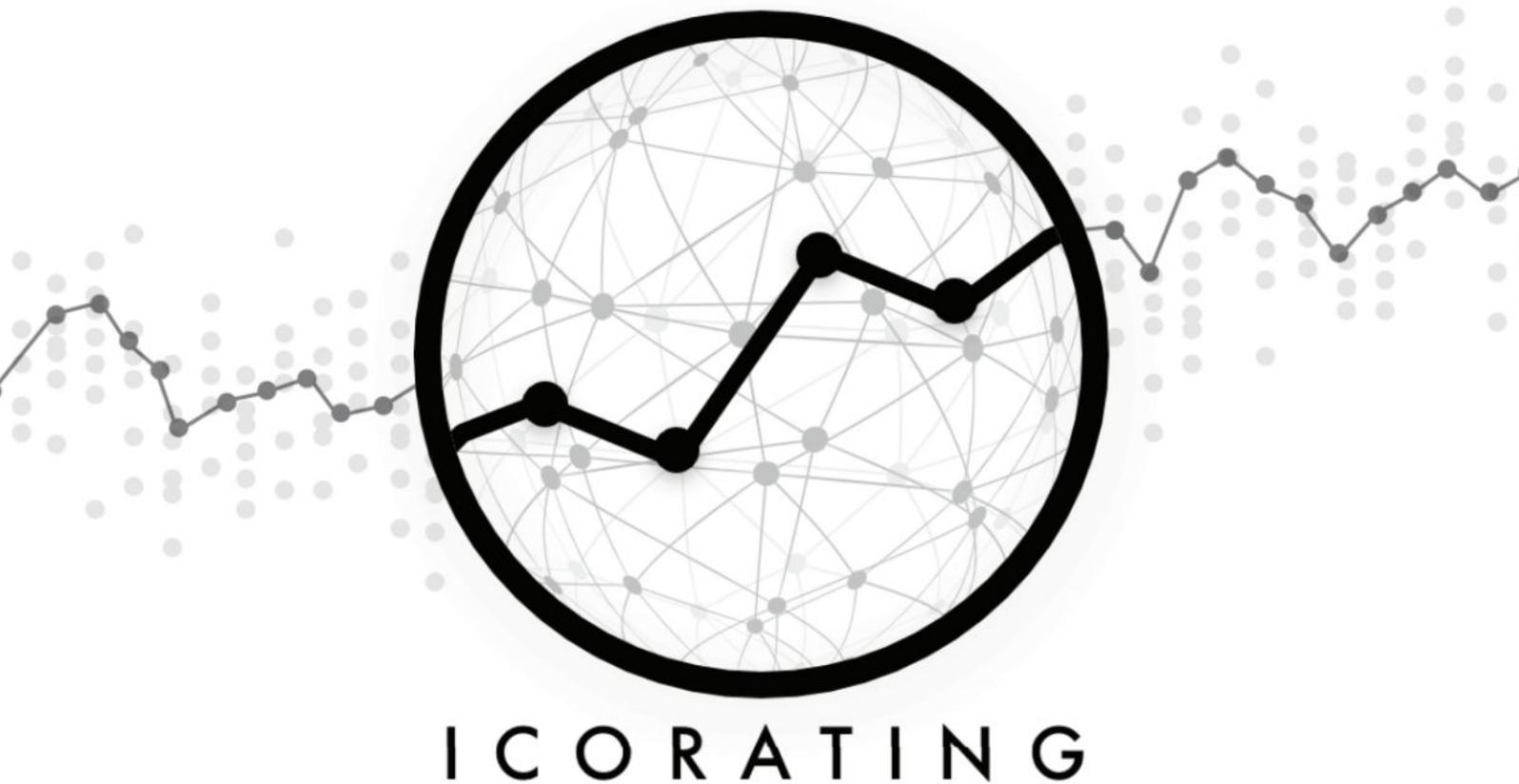


ICOrating

Cajutel Rating Review (<https://cajutel.io/>)

ICO dates (18.08.2017 — 18.09.2017)



I C O R A T I N G

Web: icorating.com

Email: info@icorating.com

Twitter: [@IcoRating](https://twitter.com/IcoRating)

1. Ratings	4
2. General information about the Project and ICO	5
3. Project services and their usage	7
4. Engineering solutions	8
5. Development strategy and Roadmap	10
6. Market Review	11
7. Team	14
8. Marketing strategy	16
9. Competitive Advantages of the Project	17
10. Risks of the Project	18
11. Economy of the Project	19
12. Investment highlights of the token	20

1. Ratings

We rate the Cajutel project at “Risky+”. It does not mean the project is bad quality, but it means there are independent risks that ought be taken into account. We recommend token purchase for high yield investors taking income in US dollars. It is better to take part in the ICO towards the end, to minimize risk of insufficient capital raised by the crowdsale.

Cajutel is a project aiming to establish a telecommunications company in Guinea and Guinea Bissau. The founders are experienced professionals; they planned the concept and its technical solutions in detail. They examined and understand the regional character well; the project can be marked as the best example of current ICO companies.

The main problem with Cajutel is that it has not planned its ICO well; they began their crowdsale too early, and there are risks the ICO will fail because of poor marketing.

There are legal problems that can cause additional risks for investors. According to current legislation, tokens differ from a security or a business share. However the founders give their tokens the rights of share ownership. They sell company shares using smart contracts. You should take this into account if you decide to buy Cajutel tokens.

The founders have a financial plan for the next 6 years, which is a positive point. If the financial plan is implemented, we evaluate the project fair value at \$125 million. This means that the token dollar price will increase by 244%. Dividends are not included. We made these calculations using a 20.5% discount rate.

So, if you agree to bear the risks described below, we recommend that you invest in Cajutel tokens in the long run.

2. General information about the Project and ICO

Cajutel is a project aiming to establish a telecommunication company providing mobile and 4G LTE Internet services in Guinea and Guinea Bissau. They intend to use solar powered equipment. They are issuing tokens, which the founders assure us are share certificates. Holders have company share ownership and have the right to vote in shareholder meetings. At the time of writing the company do not have the particular license required for business activity in Guinea Bissau, but the founders assure us they have already agreed the necessary legal items with the government. The agreement draft is available to read.

Company: Cajutel Sarl, Guinea Bissau[2]

Smart contracts platform: Blockchain Ethereum

Token: CAJ

Pre-ICO: not foreseen

ICO Start: August 18, 2017 08:30 UTC

ICO Close date: September 18, 2017 08:30 UTC

Total issue: 1 780 000 CAJ; 720 000 CAJ – available for sale at ICO. 60 000 CAJ – for future marketing campaigns, 1 000 000 CAJ – distributed among team members.

Minimal target: 41,250 ETH. The founders do not say what will happen if they do not raise the minimal target.

Maximal target: 121,250 ETH

Currency: ETH

ICO Price: 1 CAJ = 0.2 ETH (without bonuses)

The foreseen Bonus Program is limited only by the ICO time bounds:

Phase 1	10'000 Shares/Tokens	sold at 0.05 Ether (75% Discount)
Phase 2	10'000 Shares/Tokens	sold at 0.075 Ether (62.5% Discount)
Phase 3	100'000 Shares/Tokens	sold at 0.10 Ether (50% Discount)
Phase 4	200'000 Shares/Tokens	sold at 0.15 Ether (25% Discount)
Phase 5	400'000 Shares/Tokens	sold at 0.20 Ether

All raised capital is planned to be spent on project development. Additional token issue is possible only after token holders' (shareholders) agreement. They do not explain the rules for voting in these circumstances.

3. Project services and their usage

Cajutel is focused on providing the population with cheap and stable mobile Internet in Guinea and Guinea Bissau. It intends to offer a single package for all Guinea Bissau and Guinea residents. Within the first period the price of the package is \$50 per month. After infrastructure development and increase in numbers of customers, the price will be 9\$ per month. The package includes free calls and messages within the CAJUTEL system plus unlimited traffic. Internet speed access is from 2Mbps to hundreds of Mbps. Calls and messages to other phone providers are liable for additional payments.

If the client signs a two year contract with CAJUTEL, the company gives him a free telephone or CPE. This incentivizes users to change their provider and the company will gain income in the long run.

In future the company can enlarge its range of services with telephony, IP-TV, and other IP based services. These are future opportunities, and the company is not intending to use them at the start of its development.

So Cajutel is a substitute for a traditional fixed network telephone company in the long run.

The founders describe in detail the equipment they intend to use. They are solar energy base stations powered by 4G technology.

Each complete Cell base station will consists of:

- 2.1GHz, 2.6GHz, 3.5Ghz and 5GHz 4G Equipment
- 3 to 16 sectors with 2 transceivers per sector
- 48V Power Supply with battery backup for 72 hours, plus redundant charger and controller. Solar panel to provide the needed electricity.
- Ethernet Switch
- Microwave Point to Point links (initially) and later fiber to the tower.

Picture of typical cell equipments used in 3.5 and 5GHz bands



4. Engineering solutions

Smart contracts are developed in Open Source mode. Source codes are published on the GitHub repository.

The author of the publications is CEO Andreas Fink. He has published the smart contract code. There are no more publications at the time of writing.

5. Development strategy and Roadmap

After its ICO the Project intends to install the first six radio towers between Bissau and Banjul. The construction is planned for October 2017. Every two months after this they will install two more towers. In December of 2017 Cajutel begins selling packages and providing services to clients.

After the first financial year, in 2018 the General Assembly of Shareholders will decide on dividend distribution. The first dividends are paid as for 2020 financial year.

You may read the full Financial Plan. Cajutel has planned its financial model for the next six years. There is an Excel document detailing this. Our conclusion is in the 'Economics of the Project' section.

6. Market Review

Telecommunication markets in Guinea and Guinea Bissau are underdeveloped compared with the developing and developed markets of Europe, North America and Asia. According to Information and communications technology (ICTs) research data by the International Telecommunication Union, Measuring the Information Society Report 2016, the telecommunication markets of Guinea and Guinea Bissau are ranked 165 and 173 in the developing ranking list (table1). We can conclude the ICT Development Index (IDI) is low due to absence of the infrastructure necessary for these services, and because of relatively low qualification of those who use ICTs and provide ICT services (tables 2 – 4).

Table 1. IDI rankings and values, 2016 and 2015

Economy	Rank 2016	IDI 2016	Rank 2015	IDI 2015
Guinea	165	1.72	166	1.57
Guinea-Bissau	173	1.38	171	1.34

Table 2. IDI access sub-index rankings and values, 2016 and 2015

Economy	Rank 2016	IDI 2016	Rank 2015	IDI 2015
Guinea	161	2.57	162	2.41
Guinea-Bissau	164	2.41	165	2.29

Table 3. IDI use sub-index rankings and values, 2016 and 2015

Economy	Rank 2016	IDI 2016	Rank 2015	IDI 2015
Guinea	163	0.62	164	0.42

Guinea-Bissau	175	0.12	172	0.12
---------------	-----	------	-----	------

Table 4. IDI skills sub-index, rankings and values, 2016 and 2015

Economy	Rank 2016	IDI 2016	Rank 2015	IDI 2015
Guinea	165	2.19	165	2.19
Guinea-Bissau	170	1.87	170	1.87

As a result, the low ICT development level in Guinea and Guinea Bissau gives many opportunities for development of the company in these regions. Cajutel is ready to invest in infrastructure and raise quality of services at competitive prices. The Broadband Commission for sustainable development carried out special research in the region, published and titled «The State of Broadband: Broadband catalyzing sustainable development». Their results show that Cajutel is in with a good chance of success. Results for efficiency of internet usage are as follows – 4.7% and 3.5% in 2015. Fixed broadband is 0% and 0.1% in 2015. Mobile broadband – 13.9% in 2015 for Guinea) (Table 5). In addition prices are high and services are generally of poor quality. In 2015 in Guinea and Guinea Bissau, Mobile-cellular sub-basket was \$5,43 and \$12,33 (Table 6); Mobile broadband (prepaid handset-based, 500 MB) - \$3.34 and \$58.33 (Table 7); Mobile-broadband (postpaid computer-based, 1 GB) - \$9.35 and \$58.33 (Table 8).

Table 5. Use indicators

Economy	Percentage of individuals using the Internet		Fixed-broadband subscriptions per 100 inhabitants		Active mobile broadband subscriptions per 100 inhabitants	
	2014	2015	2014	2015	2014	2015
Guinea	1.7	4.7	0.0	0.0	10.8	13.9

Guinea-Bissau	3.3	3.5	0.1	0.1	n/a	n/a
---------------	-----	-----	-----	-----	-----	-----

Table 6. Mobile-cellular sub-basket, 2015

Rank	Economy	Mobile-cellular sub- basket			Tax rate included (%)	GNI p.c., USD
		As % of GNI p.c	USD	PPP\$		
167	Guinea	13.87	5.43	11.76	18.0	470
177	Guinea-Bissau	26.91	12.33	30.38	15.0	550

Table 7. Mobile-broadband prices, prepaid handset-based, 500 MB, 2015

Rank	Economy	Mobile-broadband, prepaid handset-based (500 MB)			Tax rate included (%)	GNI p.c., USD
		As % of GNI p.c	USD	PPP\$		
147	Guinea	8.53	3.34	7.23	500	470
178	Guinea-Bissau	127.27	58.33	143.68	1,024	550

Table 8. Mobile-broadband prices, postpaid computer-based, 1 GB, 2015

Rank	Economy	Mobile-broadband, postpaid computer-based (1 GB)	Monthly data allowance (GB)	GNI p.c., USD

		As % of GNI p.c	USD	PPP\$		
162	Guinea	23.88	9.35	20.25	3	470
175	Guinea-B issau	127.27	58.33	143.68	1	550

According to the International Telecommunication Union's data, in 2015 in Guinea Bissau the price of services was higher than in Guinea. This points to the fact that infrastructure is different in these countries and business proposals are to be different. But the Cajutel founders state that the economic situation in Guinea Bissau and Guinea are similar; there can be a potential risk when entering the market. In the whitepaper, the authors say that in Guinea Bissau and Guinea «Internet speeds offered are limited to 256kbps (60\$/month)». This is not true! The authors use data dated 2013. These results are out of date. In addition, MTN provides internet in Guinea Bissau and offers 5Gb of mobile Internet for 10 000 XOF. This is equal to \$18,2 as for August 24, 2017. In Guinea, Orange offers 5Gb of mobile Internet for 108 960 GNF per a month, equal to \$12,2. Another provider, Cellcom, offers 5Gb of mobile Internet for 100 000 GNF. They provide 3G+ Internet with a speed of 2,5 Mb/s. So, the founders are planning to offer an expensive package, which could cause the project to fail. Another risk is a seemingly poor knowledge of the actual market state.

7. Team

There are only four members in the Cajutel team. The company registered its own account on LinkedIn, where they list 5 members.

Andreas Fink ([LinkedIn](#), [Github](#)) – CEO. Andreas is an expert in telecommunications with proven experience. There is much information about him in official publications. There you can read about how he gathered sponsorship capital for Wikileaks in 2011, with the help of DataCell Island Company where he is a founder and CEO. This experience is described on the Cajutel website as well. The company was disconnected from the Visa and Master Card systems. Later they recovered cooperation with these payment systems. At that time Andreas was a shareholder of eight companies:

- SMSRelay AG, Switzerland, a SMS Wholesale provider, (100%) – the Basel Company developed SMS solutions for mobile providers;
- Fink Consulting GmbH, Switzerland, Telecom and IT Consulting and Resale (100%) – the Basel telecommunication Company, wound up in 2014;
- Alisanus GmbH, Switzerland, Management Company (100%) – It was established in 2010 in Basel. It is developing technological solutions for telecommunication industry;
- BebbiCell AG, Paging Operator, Volp operator (40%) – It is a start-up company. Firstly it was established as a virtual mobile provider. Currently it is a part of the Forsage Group. Andreas has not had a share in the company since 2010.
- Smart Telecom Ltd. UK company, (100%) – we did not find absolute similarity.
- IceCell Inc., US company, (100%) – telecommunication company.
- Global Networks Switzerland AG, (100%) – telecommunication company. Wound up in 2011.
- BebbiCell Inc. US company, (100%)

Andreas lists the above mentioned companies on his website, LinkedIn, and Angel. Besides that, there is the information that he is a founder of PingNet and Backbone ehf Internet providers. He has worked for Cisco Systems as well.

We contacted Andreas during the writing of this review and he answered all questions promptly.

David Vine ([LinkedIn](#)) – CTO. There are few official publications where there is information about David. They are publications connected with this project and on LinkedIn. According to available information he has been working in West Africa (Senegal and Guinea Bissau) for different telecommunication companies. We did not find any negative information on him.

Anita Locika ([LinkedIn](#)) –Procurement Manager at Cajutel Inc. Anita has worked for Andreas Fink on different projects. The information is proved. Anita is an expert in sales and marketing.

Sachin Bhargava ([LinkedIn](#)) – Project Manager (ICO). Sachin has wide experience in the field of project management. We have found evidence of Sachin's work for EcoEnergy (photo is available).

8. Marketing strategy

ICO marketing is badly planned, and is the weakest aspect of the project. There is little information in official online publications. There is some information on blockchain community websites.

Cajutel is not planning a Bounty Program for ICO. The budget for future advertising and remuneration is 60 000 tokens (shares).

On the website there are some reference links to social networks and official channels of the project. They are given at various places on the site. It is not easy to use them; several channels have been launched less than one week before the ICO starts. They have a channel on Telegram ; comments are forbidden here. There are 7 followers. The project has published 12 posts on Reddit; there are 8 comments - one is made by a user, others by authors and moderators. On the Bitcointalk discussion thread there are 8 posts from users which were read 1450 times. There are no materials on the Facebook page which has 7 followers. Twitter feed has 183 tweets and 2112 readers, with no feedback.

Cajutel analyze their competitors using outdated data. They talk about the small number of competitors, and about expensive and bad quality existing services (low speed). They describe the market as empty, but are using evidence dated 2013; they do not discuss competitors that began trading after this date. They intend to attract attention with incentives for customers signing 24 month contracts. This contract price is \$1200. (\$50 per month). We should point out that the average monthly salary of the countries' residents is \$69, but the founders say their target customers are representatives of small and medium scale enterprises. Talking about advertising, they rely on "jungle telegraph". They think people will tell each other about free handsets. They intend to publish adverts in local newspapers, and will have their own shops to sell their services. Partners' shops will sell their services as well.

9. Competitive Advantages of the Project

The authors show their competitive abilities on the basis of information dated 2013. As mentioned they intend to charge \$50 monthly for their service. Later in the period of the financial plan this decreases to \$9. Current 5GB Internet package service price is about \$12 in Guinea and about \$18 in Guinea Bissau. The domestic mobile service provided by Orange is 7-8 GNF per second within the system and 10-11 GNF for calls to other providers. So 5 hours on the phone for Orange clients costs \$20 in Guinea. Therefore Cajutel prices are not competitive in Guinea; their services are more expensive than the current providers' ones. In Guinea Bissau the domestic mobile service provided by MTN is 65 XOF per minute. So 5 hours on the phone and 5GB Internet package for MTN clients cost \$53 in Guinea Bissau. Cajutel prices will be competitive there.

Cajutel say the Internet speed provided by their competitors is limited to 300 kbps, which is not true! Orange, Cellcom, and MTN are developing 3G+ technologies in Guinea with a speed of several Mb per second. These companies have not announced plans for 4G and LTE in Guinea, but MTN is developing 4G technologies in Bissau. Cajutel intends to provide 4G and LTE Internet in both countries. If they provide LTE and unlimited Internet at 100 Mbps for \$9 per a month, even only in large cities, they will be the market leader.

10. Risks of the Project

Firstly, it should be noted that in fact the project is a technological start-up company in Africa. It is one of the most unique regions in the world; there are many factors that can interfere with the project launch. Namely: population poverty, economic defaults, gangsters, and corrupt practices domestically. Crypto investors cannot foresee and hedge these mentioned potential embarrassments. They can only rely on the founders' knowledge and prevention of these risks.

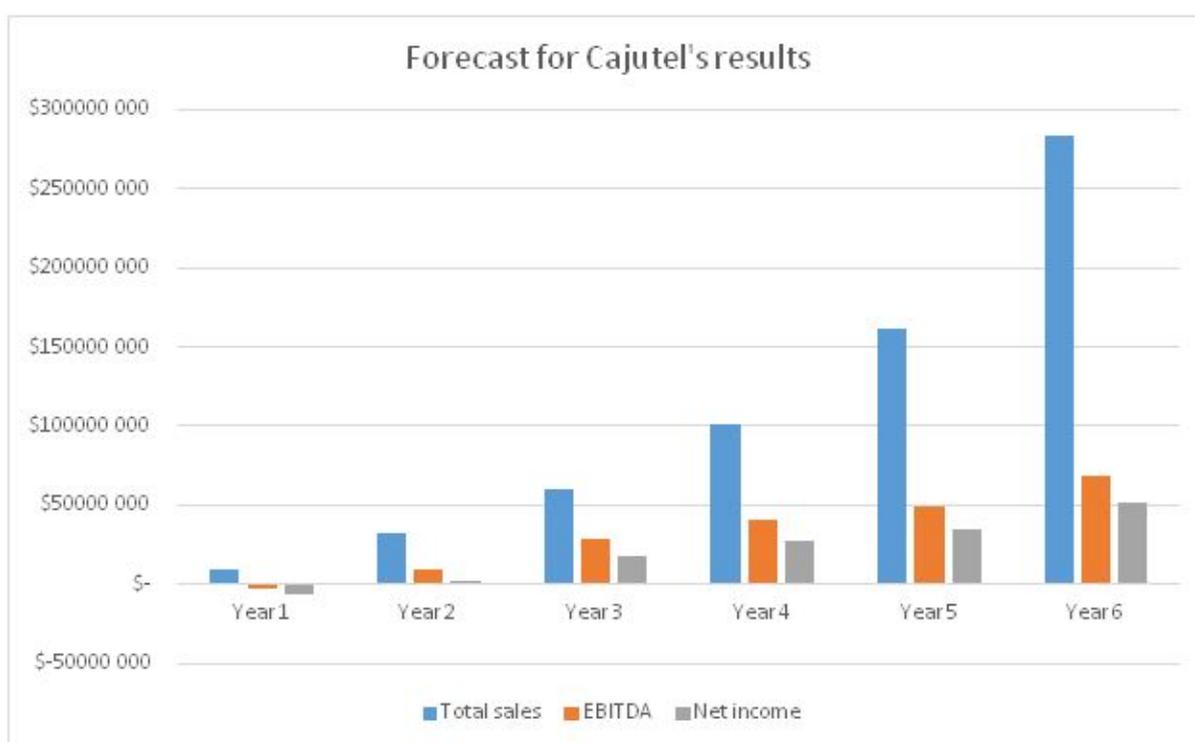
It is a negative point that there are discrepancies in the information concerning the Guinea Bissau and Guinea telecommunication market state given by the founders, and information sources researched by us.

Mass media is not interested in the ICO. There is little information about the crowdsale in specialized channels. There are risks for early buyers; if the project does not raise the hard cap they will not have opportunity to enlarge the business. If the project does not raise the minimal amount for launch in Guinea Bissau, only the investors lose their money. There is no information in the documentation as to whether the founders intend to return money to investors in the case of ICO failure.

More possible risks are described below.

11. Economy of the Project

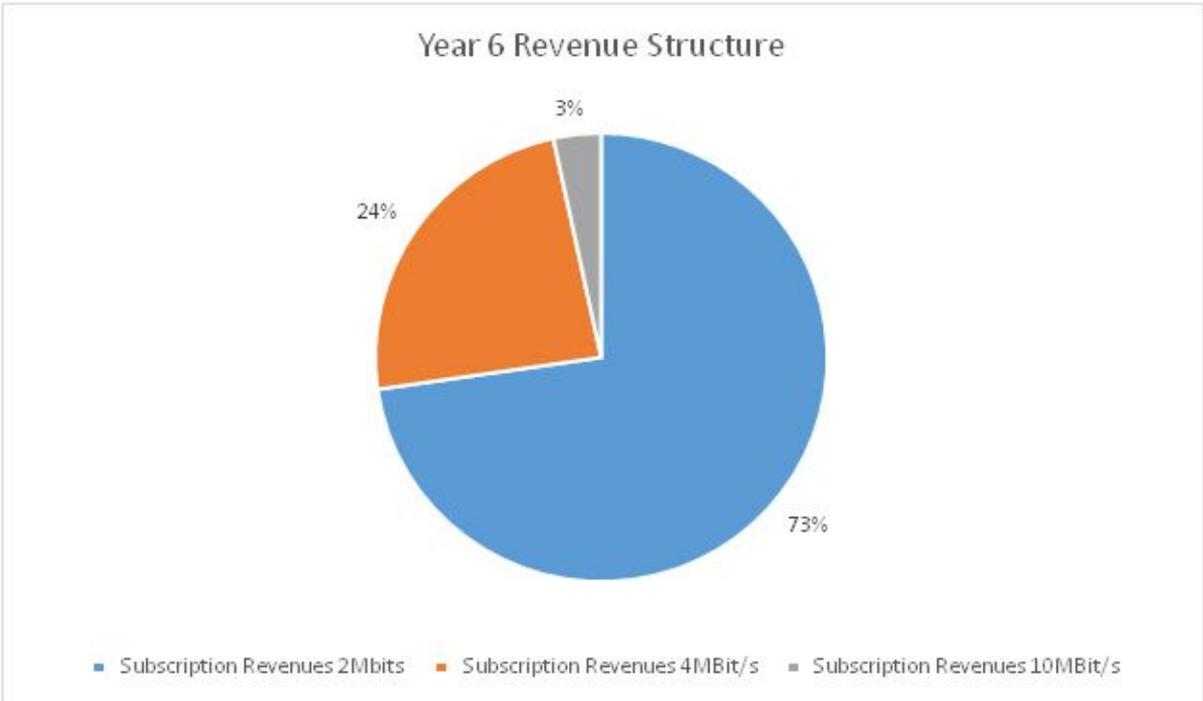
Cajutel planned and disclosed its financial model clearly and in detail. Such accuracy can be explained by the fact that the members of staff work in the real market economy. The project is also concerned with the real market sector; it is not an IT start-up company. This is a positive point for the project. We believe that in the near future, ICO companies will be obliged to plan and explain their financial models more accurately and clearly.



Cajutel state in their documents for investors, that they will offer a single service package. According to information given in the financial model, revenue will be generated from three sources:

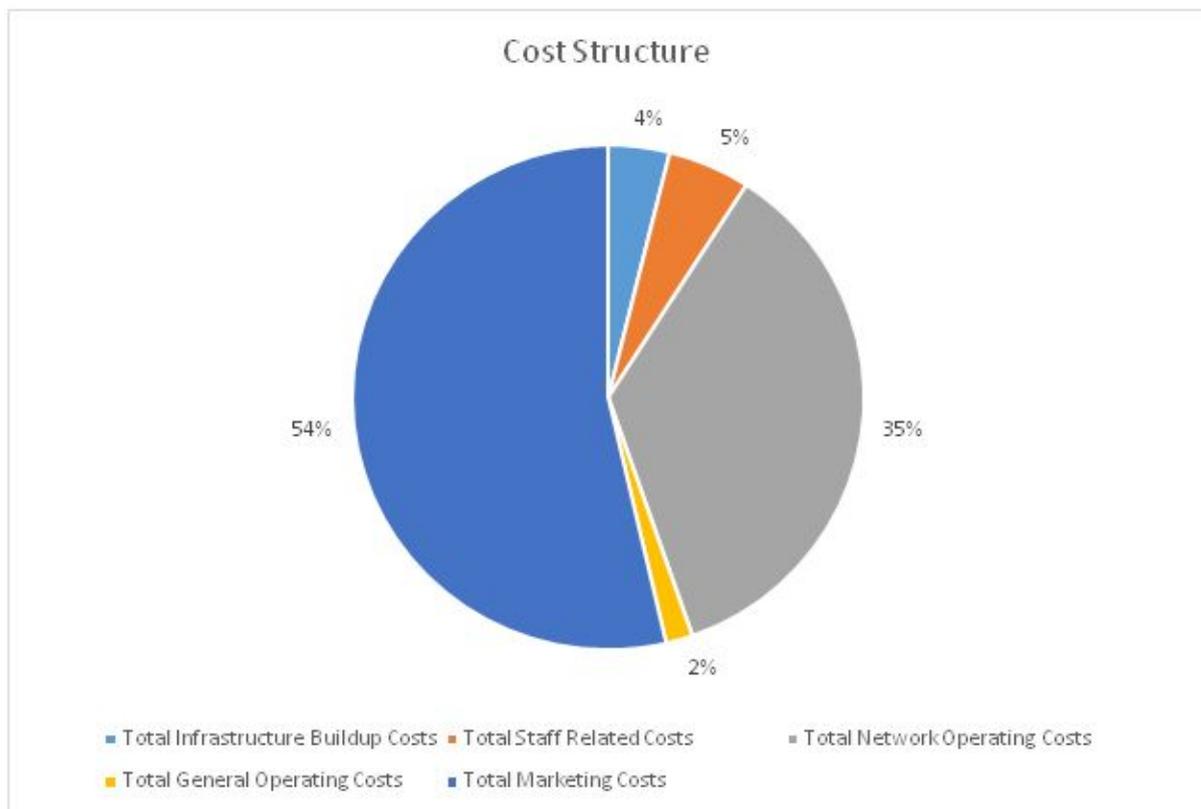
- Subscription Revenues 2Mbits
- Subscription Revenues 4MBit/s
- Subscription Revenues 10MBit/s

Year 6 Revenue Structure:



So, the main income is generated from 2Mbit Users, via a retail service for the population. According to the financial model, by the end of the 6th year, in Guinea Bissau the company will have 2175 thousand clients, and in Guinea - 123 million clients. This is 12% of the Guinea Bissau population and 10% of Guinea's population according to data from the World Bank.

By the end of the 6th year, costs are 79% of the revenue. The cost structure is as follows:



Infrastructure building costs are the largest part of costs. Total Cajutel CAPEX of this 6-year period is \$85.7 million, where 35-50% can be covered by the funds raised in the ICO. This depends on ETH/USD ratio however, and is implemented only in the case of 100% of the tokens being sold. Another part is covered by operating cash flow. Alternatively, Cajutel launch only in Guinea Bissau; for this purpose the necessary ICO raised capital is \$12 million. According to our calculations, taking into account the Cajutel financial model, the CAPEX for this minimal plan's implementation is at least \$23.3 million.

We have the detailed Cajutel financial model. The tokens are considered to be shares. The project is part of the real economy sector, so we decided to calculate the intrinsic value of Cajutel's project, taking into account discounted cash flow.

We wish to point out that:

- We used the given Cajutel Financial Model and our calculations at our discretion;
- Cajutel will get positive Free Cash Flow within the 3rd year;
- It was very difficult to evaluate the discount rate relevant to this region. We took into account the fact that Guinea Bissau's external debt/GDP ratio is one of the largest in the world, and the largest one in Africa. We took into account ANGOLs – Eurobonds – the most marketable dollar non-defaulted sovereign Eurobond in Africa, to calculate indicative

discount rate. They are listed at YTM=8.2% per year. We increased this rate by 2.5 times to evaluate the indicative intrinsic value of the Cajutel project. So, WACC = 20.5%. We believe this shows relevant risk for the dollar investor in the project. We took into account current interest rates in dollar regions.

Intrinsic value of The Cajutel Project taking into account Discounted Cash Flow:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
NOPLAT	\$ -5 899 755	\$ 2 406 360	\$ 18 072 002	\$ 27 859 725	\$ 34 566 546	\$ 51 118 603
Amortization	\$ 3 434 485	\$ 6 690 484	\$ 8 385 695	\$ 9 648 119	\$ 10 322 370	\$ 10 673 786
CAPEX	\$ 22 273 600	\$ 13 382 400	\$ 13 382 400	\$ 13 243 000	\$ 11 709 600	\$ 11 709 600
Working cap	\$ 5 306 083	\$ -4 026 922	\$ -1 279 160	\$ -	\$ -	\$ -
FCF	\$ -30 044 953	\$ -258 634	\$ 14 354 458	\$ 24 264 843	\$ 33 179 315	\$ 50 082 788
WACC	21%					
	0	1	2	3	4	5
DCF	\$ -30 044 953	\$ -214 634	\$ 9 885 820	\$ 13 868 080	\$ 15 736 902	\$ 19 713 025
DCF + FV	\$ 125 105 336					

Under the Cajutel financial model, the intrinsic value of the Cajutel operating cash flow is \$125 million. It is 4 times more than the company value at ICO stage.

12. Investment highlights of the token

In the whitepaper, the Cajutel founders calculate the token's future price. According to their calculations, in 6 years the token will be worth \$300 - \$772. At the same time, token holders will have dividends at \$52. They made their calculations under the examination of telecommunication companies. According to these calculations, the analogues are listed at 8-20x EBITDA. They reference AT&T. Currently, this is evaluated at 6,6 EBITDA NTM. It is noted that the average market multiplier value is 6,7x:

RELATIVE VALUATION >			
	T		Peers
	LTM 22-Aug-17	NTM 22-Aug-17	NTM
PE	17.66	12.59	16.00
EV/EBITDA	6.81	6.56	6.69
Div Yield	5.22%	5.29%	1.54%
EV/Sales	2.16	2.16	1.99
P/CF	5.87	5.63	6.52
P/B	1.85	1.81	2.25

Source: Reuters

We believe the founders have overestimated the value. It should be lower than AT&T, taking into account the regional discount. It is not right to compare businesses in USA and Guinea.

In the case of a full ICO allocation, the Cajutel token volume-weighted average price is 0,17 ETH. This is \$50 at time of writing. We have evaluated the Cajutel business at \$125 million; this is agreed with the token fair value at \$173. So, 6-year potential revenue is 244%, without dividends. If we take into account the dividends foreseen by Cajutel, it is 347%. The average revenue is 41% and 58% per year; this is profitable for dollar investors. For these dollar investors, we can recommend participating in the Cajutel ICO. But they should take these possible risks into account if they buy the tokens:

- the Cajutel founders discuss dividends in the whitepaper, but they do not explain their share dividend policy;
- the Cajutel tokens are company shares, theoretically; in practice this is not legally binding.
- we question the token's marketability in future because of potential low issue amounts;
- after Howey testing, the Cajutel tokens bear the mark of securities.

The information contained in the document is for informational purposes only. The views expressed in this document are solely personal stance of the *ICOrating* Team, based on data from open access and information that developers provided to the team through Skype, email or other means of communication.

Our goal is to increase the transparency and reliability of the young ICO market and to minimize the risk of fraud.

We appreciate feedback with constructive comments, suggestions and ideas on how to make the analysis more comprehensive and informative.