

Piccolo Research

Independent research on blockchain startups and ICO's

An independent review of Elrond (EGLD)

28 Dec 2020 - Lennard Neo, CFA

(with assistance from Adrian Siegwart)

Powered By:

ASTRONAUT | CAPITAL

ELROND (EGLD)

Buy

Target Price: **\$68.24**

(212% upside)

Maiar to fuel Elrond's explosive ecosystem growth

Company Overview

Elrond has created a novel architecture through two key innovations; 1) adaptive state sharding technology and 2) Secure Proof of Stake (PoS) consensus. This protocol will enable a scalable ecosystem embedded with interconnectivity while maintaining the decentralization, security and fairness features of a public blockchain.

Since our [last report in Jan 2020](#), Elrond hit significant milestones throughout the year with the launch of Elrond mainnet (>80,000 accounts created with over 1.2m transactions), releasing a new token economic model (1,000 ERD = 1 EGLD), and surpassing our prior price target to achieve 750%+ returns for the year (after rebasing).

Concept

MVP

Established

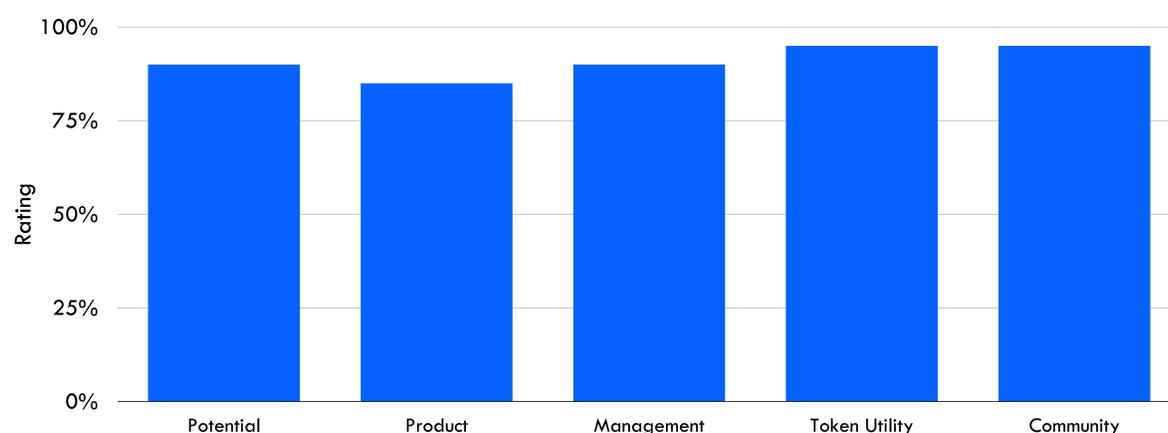
Report Highlights

It has been a successful year for Elrond as they achieved many milestones, gaining a foothold amongst the top-tier large cap projects. Re-visiting our analysis, we want to update our thematic views and identify a potential price target for Elrond going into 2021.

In this report, we highlight the important developments in the Elrond Network along with an investment thesis on EGLD.

- Target price of \$68.24, representing an upside potential of 212%
- High staking rewards and upcoming DeFi initiatives as key drivers for EGLD value accretion
- Launch of global payment app Maiar to create significant tailwind for widespread adoption and growth

Birds-Eye View



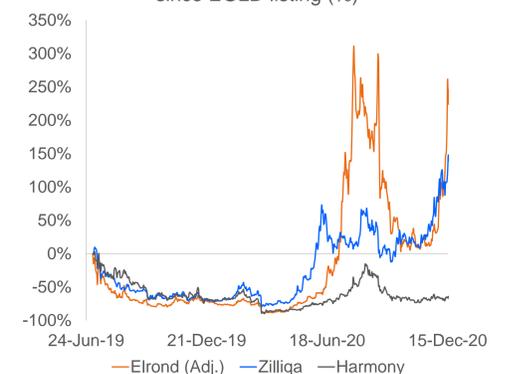
General

Ticker:	EGLD
Price (27 Dec 2020)	\$21.86
1y price range	\$6.93 – \$28.23
1y Daily Avg Trading Volume	\$23.2m
Circulating Token Supply	14.96m
Market Cap (27 Dec 2020)	\$346m

Platform

Token Type	Utility
Sector	Protocol
Regional Focus	Global
CEO	Benjamin Mincu
Website	Click Here
Explorer	Click Here

Daily Cumulative Returns since EGLD listing (%)



Source: Coingecko

Thematic Views

1. Elrond well-positioned to capture more market share among layer 1 protocols

Blockchain scalability has been a bottleneck for major blockchains such as Bitcoin and Ethereum, which currently achieve around 3-4 tps and 15 tps, respectively. Their centralized counterparts, such as VisaNet, accomplished a throughput several orders of magnitude higher, leading to a host of new projects entering the space to solve this barrier to mainstream adoption.

Ethereum, the most used blockchain in the world, settles more than \$1 trillion in transactions and hosts \$100 billion in assets. However, in its current form, Ethereum is not capable of serving as a global, decentralized infrastructure. The DeFi boom this past summer has demonstrated this quite clearly: heightened on-chain activity clogged the network and increased gas fees to an unsustainable level for most usages. The ongoing ETH 2.0 network upgrade is much needed to alleviate these issues. However, with basic transaction functionality expected to be about two years away still, ETH 2.0 cannot be the scaling-solution in the short-term. This leaves plenty of opportunities for low-fee, high-throughput competitors, such as Elrond, to challenge Ethereum's monopoly.

As Metcalfe's law posits, a network's value grows exponentially with the number of its users. Adoption thus becomes a paramount metric to evaluate new projects and can be proxied by community engagement statistics. Elrond has managed to create a vibrant ecosystem of users, developers and partnerships and is actively collaborating with other projects to develop new features. It has become the preferred infrastructure provider for high-throughput applications, such as Orion Protocol or PlotX.

As Elrond's co-founder and CEO, Benjamin Mincu, [rightly points out](#): "Through its design and implementation, Elrond lays the foundation for a new solution space in which the barriers to what's possible are no longer technical. The googles and amazons of tomorrow are perhaps one smart contract away"

With their expertise in marketing and community management, they keep their users engaged and since our last report, their community has become one of the largest among Layer 1 blockchains.

Comparison of Community Engagement Statistics for Comparable Layer 1 Projects

Name	Telegram	Twitter	Medium	Facebook	Total
Elrond	21,100	106,500	2,800	8,200	138,600
Cardano	16,500	326,500	300	5,200	348,500
Polkadot	19,300	79,700	3,200	1,200	103,400
NEAR	7,800	33,400	1,000	500	42,700
Algorand	9,300	43,700	2,100	700	55,800
Quarkchain	19,800	63,600	4,900	10,000	98,300
Hashgraph	8,000	42,900	2,500	9,000	62,400
Harmony	10,600	79,200	2,000	2,000	93,800

Elrond Community Engagement Statistics

Channel	% Change	Current	Prev. Report
Telegram	67%	21,100	12,600
Twitter	458%	106,500	19,100
Medium	33%	2,800	2,100
Facebook	154%	8,200	3,230

The Elrond mainnet is only 140 days old and has already surpassed 1.2 million transactions from 80,000+ accounts. For comparison, Hedera Hashgraph, which launched its mainnet in September 2019 has about 81'000, Polkadot around 56'000 and NEAR around 6'000 active accounts (wallets).

While initial adoption is crucial in the bootstrapping phase, without superior features, users wander off. Elrond has shown robust execution capabilities and is well on track to deliver on its goals set out in its roadmap. According to data from Flipside Crypto, **Elrond ranks as the top 20 blockchain project in terms of developer activity**, furthermore, Coingecko suggests [Elrond ranks number 1 worldwide for the last 4 weeks in terms of github activity](#). All these underscores the team's strong delivery capabilities.

Elrond's many technical advantages further differentiate it from major Ethereum competitors that have recently sprung to life. Its high-performant [Virtual Machine \(VM\) Arwen](#) can be used with all major programming languages and is one of the fastest VMs in the blockchain space. A rich toolset makes [Elrond's technology easily accessible](#) to developers and comprises among others a dApp boilerplate, the Elrond IDE for Visual Studio Code, rich APIs and the Rust Smart Contract framework.

Virtual Machines (VM) comparison

Project	CPU Calculate (8000)	Fibonacci (32)	String Contact (10000)
Elrond	3.9 ms	16 ms	6.7 ms
EVM	91 ms	8250 ms	2173 ms
Polkadot	220 ms	832 ms	380 ms
Lua Code	6.31 ms	467 ms	367 ms
EOS Binaryen	3.31 ms	5480 ms	313 ms
EOS wavm	10.25 ms	536 ms	96 ms
IOST V8VM	6.21 ms	42 ms	9 ms

2. Lucrative staking yields, coupled with DeFi initiatives could lead to EGLD supply shock

In Proof-of-Stake networks (PoS), the network's security and consensus depend on validators' economic stakes. Elrond's validators are rewarded for their contribution, which is initially paid from the inflationary supply. The team has adapted its economic model at mainnet launch, renaming the token from Elrond (ERD) to eGold (EGLD). The idea is to simplify and enhance communication, immediately conveying the notion of value.

More importantly, the supply, previously growing at 5% per year with no maximum cap as in other networks, is now capped at a theoretical maximum amount of 31,415,926 EGLD. The change has reinforced the concept of scarcity, and as adoption increases, inflationary rewards will be substituted with transaction fees, ensuring that the max supply will not be reached and could only become smaller (see the [EGLD economics paper](#)). We believe the embedded concept, coupled with staking initiatives, will lead to a token supply shock.

To bootstrap the network, Elrond has launched a 4-stage staking campaign:

- Phase 1: Incentivized Delegation Queue (launched on October 14, 2020)
- Phase 2: Validators Queue ([launched on December 1, 2020](#))
- Phase 3: Open Staking (launch expected in January 2021)
- Phase 4: Advanced Staking features

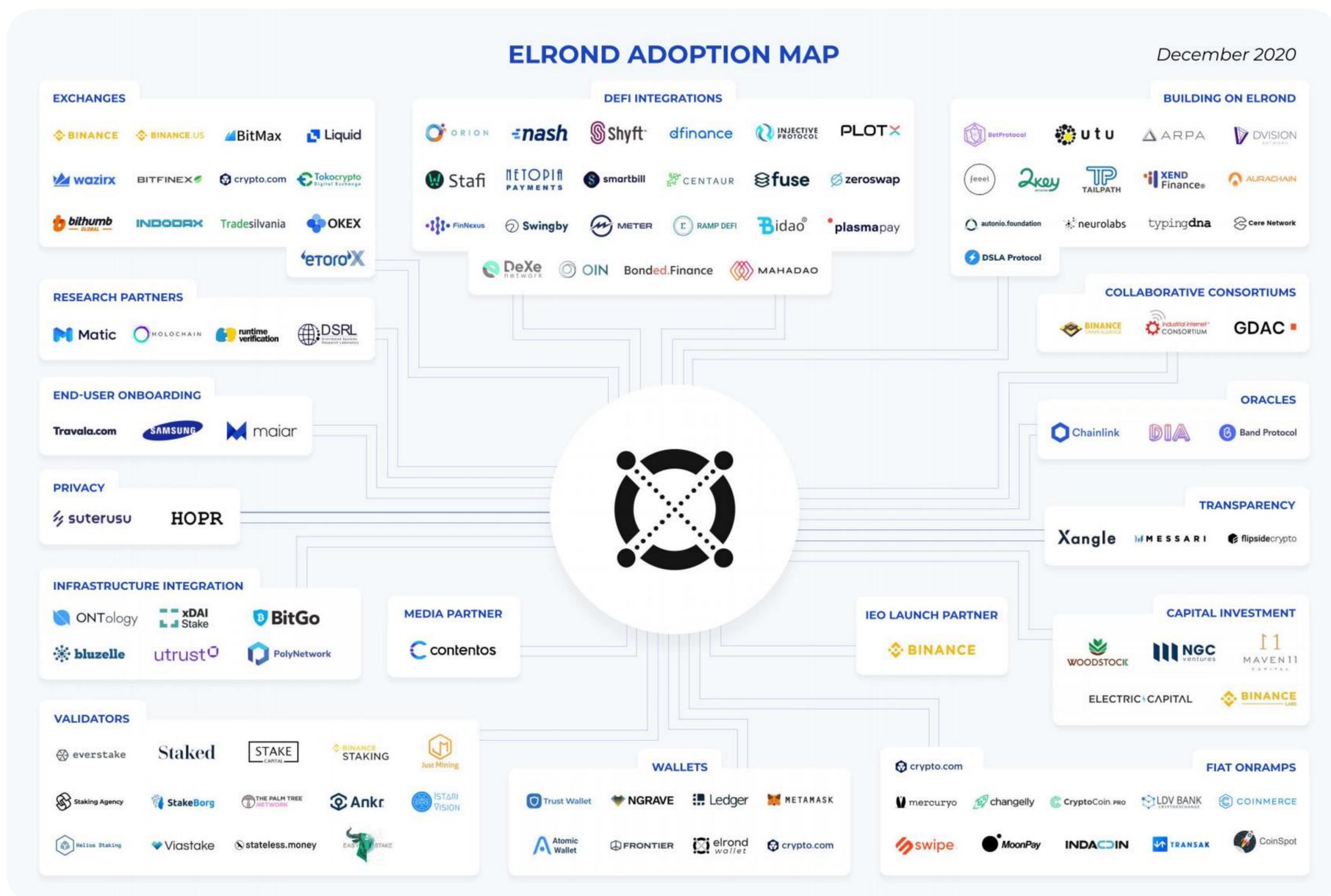
The campaign has progressed well, and approximately 55% of the circulating supply has been staked so far. The third phase is expected to begin in early January 2021, which will allow a higher total number of nodes and a higher amount of EGLD to be staked per node (current limit is 2500 EGLD). Elrond currently offers 29% to delegators, 36% to validator nodes, and up to 20% for those in queues. **The reward options are significantly higher than for other blockchains and combined with the strong demand for staking assets, we expect the effective circulating supply to decrease significantly, thus creating a supply shock.**

Our research suggests that higher staking yield correlates with higher returns and price appreciation is greater, the larger the proportion of tokens staked in the network. Thus, we believe that EGLD has the potential to outperform its peers.

In addition to the attractive yield, staking EGLD is becoming even more appealing with Elrond's partnerships in the DeFi space. One of the most significant collaboration is with [Orion Protocol](#); an aggregation protocol that will bring together liquidity from centralized exchanges and decentralized exchanges on multiple chains, creating a meta-liquidity layer on the Elrond network.

Users will be able to earn Elrond's staking yield, while using the liquidity for other opportunities, either by tokenization of staked EGLD ([STAFI](#)) or via borrowing ([RAMP](#)), thus lowering opportunity costs. Furthermore, EGLD is planned to be used as collateral in the multi-asset backed stable coin BAI, which will be minted as an ESDT token on Elrond in collaboration with [Bidao](#).

Asset	Reward (APY)	Market Cap (\$ mln)
Elrond	29%	324
ETH 2.0	15%	65,300
Polkadot	13%	4,500
Cardano	5%	4,500
EOS	2%	2,700
Tron	3%	2,100
NEM	5%	1,900
Tezos	6%	1,700
Cosmos	9%	1,200
VeChain	1%	1,100
Zilliqa	17%	381
Algorand	7%	252
NEAR	14%	207
Harmony	11%	36



EGLD will also be part of [Bonded Finance](#)'s index basket, which groups altcoins to leverage the capital for more productive use. The decentralized derivatives platform [Injective Protocol](#) and Elrond are collaboratively exploring how Elrond's technology can leverage their trading platform while introducing new derivative products for EGLD.

With several interoperability initiatives underway, Elrond's users will soon be able to interact with other major blockchains such as Bitcoin, Ethereum, NEO, Ontology and Cosmos (via [Poly Network](#)) or use stablecoins and Ethereum-based DeFi contracts on Elrond (via [xDai stake](#)).

Not only will these projects bring a significant number of transactions to the Elrond blockchain and more utility value for EGLD, but will also increase Elrond's presence in the DeFi space.

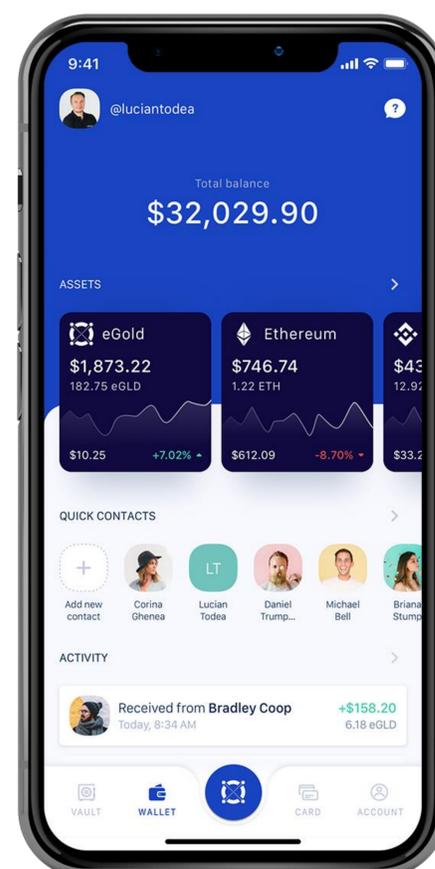
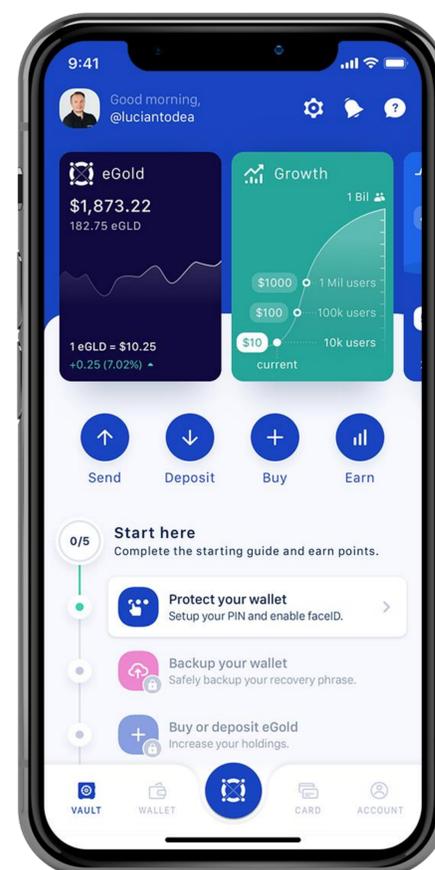
3. Highly anticipated Maiar global payments app to generate significant adoption and launch with 180k+ waitlist users

Interacting with DeFi applications is still challenging for non-technical users and presents substantial barriers to adoption. Elrond is aiming to change that with **Maiar, a highly intuitive, non-custodial payment app** that allows users to send and receive money globally with a simple mobile phone. The Maiar app has been well received by the community, and over 180,000 users have signed up to the waitlist in anticipation for its global launch on January 31, 2021.

Maiar will become the easiest way to interact with the Elrond ecosystem and allow users to buy, store, stake, lend and spend EGLD tokens. Some of the fiat onramps through which EGLD is currently available, such as [MoonPay](#) will be accessible from within the app as well.

The Maiar app stands out from other blockchain wallets, as the onboarding is intuitive and does not require writing down complex 24 words passwords that are unappealing for newcomers. Instead, Maiar seamlessly creates a digital identity with the user's phone number or a chosen username. Maiar is thus becoming a decentralized, privacy-preserving version of popular payment apps such as PayPal or Venmo, with the difference that users are in full control of their funds as they own the private keys.

In a yield-starved world, in which interest on average deposit accounts is zero or even negative, a 29% APY that is easily accessible through an app is definitely a strong selling point and will likely attract more users to engage with the Elrond ecosystem through the Maiar app. We believe that upcoming DeFi initiatives, such as using Ethereum-based stablecoins on Elrond, freeing up liquidity from staked funds or financializing EGLD through derivatives, in combination with the large potential user base onboarded via the Maiar app will create significant tailwinds for Elrond's native token.



Roadmap

Roadmap	Developments	Status
Q4 2019	Battle of Nodes testnet event	<i>Completed</i>
	WASM VM gas model & Solidity integration	<i>Completed</i>
	New Website & Vision	<i>Completed</i>
	Dev IDE, Debugger, Rust SDK	<i>Completed</i>
	Professional staking partners	<i>Completed</i>
	In-depth security audits	<i>Completed</i>
	Elrond Bootstrapping Phase 1: - Pre-staking in 10 waves - 50% of circulating supply staking target - Reach PoS economic security threshold	Completed
Q1 2020	Economic & Governance Model	<i>Completed</i>
	App in Samsung dApp store	<i>Completed</i> , Battle of Elrond
Q2 2020	Native Elrond wallet	<i>Completed</i> , wallet.elrond.com
	Elrond Bootstrapping Phase 2: - Genesis block - Select validator staking program	Completed
Q3 2020	Token Swap: ERD to EGLD conversion	<i>Completed</i>
	DeFi initiatives	<i>In Progress</i>
	Economics v2	<i>Completed</i> , eGold
	Elrond Bootstrapping Phase 3: - Progressive feature activation	Completed
Q4 2020	Elrond Bootstrapping Phase 3: - Smart Contracts - ESDT Token	Completed <i>Completed</i> <i>Completed</i> , Audited
	Staking: direct & delegation	<i>In Progress</i> , <i>Phase 3 upcoming</i>
	Elrond Governance: Voting system	<i>In Progress</i> , <i>Phase 3 & 4 of staking campaign</i>
	Development Toolkit	<i>Completed</i>
	Q1 2021	Maiar launch Maiar: staking, DeFi Decentralized Exchange DeFi 2.0 module Name Service
Q2 2021	DeFi Digital identity	
	DeFi Interoperability	

Valuation

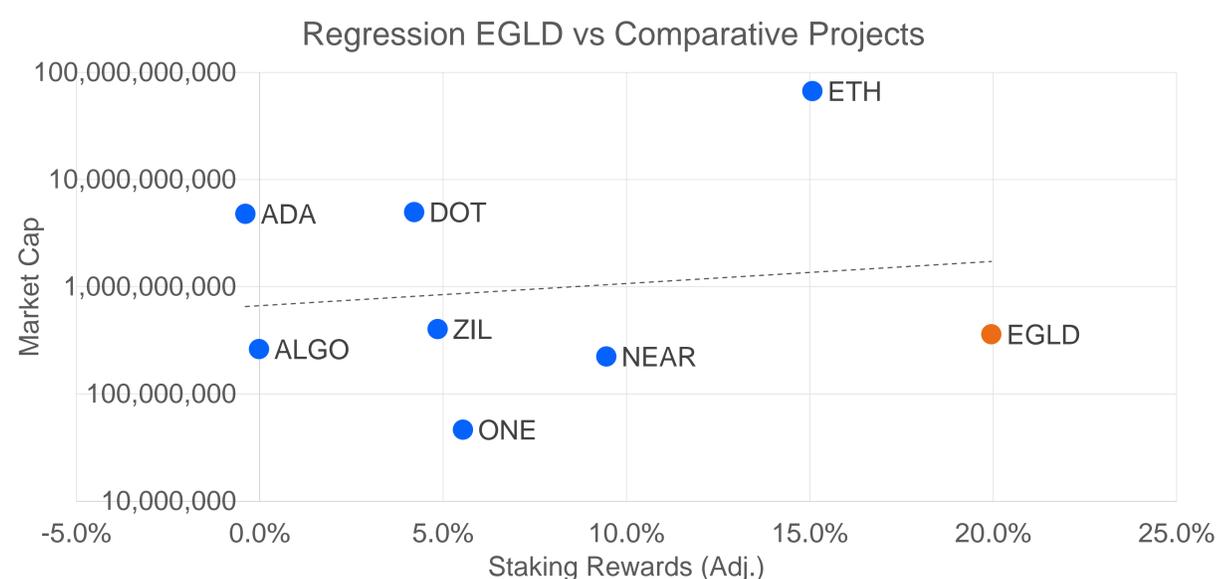
Our research analysts incorporated several assumptions and methodologies to analyze the potential returns of EGLD and to determine its valuation. The two-pronged approach incorporated both a regression model and a relative valuation analysis.

Regression model - Based on staking yields & market cap

Staking yields have dictated bulk of the price action this year, which forms the foundation of our thesis in our valuation regression model.

As discussed earlier, Elrond's staking APY is significantly higher in comparison to its large cap peers. We hypothesize that Elrond should exhibit a bigger market cap given the relationship between staking yields and its valuation. To begin our hypothesis, our analysts conducted a simple regression utilizing market cap and adjusted staking rewards (%). The results obtained imply that Elrond was significantly **undervalued** as shown in the chart below. Based on its current yields, the project should be valued at a market cap slightly above \$1b.

Given positive preliminary observations, we further conducted a multi-regression to include more variables, namely market cap, staking rewards, adjusted staking rewards, and total % staked. Based on the outputs, the model predicted Elrond's market cap at \$1.9b, which puts it in the top 20 rankings among all cryptocurrencies. That market cap places Elrond about 5x from its current value, translating into a price of **~\$128 per EGLD**, which represents a **450+%** upside potential.



Staking Yields & Market Cap for comparative projects

Project Name	Symbol	Market Cap	Reward	Total Staked	Adj. Reward	Score
Elrond	EGLD	324,432,596	29.0%	54.5%	20.0%	70.6%
Ethereum	ETH	67,041,487,309	15.2%	1.1%	15.1%	63.6%
Polkadot	DOT	4,983,814,224	13.3%	66.2%	4.2%	74.3%
Zilliqa	ZIL	403,556,761	17.2%	27.3%	4.9%	67.4%
Harmony	ONE	46,481,393	10.6%	43.5%	5.5%	70.5%
Near	NEAR	224,050,573	14.0%	30.5%	9.5%	70.0%
Cardano	ADA	4,796,722,200	4.8%	55.0%	-0.4%	75.0%
Algorand	ALGO	262,429,841	7.3%	59.6%	0.0%	72.0%

Source: Coingecko, Stakingrewards.com (16 Dec 2020)

Relative valuation model

Our analysts utilized comparable blockchain projects to frame the relative value of Elrond. By deriving the trading volume / market value (Vol/MV) multiple of each projects, we extracted a sectoral average ratio to be used in our analysis. Similar to the regression model, the ratio suggests that EGLD is undervalued with an implied token price of **\$48.32 per EGLD**, which represents a **120%** price upside.

Relative Valuation	Symbol	Circ. Supply	Token price	Market Val	Daily Volume (7d)	Vol/MV multiple	Implied Token Price
Elrond	EGLD	14,889,059	\$21.79	324,432,596	104,475,007	0.3220	\$48.32
Polkadot	DOT	943,131,303	\$5.36	5,055,183,784	206,946,264	0.0409	\$1.51
Zilliqa	ZIL	11,507,559,551	\$0.0391	449,611,054	68,321,938	0.1520	\$0.0409
Quarkchain	QKC	6,392,074,296	\$0.0054	34,588,856	2,490,401	0.0720	\$0.0027
Harmony	ONE	8,670,807,999	\$0.0056	48,633,348	5,519,816	0.1135	\$0.0044
Hashgraph	HBAR	6,389,599,193	\$0.0352	224,803,607	5,597,456	0.0249	\$0.00013
Near	NEAR	223,479,077	\$1.0400	232,418,240	13,568,411	0.0584	\$0.0088
Cardano	ADA	31,112,484,646	\$0.1676	5,215,541,364	675,083,609	0.1294	\$0.1494
Algorand	ALGO	803,088,849	\$0.3395	272,636,618	107,384,117	0.3939	\$0.9207
<i>Source: Coingecko (Figures as of 16 Dec 2020)</i>						Vol/MV Avg	0.1452

Piccolo's Expected EGLD Valuation

Overall, to reduce biasness and limitations of both models, we incorporated a weightage that is skewed towards relative valuation (RV). This comes on the back of limitations of a regression model and its sensitivity to marginal errors, as well as RV reflecting current market behaviour better.

Applying a 75% weightage to relative valuation and a 25% weightage to the regression model, we obtained a **target price of \$68.24 for EGLD**, representing a potential upside of **212%**.

Conclusion

Overall, Elrond has exhibited significant achievements in technology developments, community engagement, and adoption. In addition, the launch of Maiar app represents another milestone, reducing the friction for new users to be onboarded onto their platform. This generates more active users within Elrond's ecosystem and in turn, more demand for EGLD tokens. Our analysts believe that the project is well-positioned for another explosive growth similar to the one described in our prior report, in which Elrond overshadowed our price target by 750%.

Given these key drivers and coupled with our valuation thesis, Piccolo Research believes that EGLD is significantly undervalued, presenting a potential opportunity for yet another outperformance. In light of the preceding, we recommend a **'Buy'** rating on Elrond (EGLD).

About the Analyst

Lennard specializes in fundamental and technical analysis in digital asset investments. He became acquainted with blockchain, cryptocurrency and ICOs in 2016, and recently decided to take a meaningful step away from traditional banking to join this industry. Previously, Lennard spent 3 years with an investment bank in Forex and Debt Capital Markets. Prior to this, he also had entrepreneurship experience working with an e-commerce startup and a local social enterprise. Lennard completed the CFA program and graduated with a master's degree in Applied Finance. He is fluent in English, Chinese with a basic in Korean.

Ratings Definition

Monitor – Continue observation until clarity of information is provided

Sell/ Avoid – Investment is associated with high risk of losing capital

Hold/ Neutral – To maintain current levels of position until the next updated release

Spec Buy – A speculative opportunity for investors with higher risk tolerance

Buy – A high conviction buying opportunity

Disclaimer

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