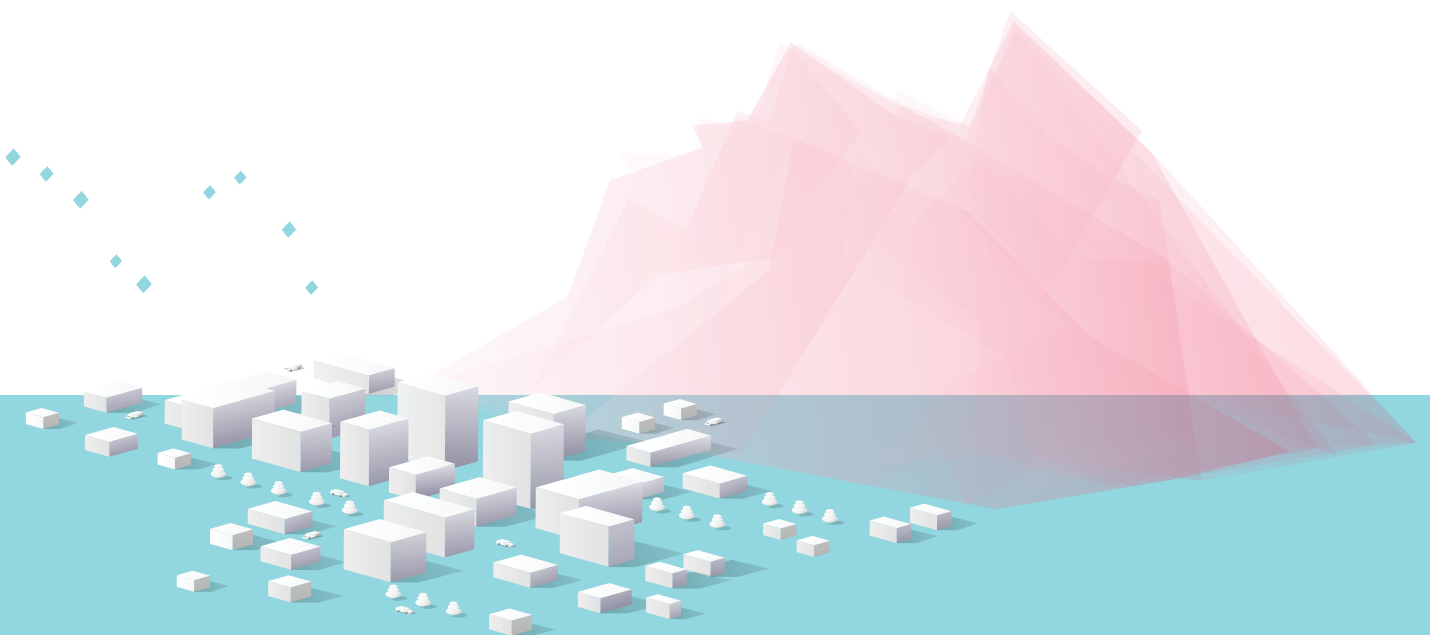
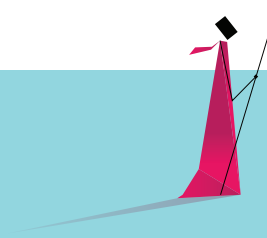
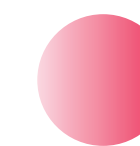


# air Litepaper

3AIR / SEPTEMBER 2022



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# EXECUTIVE SUMMARY

Blockchain technology is disruptive, and its influence continues to spread. Satoshi Nakamoto outlined in his work (Nakamoto, 2008) that Bitcoin and blockchain technology should and will liberate and empower people, especially those underprivileged and suppressed by corrupt governments or institutions.

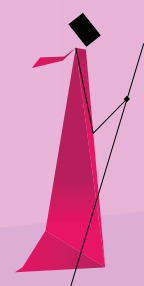
3air aims to connect the unconnected by bringing broadband internet connectivity to places where it is impossible or uneconomical to build these systems using traditional methods. We plan to develop, test, and deploy new features outlined in this document to change how internet subscription services and the general telecom industry operate in these regions.

3air is building a platform based on blockchain technology that will enable traditional systems to port to the blockchain with additional improvements in security, traceability,

customer care, and privacy. By creating a solid user base, we will develop, test, and deploy a blockchain platform to facilitate telecom services tokenization.

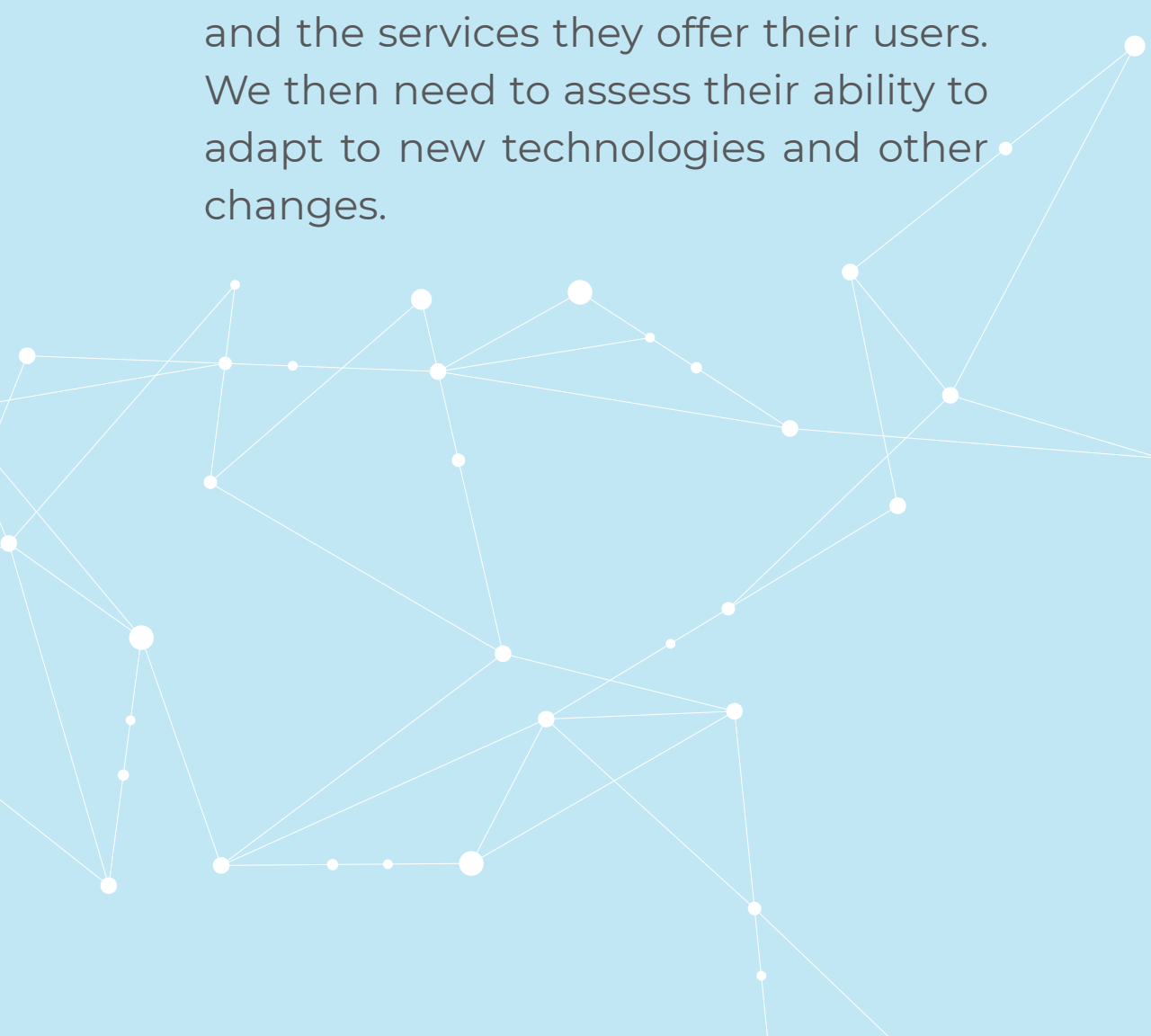
Launching in Africa's urban areas and then expanding beyond the African continent, our solution will bring fast, stable broadband to cities in Sierra Leone (infrastructure already in place), the Democratic Republic of the Congo (DRC), Ethiopia and Nigeria. We will bring people reliable connections to the outside world as a service, enabling them to be included in the global educational, health, financial, and business economies.

Connecting the unconnected will bring millions of new users to our platform, and with growth comes power. Power to connect with others and make radical changes within the telecom industry.



## Problems

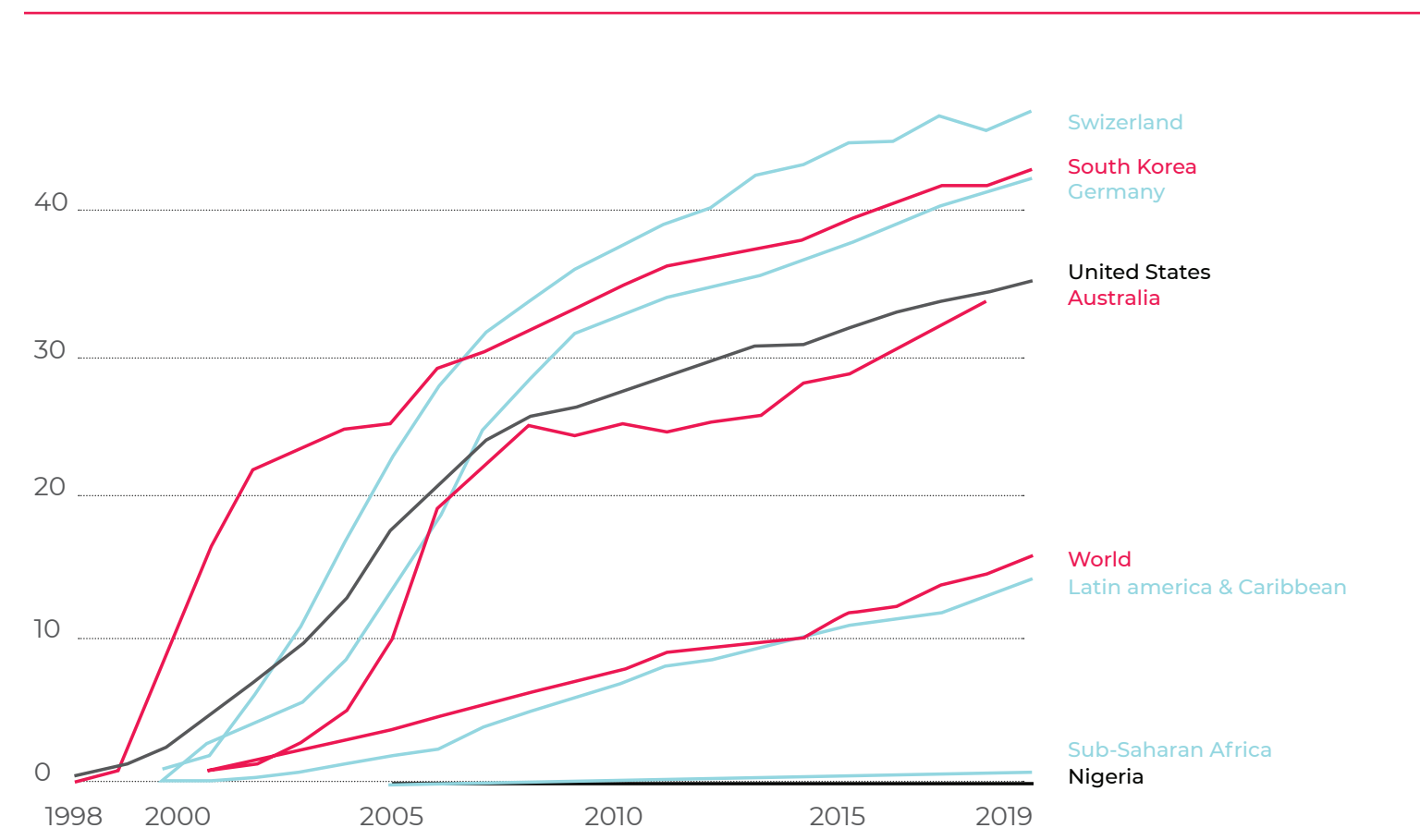
Broadband internet connectivity plays a big role in accessing development opportunities in emerging economies. To build a successful ISP platform in developing countries, we first need to look at the existing ISPs in these areas and the services they offer their users. We then need to assess their ability to adapt to new technologies and other changes.



# PROBLEMS & SOLUTIONS

### Lack of Infrastructure

While many mobile network providers already operate in the developing world, broadband infrastructure in Africa is almost nonexistent. Just 1% of people (urban and rural) have broadband access compared to 40% in developed countries. Many explanations and excuses are given for Africa's lack of broadband infrastructure and no one has shown the will to build it in the future. Though future advances in mobile network technology may someday threaten to overtake broadband, it will be a long time before this becomes a reality. Broadband networks, now and in the near future, are the faster and more stable technology.



Broadband subscriptions per 100 people, 1998 to 2019  
 Broadband subscriptions refer to fixed subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or greater than 256 kbit/s.

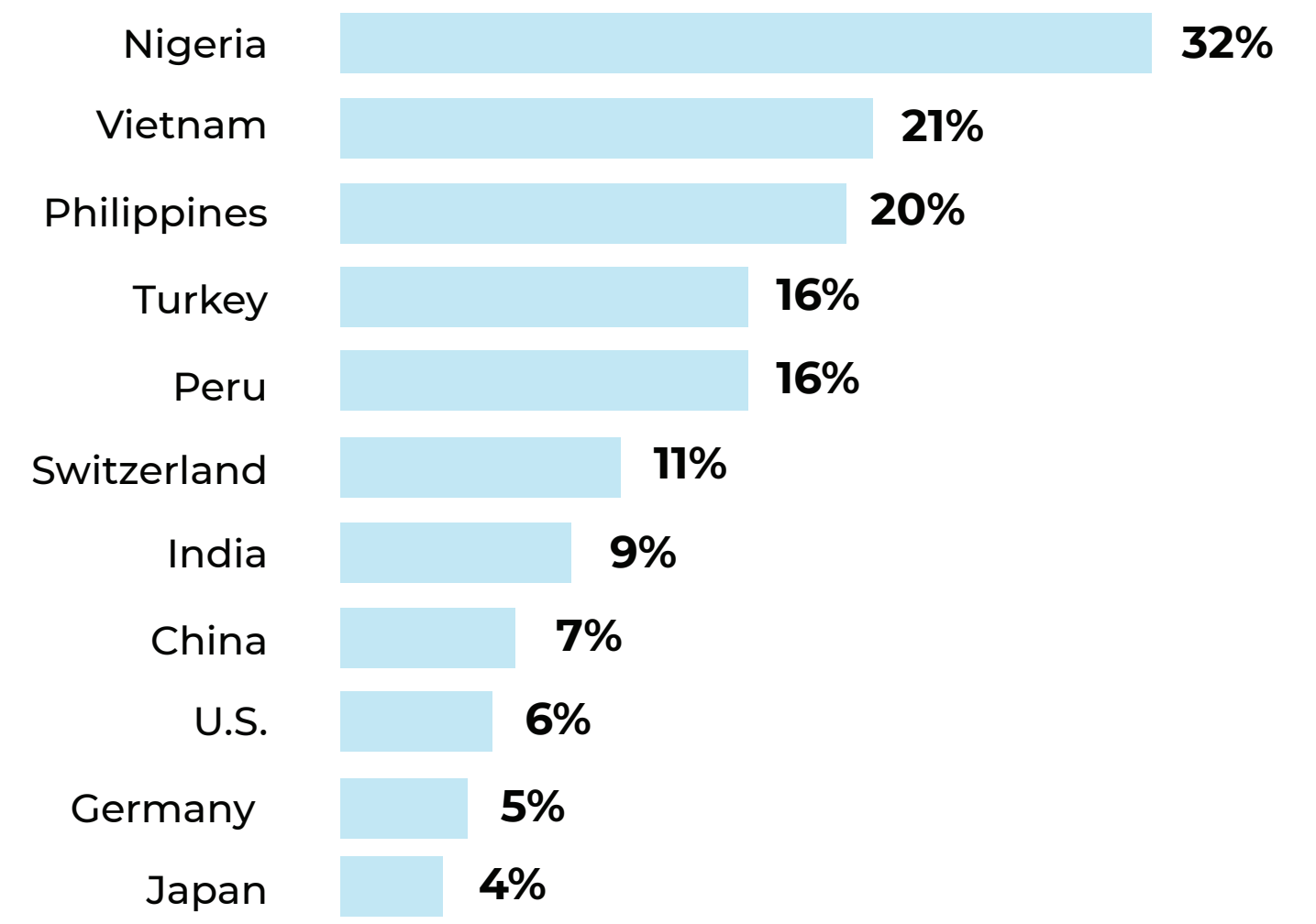
Figure 1: Broadband subscriptions per 100 people, 1998 to 2019  
<https://ourworldindata.org/internet#broadband-access>

## Identification and Payment

Major drawbacks in means of identification and payment limit access to broadband services in developing countries.

There are over 1 billion people worldwide without the means of identifying themselves (Desai, Di-ofasi, & Lu, 2018), and that is a potential problem in acquiring services, including connecting to the internet. Over 31% of adults worldwide do not have access to proper banking services (Felsenthal & Hahn, 2018). Hence, they have limited options to pay for goods and services and no means of building a credit line.

Even with limited connection and hardware, it seems that global inclusion is possible without banks. For instance, Nigeria leads the world in blockchain and cryptocurrency adoption with a 32% adoption rate (Olu-wole, 2021).



## Solutions

We have partnered with **K3 Telecom AG** to facilitate the adoption of the 3air platform. K3 Telecom AG is a Swiss broadband provider specializing in building broadband infrastructure and providing quality broadband services in densely populated cities of developing countries.

### Our core objectives include to:

- Provide broadband connectivity to cities in Africa.
- Create an easy-to-use system for acquiring ISP services.
- Give users control over their identity and credit line.
- Facilitate efficient community building and loyalty programs for ISPs.
- Provide cross-collateralized and undercollateralized microloans to people in Africa.
- Implement security and fraud prevention features.
- Enable secondary markets for bandwidth and other subscription services.
- Build a robust IoT platform for ISPs.
- Connect ISPs around the globe and enable true seamless roaming.

### Our solution will be implemented over three stages:

Stage 1 - Constant expansion throughout Africa to provide broadband connectivity to the masses.

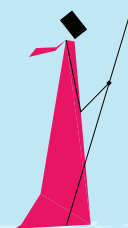
Stage 2 - The 3air platform will provide easy access to identity management, payments, and credit line building services.

Stage 3 - Changing how telecom services are consumed. We will become the world's first blockchain-based ISP platform.

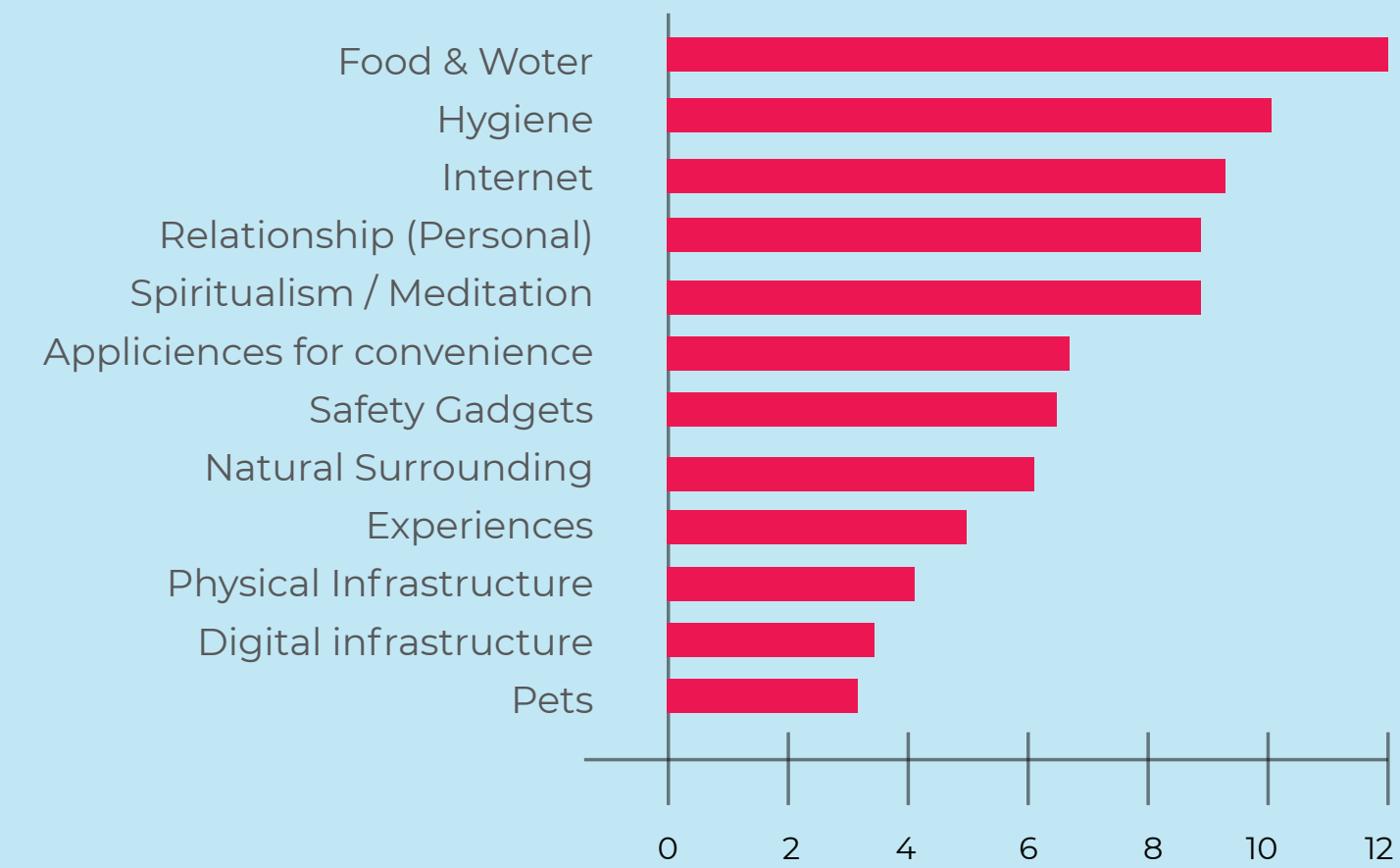
# TARGET MARKETS SOLUTIONS

3air aims to deliver the perfect solution to create our own market through our partnership with K3 and its proprietary technology.

We have a short to mid-term focus on emerging African markets.



## Most important things for people in today's life



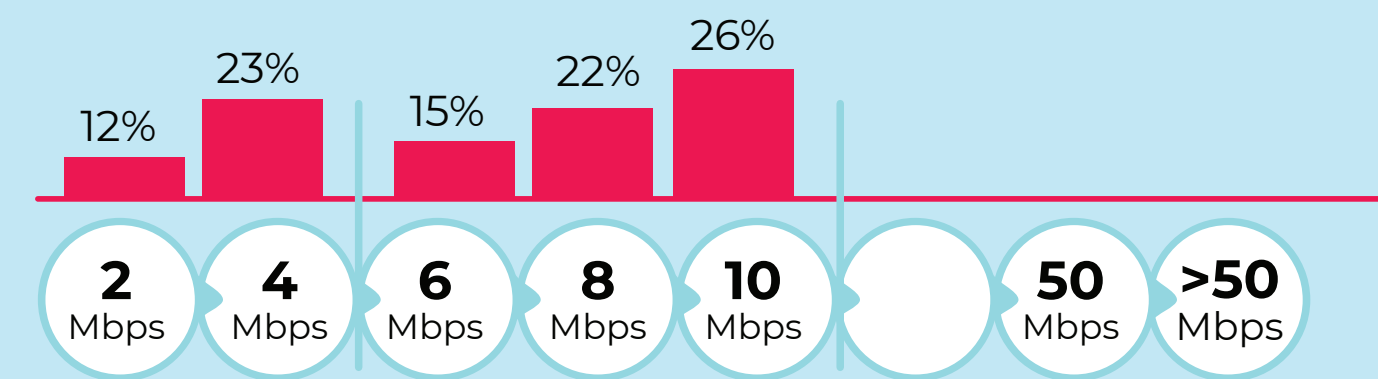
Our long-term projection is to position our platform globally as the first choice to access and manage bandwidth and ISP services among other functionalities.

Our unique solution positions us to tap into an unexplored market with an estimated valuation of \$97 billion annually (assuming a 12% broadband penetration rate).

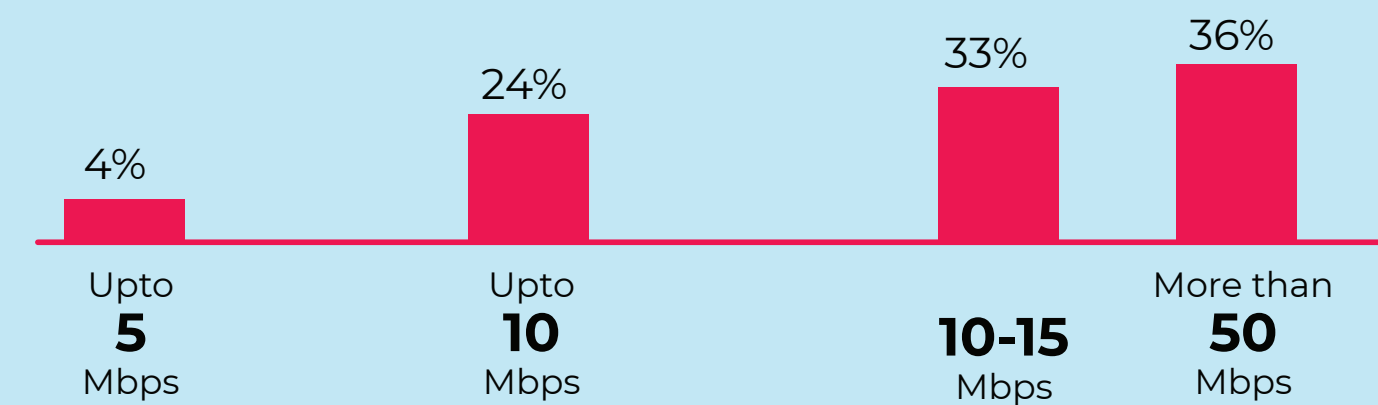
The biggest obstacle to our success is a lack of infrastructure, however with less than 1% broadband penetration in Africa, our unique technological advantage will allow us to achieve platform growth in a receptive market before competition enters the space. According to research and our survey of over 300 respondents from Nigeria, fast internet is a top life priority. Additionally, Africans are enthusiastic about both broadband and cryptocurrency adoption.

After the successful rollout in Africa, we will explore other emerging markets and enter new partnerships with established ISPs around the globe.

## Current internet speed



## Desired internet speed



## Competition

3air will face a variety of competition from traditional telecom giants to new arrivals using innovative solutions, including blockchain technology. No one within the space is building on the novel infrastructure that we are currently developing so any competition is non-direct.

### Competition in the Blockchain Space

- Telcoin
- Dent
- Corda
- Ammbr
- World Mobile Token

### Future Competition

- 5G technology
- StarLink

# 3AIR ECOSYSTEM

The 3air blockchain platform will provide an easy-to-use, blockchain-based ISP management system with the integrated security, transparency, and low fees needed to operate a stable and reliable telecom network.

The whole project is divided into 3 stages:

**1** Create a market for broadband infrastructure in Africa with the K3 partnership.

**2** Build the blockchain ecosystem.

**3** Expand the platform with additional functionalities and onboard new ISPs.

## SKALE Blockchain

Skale is a system of containerized networks capable of running an unlimited amount of secure, decentralized, high-performance blockchains native to Ethereum.

Please, find more information about [SKALE here](#).

## K3 Broadband Solution

The best platforms are only worth as much as they are used. Bolstered by K3's unique solution for building broadband, we project up to 1 million users for the 3air platform within the first 3 years.

After developing the platform and testing it with real users, we will open to additional ISP providers, aiming to create a globally connected platform.

## Core Functions of the 3air Platform

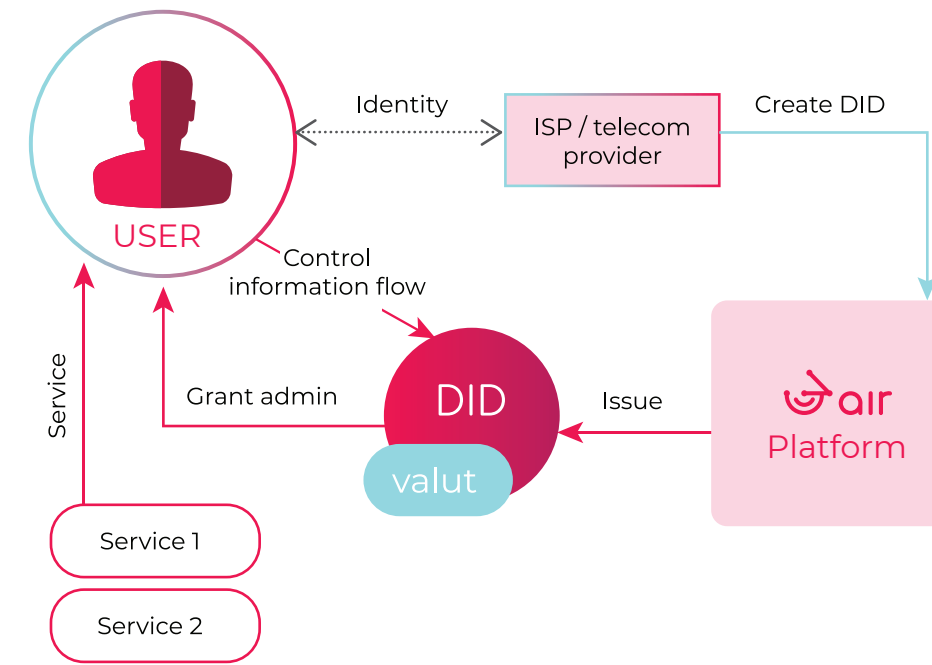
### Digital Identities

Identification is a cornerstone of society. However, many of Africa's population still lacks proper identification and provable records in essential fields such as finance, education, and health. In a trustless, secure, and private system, digital identities can allow authorized users to check credit scores, medical history, and proof of education verifiable directly on the blockchain.

ISPs are perfectly suited for identification services. They currently process a lot of relevant personal information about their customers, but they are not part of the authentication and identity services in general. 3air can make use of this inherent potential.

With the 3air platform, ISPs could provide identity-as-a-service services and earn additional revenue streams or offer extra value to their clients.

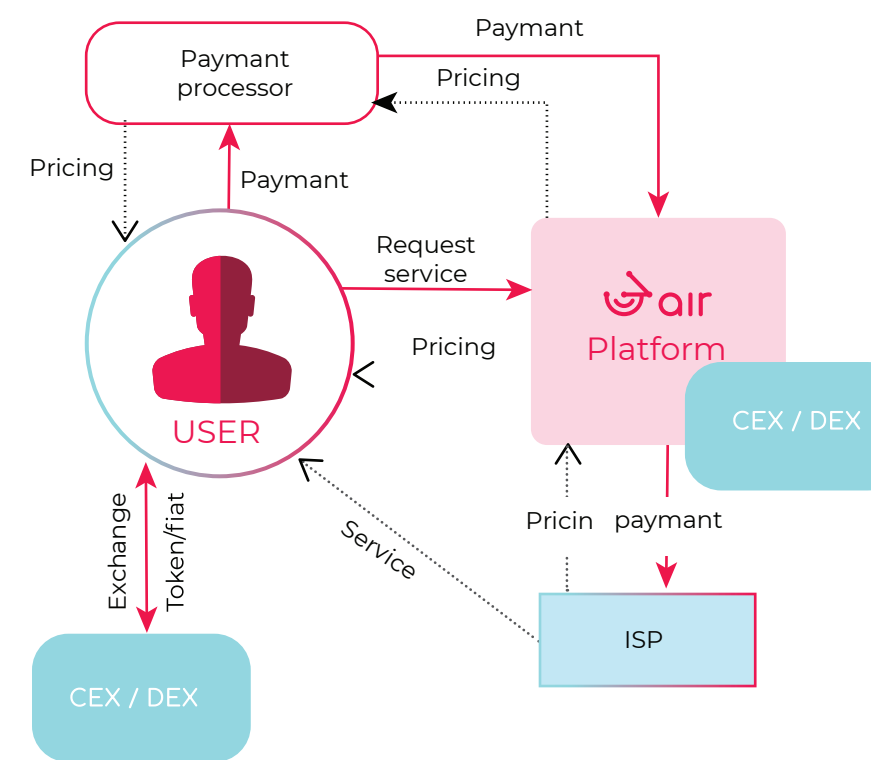
A reliable digital identity may be recognized by central authorities and could potentially serve as official means of identification. Such an identity will have many benefits for both the client and the ISP.



### Payments

All transactions on the 3air platform will be made with 3air tokens to promote token adoption. We also aim to achieve third-party adoption and inclusion in the future.

To achieve mass adoption, we need to resolve ease of use. For this reason, we will include other payment options and facilitate backend conversion of payments into 3air tokens. This service may attract additional fees to motivate 3air token payments.



## Bandwidth Sharing

K3 is already testing a technical solution that permits sharing bandwidth through special access point nodes. For its part, 3air will provide the ideal interface and blockchain solution.

There are 2 main issues with bandwidth sharing:

- Local regulations,
- Terms and conditions from the ISP.

To avoid these issues, we will facilitate service variation on our platform, where ISPs can choose to allow bandwidth sharing and charge a premium fee. Users that acquire such a package will be provided with proper access point hardware and software. To avoid regulatory issues, the users will authenticate with their DIDs or use the internet under a short-term public connection policy that requires light authentication only.

## Connectivity NFTs

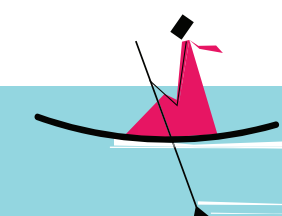
3air users will be able to acquire 3air services through the power of NFTs.

### Device NFTs

The first type of NFT's will be issued by 3air to the customer. These are unique NFTs that work to identify the exact hardware of the user and assist us in delivering them optimal services.

### Connectivity NFTs

A second type of NFTs will then be used to provide information on the exact services (such as subscription based services) that need to be provided to the Device NFT. These NFTs may be used in many novel ways allowing for secondary markets, transferring of subscriptions, donations, unique business models and more.

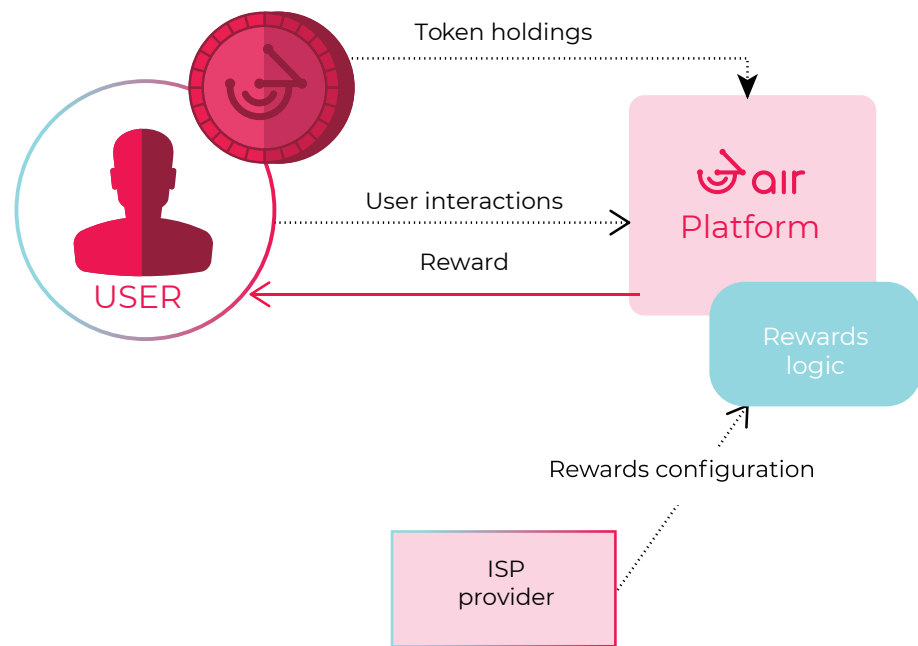


## Rewards and Loyalty System

The 3air platform will include a loyalty system that provides 3air token rewards that will be at the user's discretion to use and customize.

The 3air rewards and loyalty system will evolve. A few examples of the functionalities that may be integrated are gamified ranks, airdrops, coupons as NFTs and more.

The system aims to provide a customizable token-based rewards system suitable for ISPs.



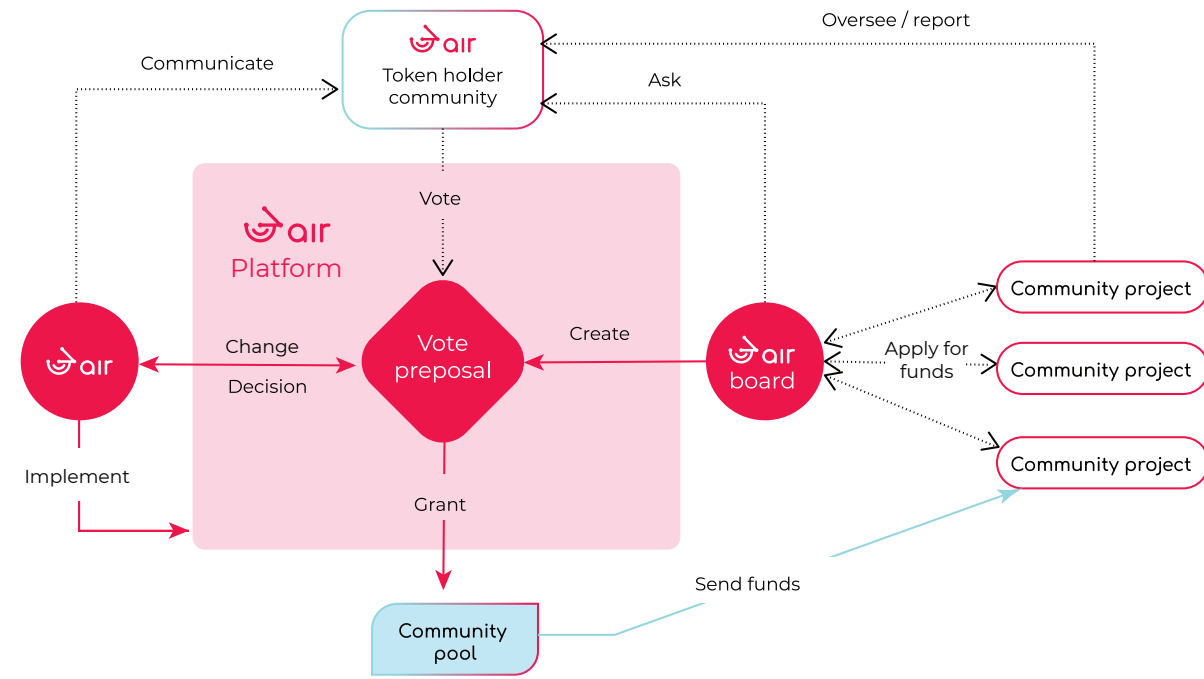
## Community Building and Governance

3air aims to become fully decentralized with time. Governance is a major part of the 3air platform and token use case. It will help to build the community, incentivize token holding and improve token adoption and decentralization.

There are many on and off-chain governance solutions available for EVM-compatible chains, but Snapshot is one of the most popular and fully integrated with Skale.

The community pool is another part of our plan to decentralize 3air. 3air could regularly provide funds to the community pool. The pool may be funded with a fraction of the fees collected from platform transactions.

The community pool aims to incentivize participation in the decentralization of 3air and help develop the local social communities by funding beneficial projects.



## Voting strategies

Decentralized governance is not perfect, and new systems and voting strategies are being developed. Usually, we associate on-chain voting power according to individual token holdings. It may be considered fair, but it comes with flaws and inequities, as pointed out by Vitalik Buterin (Buterin, vitalik.ca, 2021).

3air is following the latest developments in decentralized governance (DeGov). We believe reputation-based voting may be the future of DeGov combined with quadratic voting. One of these systems is the Orange protocol (protocol, 2021).

In such a system, more engaged users will have more voting power than strictly passive token holders that usually represent the speculative investor.

## Own your own hardware incentive

It is common for an ISP to charge a connection fee to lease the required hardware to the customer. The usual hardware includes a modem, a router, or a TV box.

A token economy provides a different approach to this practice and creates new value for all participants. We propose the "Own your own HW" incentive, where users can become the owners of their hardware and the company gains long-term clients. The implementation of this approach might be modified in some regions.

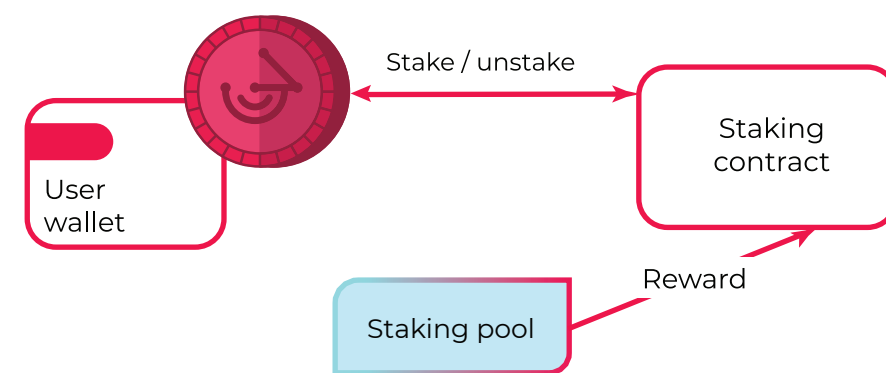
The company will provide the client with 3air tokens worth less than the HW's value. The client can use the HW as long as they have a valid subscription and their

3air tokens remain locked. If the client discontinues their subscription (e.g. during the first 12 months), the locked tokens are returned to the company, and they need to return the HW.

After the lockup period, the user may decide to unlock their tokens by paying for the HW to keep the tokens and become the owner of the HW. These locked tokens are not part of any staking pool and generate no yield. The whole token economy benefits as the total value locked (TVL) rises with each new user.

## Staking

To promote other "hodling" incentives, 3air may provide a staking pool where users can receive rewards by staking their tokens. 3air will provide an easy-to-use application governed by a smart contract that will enable staking.



## Early Staking Pools

Upon launch, 3air will provide a pre-staking application within the 3air app (app.3air.io) under the staking tab.

## Floating APY pool

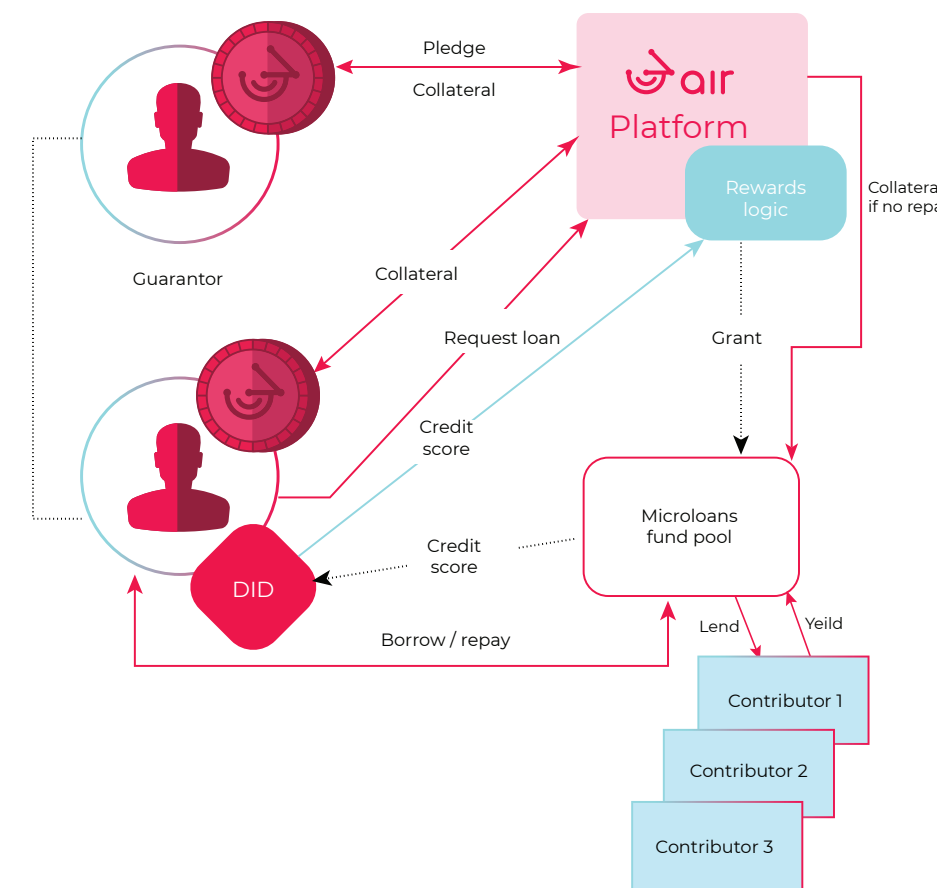
3air will start with a continuous staking pool that will be available for an undefined period of time.

## Microloans

There is enormous potential in providing additional financial services in developing countries, but they come with special considerations too. The issues include low repayment rates unless strict selection processes or proper enforcing mechanisms exist.

As a platform for ISP providers and DID issuers, we will explore the options of providing microloans to customers for acquired services. With a valid payment track record and other personal information, we can enter low-risk microloans in the scope of previously acquired services. Additionally, 3air tokens can be staked as collateral for loan repayment.

With time, a large amount of data should enable us to build a sound credit score model that could allow the 3air platform to expand microloans beyond the ISP providers, giving customers options for financial inclusion and standard banking services.



## Telecom Management System (TMS)

TMS is a unique all-in-one software solution for telecom operators. It aims to create a single software solution for every employee and company function. TMS is more than just some service software; it includes proven procedures for completing everyday telecom tasks like activating customers, handling support tickets, or-

ganizing networking departments, or day-to-day planning of field installation teams.

The system must also be secure and protected against fraud.

We will develop a one-click, modular, white-label TMS solution that is both simple and scalable. The modules will include metering, billing provisioning, controlling, community building, loyalty-building, and other features specially designed for the telecom industry. Connections with accounting software providers will be automated.

As the platform develops, TMS will be upgraded with additional modules and features.

## Future development

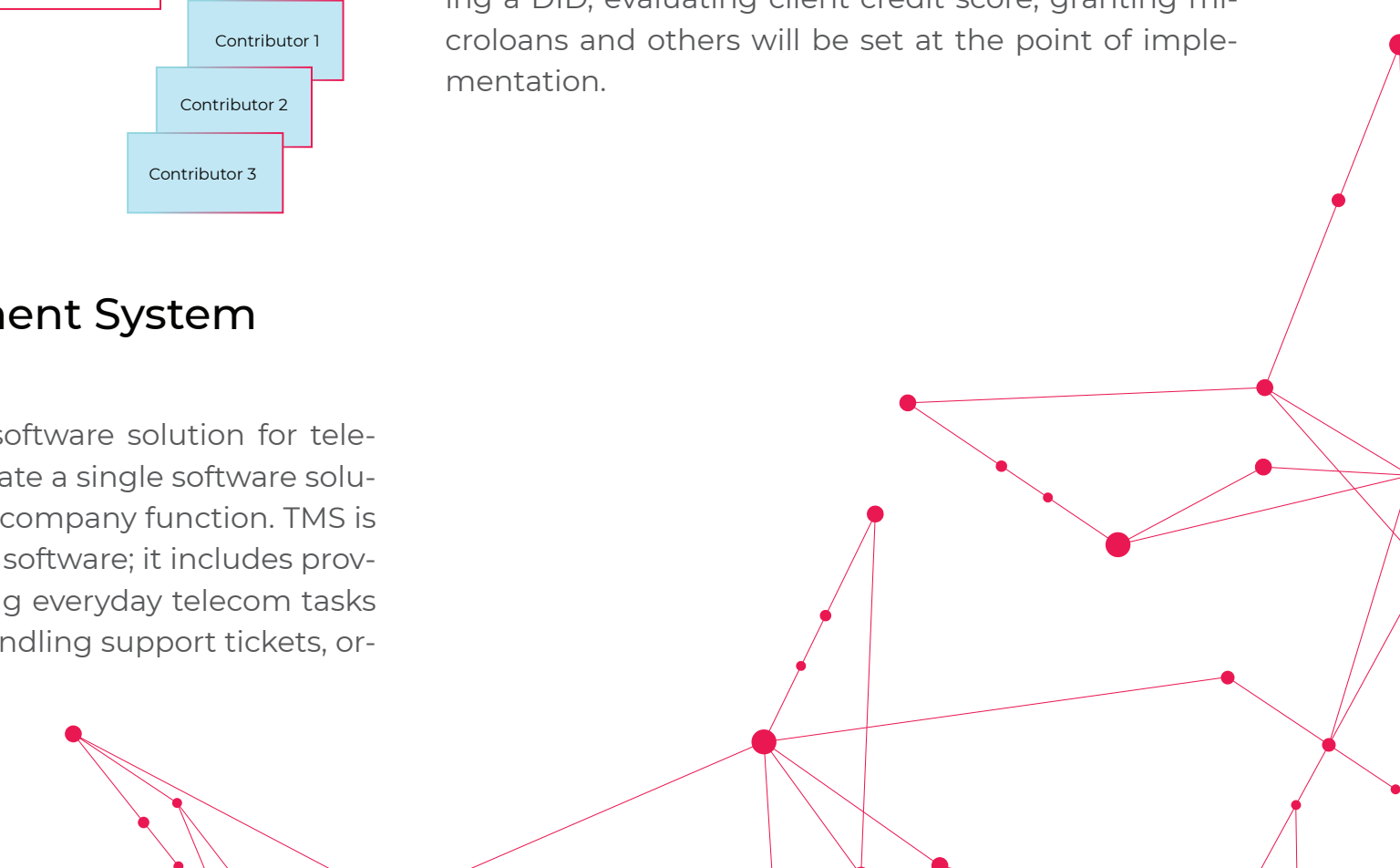
In the third phase, 3air will become the go-to platform for ISPs because it will provide identity, payment, community, governance, marketing solutions, and other functions.

The main benefits that 3air could provide for ISPs in the future include fraud prevention, increased access to services, bandwidth distribution and more.

## Business model

3air will operate on a fee basis for the provided platform services. Fees will vary according to the type of service and client turnover.

The standard transaction fee is currently 1% of the total transaction. The rates for other services such as creating a DID, evaluating client credit score, granting microloans and others will be set at the point of implementation.



# ROADMAP & MILESTONES

- **November 2020**

- Initial idea

- **January – March 2021**

- Idea development
- Strategic partnerships

- **April 2021**

- K3 cooperation agreement

- **May 2021**

- Core team selected
- First market analysis

- **June - September 2021**

- Whitepaper
- Business plan
- Marketing plan
- Second market analysis
- Seed funding acquired

- **October 2021**

- Private sale start
- Start of community building

- **November 2021**

- Public sale start

- **Q1 2022**

- Audited token contracts
- Audited vesting contracts
- Token claim platform

- **Q2 2022**

- NFT marketplace beta
- DID app beta

- **Q3 2022**

- TGE
- Early Staking
- Platform beta testing
- First CEX listing
- First DEX listing

- **Q4 2022**

- SKALE network integration
- NFT platform launch
- Multichain bridge
- Start of infrastructure building in DRC
- Connectivity NFTs

- **Q1 2023**

- Governance
- Token Burning
- Start of infrastructure building in Ethiopia

- **Q2 2023**

- 3air platform & app main launch
- First 3air platform users
- Agents program

- **Q3 2023**

- Start of infrastructure building in Nigeria
- Loyalty program
- Own your own hardware

- **Q4 2023**

- Credit scores

- **2024 - 2025**

- Full microloans implementation
- Service tokenization
- 3M users
- IoT platform
- Bandwidth distribution through blockchain
- Roaming through blockchain
- Open ISP platform

In cooperation with K3, we are aiming to provide infrastructure and services to new locations every 4 months (depending on funding) in the following order: **DRC, Ethiopia, Nigeria, Congo Brazzaville, Ivory Coast, Ghana, Sudan, Mozambique, Zimbabwe, Kenya, Senegal.**

## Metrics and Key Performance Indicators (KPIs)

KPIs are a must if projects are to be guided towards scalability and sustainability. They measure efficiency and must be constantly updated so as to evolve, adapt, and grow with the project. These are by no means the exclusive KPIs 3air will use.

### Sales:

- New clients signed
- Revenue per client
- Total platform users

### Customer support:

- Number of tickets created
- Opened and solved tickets
- Average ticket closing time
- Average reply time

### Marketing:

- Media coverage
- Social media following

### Development:

- Downtime
- Codebase code coverage %
- Code commits
- Sprint and release burndown



# GROWTH & VALUATION

## Users

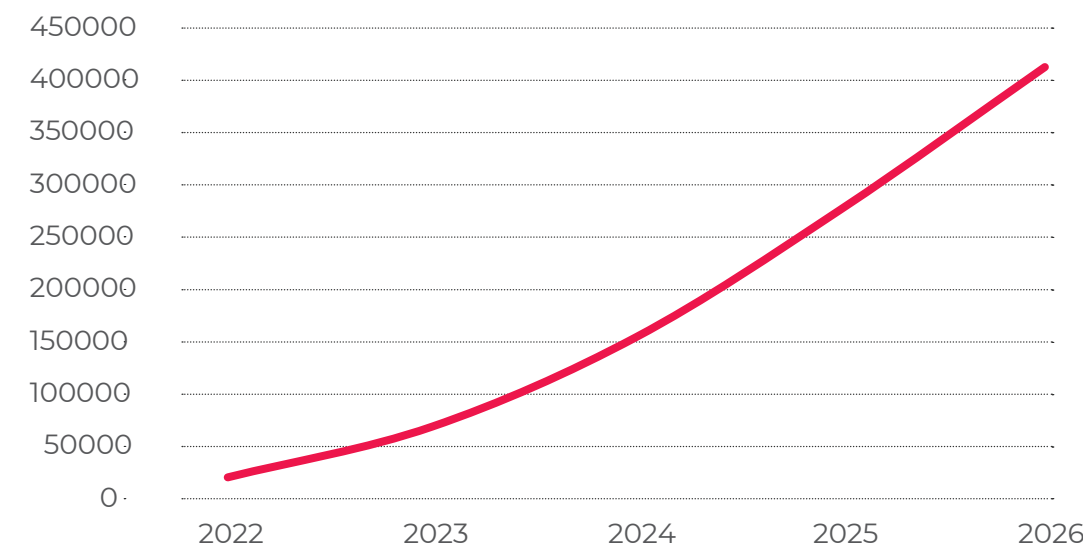
We project exponential app user growth. The first users will come to the platform through the K3 partnership. There are already over 2,000 active customers using K3 services that could potentially migrate to the 3air platform once it's operational. This partnership may bring 400,000 active users to the platform by 2026.

Expected user growth from the K3 partnership, according to the roadmap and real-world data from Sierra Leone:

These numbers only represent active users on the platform through the K3 partnership. We also aim to onboard other ISPs to the platform and potentially reach 1 million users by 2025.

	2022	2023	2024	2025	2026
Potential users from K3	19,500	68,200	154,300	276,800	413,700

### Potential users from K3



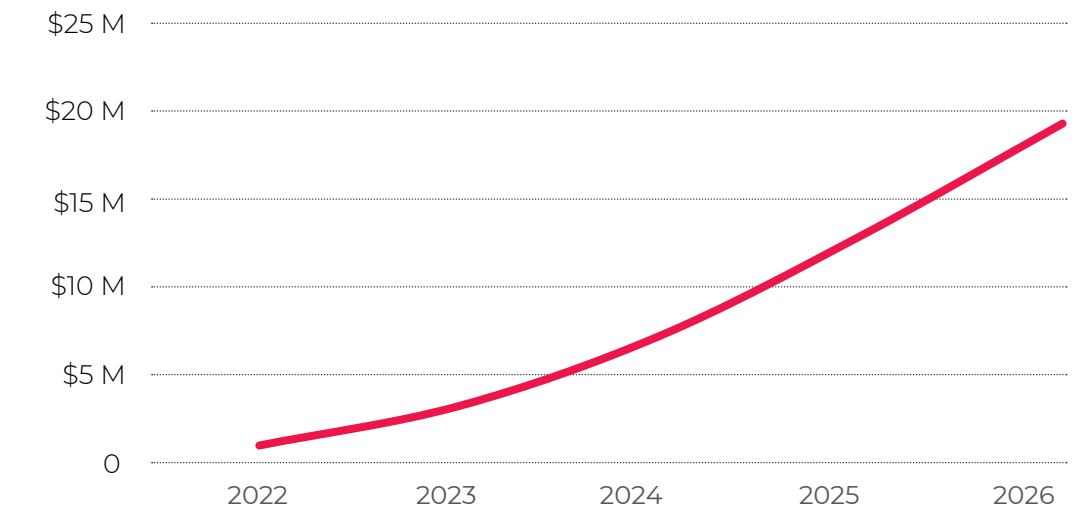
## Revenue

Using real-world data from K3 Sierra Leone, the average revenue per user sits around \$130 per month. As Sierra Leone is one of the lower-income countries, even by African standards, we are certain that the average revenue in other African countries will be higher than this mark.

With a 3% fee on the turnover (this is the rate specially agreed upon with K3 and may not apply to other ISPs) 3air could grow quickly and sustainably. With other ISPs joining the platform, revenue could also grow exponentially.

	2022	2023	2024	2025	2026
Potential 3air revenue from K3 partnership	\$0.9M	\$3.2M	\$7.2M	\$13.0M	\$19.4M

### 3air revenue from K3 partnership



If we reach 1M users by 2025, 3air's revenue could reach \$180M.

## Project valuation

Evaluating a token economy is challenging. The most widely used metric to evaluate telecom companies is the EV/EBITDA method. Considering the K3 partnership alone, the 2025 valuation of 3air could potentially be over \$2.1B.

For a more detailed overview of the 3air brand and its various business components, please refer to the whitepaper.

	2022	2023	2024	2025	2026
Valuation	\$148.2M	\$518.3M	\$1.17B	\$2.10B	\$3.14B

### Valuation

