation
- ✓ Owner Identification
- ✓ Issuance of secured property titles (at-cost)
- ✓ Property tax collection
- ✓ Transaction history
- ✓ Land price analytics (freemium)

CREDIT BUREAU

\$x,000+

Database of assets, existing loans, mortgages and liens.

Licensing: \$x,000 per yr.

Access: \$20 per query

MARKETPLACE

7%

Transaction fee on marketplace for sale of property titles

Fee: 2% of sale price
+ 5% government fee

Freemium software: generating income through data licensing & transaction fees.

FIRST-TO-MARKET

BEACHHEAD

Secured a **government mandate** from Niger:

for the **exclusive right** to build a property and owner registry, blockchain-based transaction record, and marketplace.

Niger will receive a **free license** to the system, and in exchange we are authorized to **monetize the data** and marketplace.

FUTURE TARGETS

Other countries are interested in digital blockchain land registries:

Expand to countries with validated demand:



Developing*

Colombia, Georgia,
Honduras, Rwanda



Experimenting

Ethiopia, Ghana,
Papau NG, Tanzania



Opposed

Kenya

* Denotes countries that have signed deals (not with Demeter) to build blockchain-based land-titling systems.

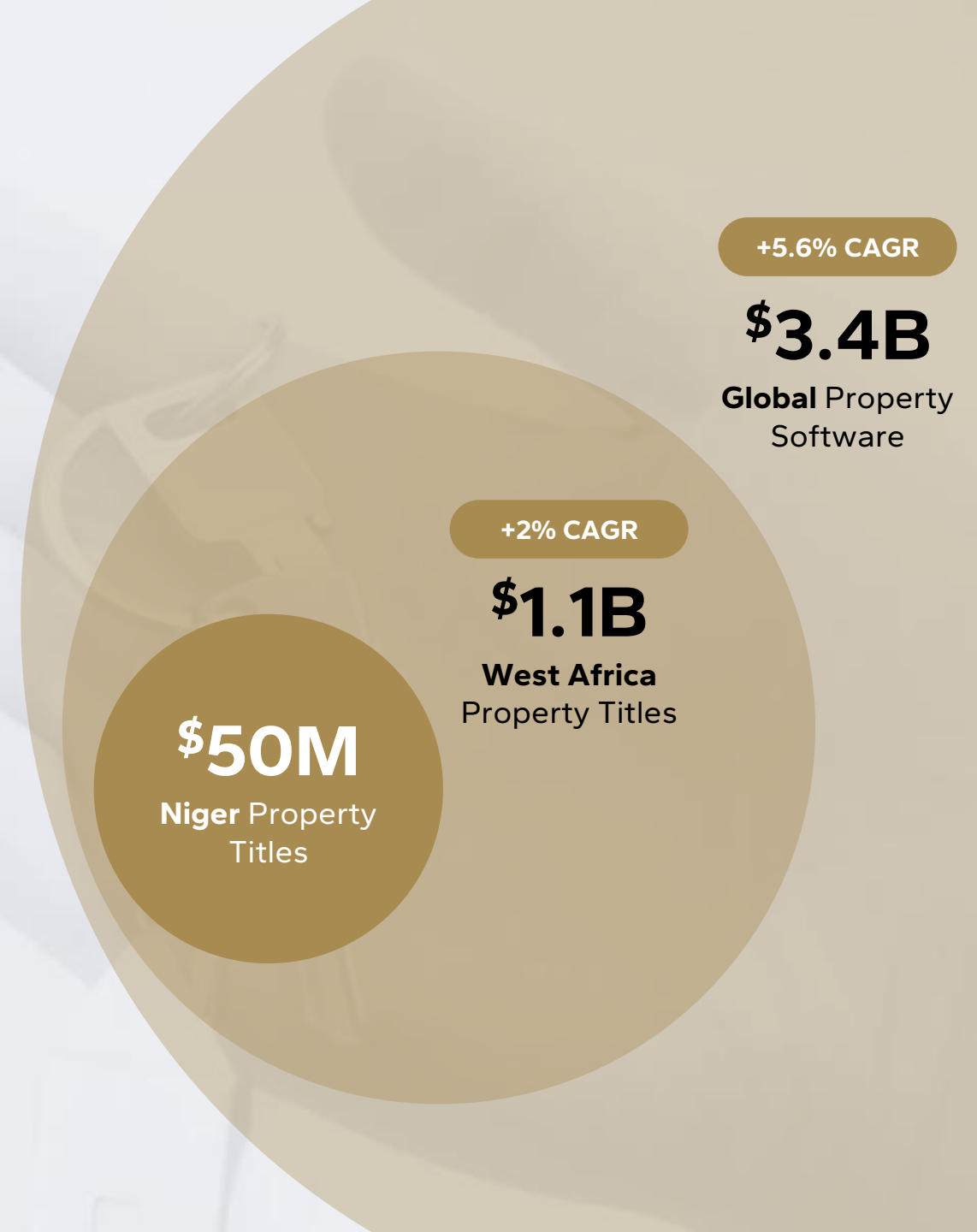
MARKET

A global, underserved **billion-dollar** market.

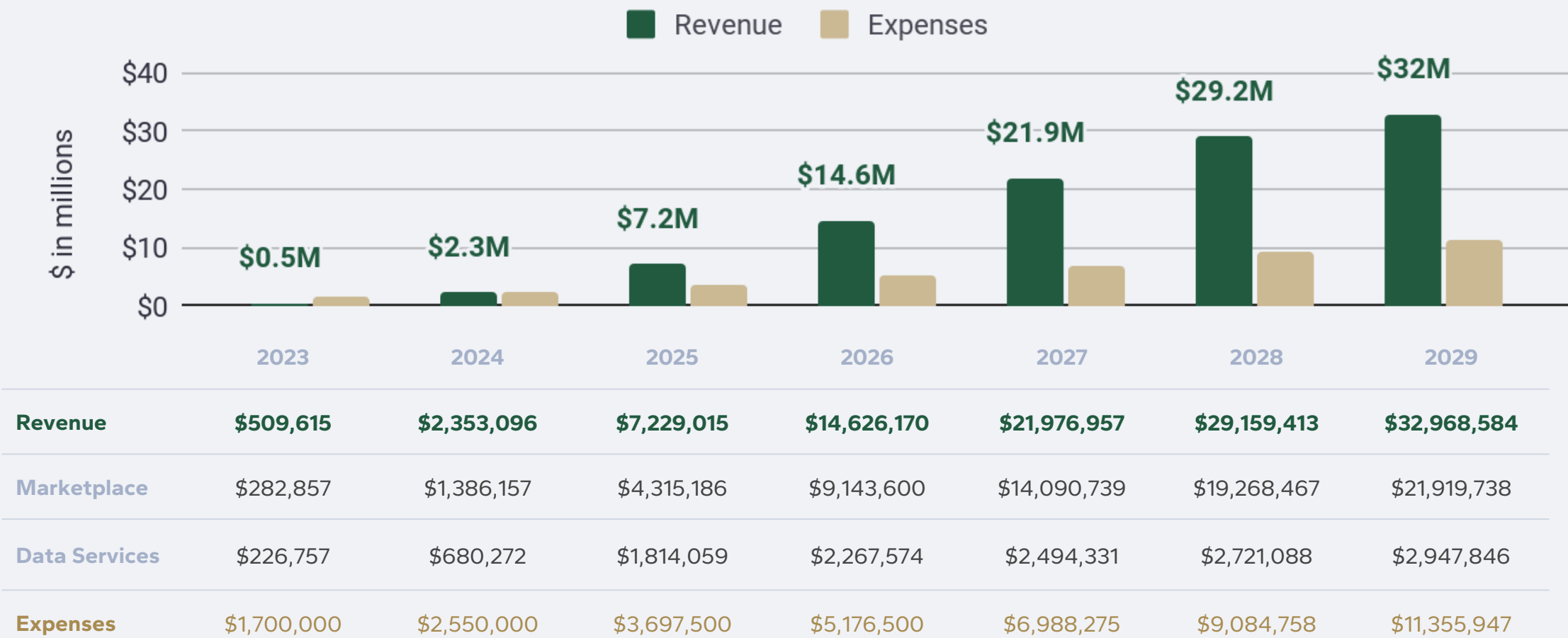
Demand for digital property titles is growing worldwide:

- Countries like Georgia (2016), Ghana (2018), and Honduras (2015) have **signed contracts** for digital blockchain-based land registries.
- **Over 1.5M** land titles have already been registered on blockchain-based systems.
- Digital property sale closings are more popular than ever: **up over 547%** since 2019.

Sources: [Grandview Research](#), Niger & W. Africa based on est. transaction



PROJECTIONS



* Assuming launch in Burkina Faso and Mali and Senegal in each of the subsequent years

INVESTMENT

Raising \$2.2M to build beta release & go-to-market in Niger.



ROADMAP

To-Date ✓

Customer Validation

Hired consultants in Niamey to interview key stakeholders (buyers, sellers, registry of deeds employees, tax authorities etc.)

Memorandum of Understanding

MOU with the Ministry of Finance of Niger for an exclusive license over issuance of tamper-proof auditable digital property titles in Niger.

2023

Design MVP

with Niamey Registry of Deeds: embed with the deeds issuance authority to design a backend data infrastructure and front-end app.

Back-end prototype

digitizing a subset of existing records and integrating our backend infrastructure with the existing process for a single source of truth.

Future

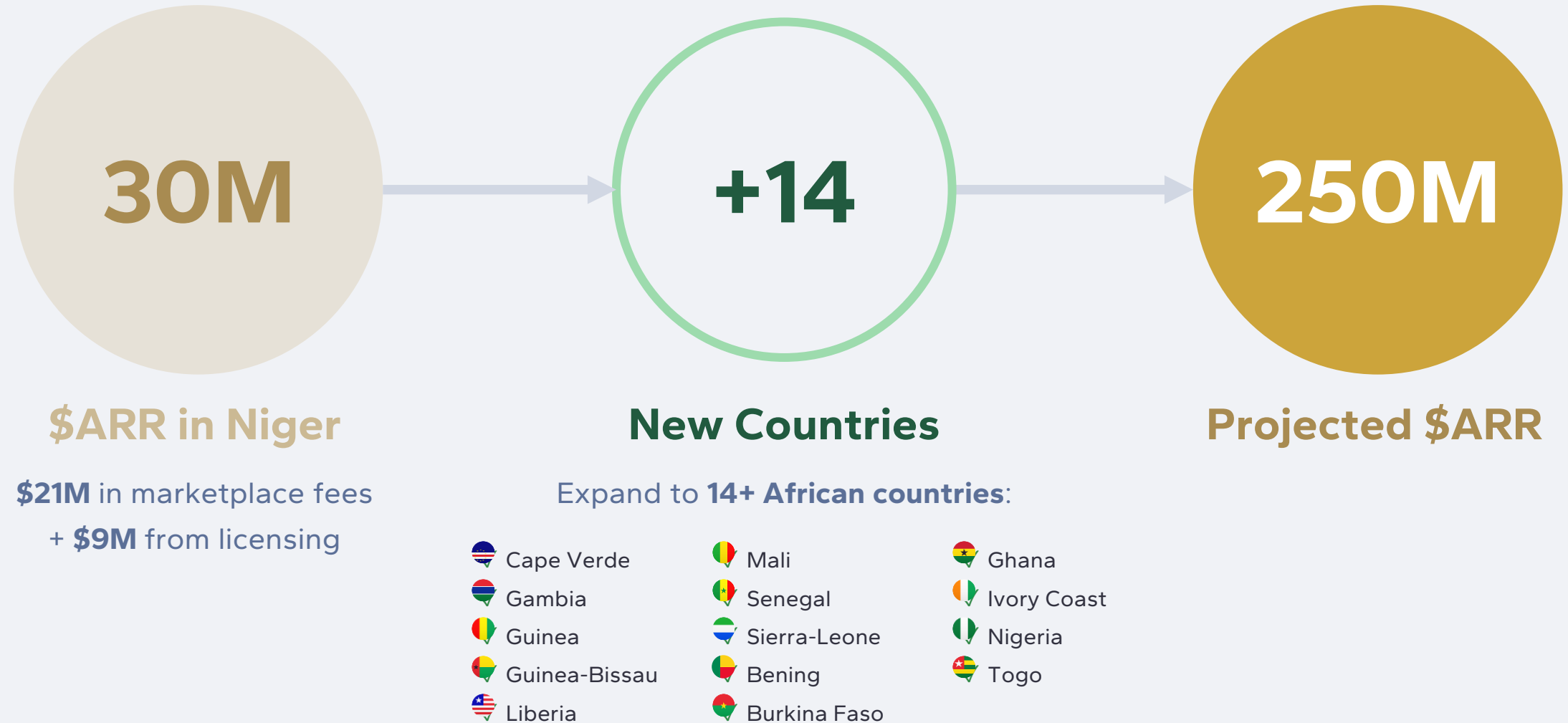
Design MVP

first external facing mobile app to authenticate, issue, and (with a notary) buy and sell real property in Niamey. Continue iteration based on feedback.

Global expansion

Expand to Francophone West Africa countries members of ECOWAS and other countries by extending our existing software.

VISION





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