ETC Cooperative

2019 Retrospective

April 13, 2020

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Background

Many people see ETC as merely a protest coin. Most of the early supporters were indeed defined as "DAO fork objectors" but ETC is much more than "not ETH".   There is a rich philosophy behind Ethereum Classic, which is complimentary to Ethereum.

More than two years ago at ETC Summit 2017, Charles Hoskinson said:

> *Let's talk about philosophy. The first question is "When did we have two Ethereums?" The conventional answer is "We had two Ethereums after the DAO". And the answer is actually "No, we had two Ethereums from the very damn beginning. But we didn't know that."*

> *In the beginning we had two philosophies at the same time. One was this notion of "Code is Law". […]*

> *Then there was this other philosophy. This notion of a "World Computer". This was Vitalik's pet child. He loved this idea. This idea that you could have universal infrastructure. That one day would get rid of Amazon EC2 and get rid of all these other things. And this thing would be this beautiful layer. This computation layer to be added to the Internet. As ubiquitous as BitTorrent or something else and that computer would just work. You could deploy your dapps on it. These types of things.*

> *Here is the fundamental problem. Code is Law and World Computer. These things are philosophically so different they can't coexist at the same time. When you are the World Computer you have to fork a lot. You have to embrace mutability.   You have to have a lot of flexibility in your platform. When you are Code is Law you are like Bitcoin where you set the principles. Whether they are good principles or bad principles you just set them up, live with them and build on top of them. They are like artificial laws of physics in a certain respect. If you are a mountain climber you cannot suddenly say "Boy, gravity is inconvenient to me. It would be so nice if gravity would stop for a moment and give me a break". You can't do it.*

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This is a profound insight which most of the blockchain world has never heard. Today we call those two visions ETC and ETH2. ETC is no longer a "protest coin with no developers".

What is ETC?

- Ethereum Classic is Ethereum technology with Bitcoin philosophy.
- Like Bitcoin, ETC:
    - is hard money, with fixed supply.
    - is truly decentralized.
    - values censorship-resistance and trust minimization.
    - values security and safety over throughput.
    - protocol aims for multi-decade stability.
    - aims for social scalability within the ecosystem.
    - did not have an ICO or premine.
- Unlike Bitcoin, ETC:
    - has rich statefulness
    - has a deterministic Turing Machine bounded by gas (the EVM).

Meh. I only have practical concerns. Why should I care about ETC?

Imagine you could do a time-warp back to 2016 and get all the good Ethereum technology which has been built since then (developer tools, smart contract frameworks, in-production state channels) but "none of the bad things happened".

That is the value proposition of the resurgent ETC protocol in 2020:

- The DAO fork never happened on ETC (aside - the DAO hacker never "exited" with the funds on the ETC chain)
- The ICO mania (and all its chain bloat) never happened on ETC.
- The CryptoKitties chain bloat never happened on ETC.
- ETC can still be full-synced from genesis on a commodity laptop, unlike ETH. There is no "Infura addiction" on ETC.

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- Switching from ETH1 to ETC will be trivial after the [Phoenix hardfork](#) scheduled for June 2020. "Just works". Same exact tools.

History of the ETC Coop

The Ethereum Classic Cooperative Inc ("ETC Coop") was incorporated in the State of Delaware as an LLC on 7th September 2017. The legal entity was converted to a nonstock corporation with the explicitly stated goal of conversion to a non-profit entity in support of the ETC ecosystem. That application was filed with the IRS on 10th May 2018. The ETC Coop was granted 501(c)(3) public charity status on 14th November 2018, retroactive to the date of filing.

Donations to ETC Coop are tax deductible under IRC Section 170 for US taxpayers, both individual and corporate. Enterprises investing in infrastructure or other "public goods" within the ETC ecosystem can do so in a more tax-efficient manner by donating to the ETC Coop rather than investing directly.

Private foundations often fulfill a similar function in other ICO-funded cryptocurrency projects, along with holding ICO funds, trademarks, driving roadmap and other centralized functions.

In that sense, ETC is quite unique (along with Bitcoin) in having none of those centralizing functions. There is no ETC Foundation (very intentionally). There was no ICO for ETC. The abandoned chain we now call ETC was picked up and kept alive by volunteers following the DAO Fork.

Just over a year later the ETC Coop was formed, to provide some much needed (but non-exclusive) funding and support for the ETC ecosystem.

There is nothing "official" in ETC, including the role of the ETC Coop within the ecosystem. The ETC Coop and its staff have no special influence within ETC other than whatever respect our actions have earned. Earning that respect is a "forever process". Any other group of individuals or other legal entity could displace the ETC Coop tomorrow if we cease to be good citizens.

2019 Retrospective

Overview

2019 was an incredibly successful year for the Ethereum Classic ecosystem.

ETC was been broadly seen as "a protest coin with no developers" through 2016, 2017 and 2018. There was not a great deal of development activity in that time span, with the Monetary Policy change in 2017 being essentially the only thing which changed.
Classic Geth actively diverged from upstream Geth, and that divergence was not necessarily positive. The other ETC client, Mantis, from IOHK, was under construction for that entire period and never had any significant number of nodes on ETC mainnet. Classic Geth and Parity

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clients accounted for the majority of nodes.

The narrative only really started changing in December 2018 with the creation of the ETC Labs Core team (now ETC Core) after the disintegration of ETCDEV team, with the following migrations:

- Mr. Meows D. Bits ([@meowbits](#))
- Stevan Lohja ([@stevanlohja](#))
- Shane Jonas ([@shanejonas](#))
- Zachary Belford ([@BelfordZ](#))
- Constantine Kryvomaz ([@r8d8](#))
- ~~Mike Lubinets ([@mersinvald](#) left October 2019)~~

Followed by some top-tier developer talent being attracted to the ETC ecosystem through the early months of 2019, primarily, but not exclusively driven by ETC Labs hiring within the ETC Core team:

- ~~Jake Lang to ETC Core in January ([@jakelang](#) left later)~~
- Zac Mitton to ETC Core in January ([@zmitton](#) left later, but remains in ETC ecosystem)
- Bob Summerwill ([@bobsummerwill](#)) as Executive Director of ETC Cooperative in January
- Talha Cross ([@soc1c](#)) as ETC Hardfork Coordinator in February
- ~~Michael Collison ([@testhound](#)) in February? (but left later)~~
- Alan Li ([@lialan](#)) to ETC Core in February
- Zane Starr ([@zcstarr](#)) to ETC Core in April
- Tomasz Zdybal ([@tzdybal](#)) to ETC Core in May
- ChainSafe ([@ChainSafe](#)) ETC engagement – Görli, Classic Geth and HL Besu projects
- POA ([@poanetwork](#)) – ETH/ETC Bridge and BlockScout projects

Bob Summerwill was hired as the first Executive Director of the ETC Coop in January 2019. Anthony Lusardi, the first hire as Director, USA, was instrumental in hiring Bob, having invited him to speak at ETC Summit and then asking whether the ETC Coop might be of interest. But then Anthony himself chose to leave the ETC Coop in March, following some very stressful times during and immediately after the 51% attacks.

Mission of the ETC Coop

The mission of the ETC Coop is to steward the development of the Ethereum Classic protocol and to support the growth of a mature ecosystem around that protocol. There are three pillars to this mission:

- **Accelerate adoption** of ETC technology by individuals and enterprises through effective branding, marketing and education.
- **Foster collaboration** between ecosystem participants including developers, miners, investors, enterprises and end-users.

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- **Mature Governance and Transparency** – efficient and transparent governance framework, including use of funds.

Activities, Accomplishments, and Challenges

The ETC Coop's three Mission Pillars drive everything which we do.
Each **Pillar** has several areas of focus we call **Themes** in support of that pillar.   We use these themes as the unit of granularity in tracking and measuring our progress and assessing the efficiency of our spending. The 2020 roadmap will expand on this framework.

Here are the themes we have been working on through the 2019 calendar year:

- **Adoption** – Comms and Marketing, Development, Infrastructure
- **Collaboration** – Protocol, Partnerships
- **Governance** – Internal Processes, Finance, Transparency

ETC Summit is another project which is not easily categorized. It spans Comms and Marketing, Development, Protocol and Partnerships. It is an important focal point for the whole ecosystem.

In the following sections, we present a retrospective on the 2019 year, for the ETC Cooperative, with activities, accomplishments, and challenges, which will set the stage for solutions and the path forward, which will be presented in the 2020 strategic plan and annual roadmap.

Adoption – Comms and Marketing

ETC Summit 2019

"*ETC Summit was like the gathering of the entire extended family in Vancouver where everyone bonded and connected about their love for Ethereum Classic. Vancouver was the perfect location to host the 2019 Summit which had themes of friendliness, compassion and excitement for the future of ETC. Old rivalries were cooled, new friendships brewed, and many of the original gang got to spend yet another year together dreaming big about what immutability and unstoppable applications meant to them.*"

– Yaz Khoury

"*[As Ethereum heaves beneath political and technical issues, ETC plans to kill it with kindness](#)*" – Ben Munster, Decrypt Media

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Looking over Vancouver Convention Centre towards Stanley Park

View from inside the venue, which has floor-to-ceiling glass throughout.

The ETC Summit 2019 speakers on stage, "chugging" maple syrup at the close of the event

- [Due to industrial action](#), we had to change hotel, venue, catering, A/V, everything, with only two weeks to go, but the replacement venue, the [Vancouver Convention Centre](#) was actually much better!
- Bob was the MC for both days and brought energy and passion which set the tone.
- The content was very high quality and applicable outside of just ETC.
- We had around double the attendance of ETC Summit 2018.
- The "maple syrup" theme will be remembered, with Canadian flags everywhere.
- The ETC Coop hosted a speakers' dinner on the first night which was hugely helpful for building comradery within the previously mutually distrustful group.
- A raft of evergreen materials (slides, videos) came from this event.
- On the downside, the event was very expensive to host (nearly 50% of the ETC Coop's spending went on ETC Summit, for a total spend of $160K), we were unable to charge for tickets, and we could only raise $26K from sponsors.
- The 2020 Roadmap document considers various options for the future of ETC Summit.

Other Conferences and hackathons

Representatives of the ETC Coop (Bob Summerwill, Yaz Khoury, Anthony Lusardi and Chelsea Palmer) attended most of the primary Ethereum hackathons and community conferences during the 2019 calendar year.

The ETC Coop sponsored [TABconf](#), [ETHBerlinZwei](#) and [ETHWaterloo2](#).

The events were chosen to maximize grassroots contacts with individuals already familiar with the Ethereum technology stack, but unaware of the ETC story. Our attendance was intended to signal that ETC is part of the Ethereum family, that ETC Coop is friendly, technically competent and are "team players".

- Feb 9 to Feb 10 - [TabConf](#), Atlanta, GA, USA
  - Anthony Lusardi and Yaz Khoury spoke on an Ethereum vs Ethereum Classic panel [which was recorded](#).
- Feb 15 to Feb 17 - [ETHDenver](#), Denver, CO, USA
- Apr 8 to Apr 13 - [EDCON 2019](#), Sydney, Australia
  - Yaz presented [ETC: Wanted, Dev or Alive](#)
  - Yaz worked with a small team on subscription smart contract during the hackathon. The project won a bounty by Kyber
- Straight after EDCON - ETC Meetup in Xiamen, China
  - Yaz gave a presentation about ETC's latest news.
- May 31 to Jun 2 – [CryptoChicks HACK.A.THON](#), Toronto, ON
  - Chelsea Palmer represented ETC Coop at this event.
- Aug 21 to Aug 24 - [ETHBerlinZwei](#) and [DappCon](#), Berlin, Germany
  - ETC Coop sponsored this event
  - Yaz presented on [Quantifying Immutability](#) and was a judge in the hackathon

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- Yaz worked on Nazgul Testnet with Project Görli and Whiteblock, whose goal was to stress-test the forthcoming Atlantis hardfork.
- Anthony and Bob were also present in Berlin for networking

- Oct 8 to Oct 11 - DEVCON5, Osaka, Japan
  - Bob presented What is Happening with Ethereum Classic?
  - Yaz also attended DEVCON, and lots of networking was done
  - In particular Bob spent quality time with both Terry Culver and James Wo of ETC Labs, leading, it seemed to a clear path for ETC Labs funding for the ETC Coop, but ultimately no funding occurred.
- Oct 27 – Global Digital Assets (Vancouver) Summit 2019, Vancouver, BC
  - Bob presented What is Happening with Ethereum Classic (again)
- Nov 8 to Nov 10 - ETHWaterloo2, Ontario, Canada
  - ETC Cooperative sponsored this event
  - Yaz hacked on Enigma as part of the hackathon.
  - This will lead to a larger scope project to bring Enigma support to ETC

Bob Summerwill with Rhys Lindmark (MIT DCI) and Scott Moore (Gitcoin) at ETHDenver in February 2019.

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Anthony Lusardi and Yaz Khoury with their fellow panelists at TABconf in February 2019

Yaz Khoury presenting "ETC: Wanted, Dev or Alive" at EDCON in Sydney, Australia in April 2019.
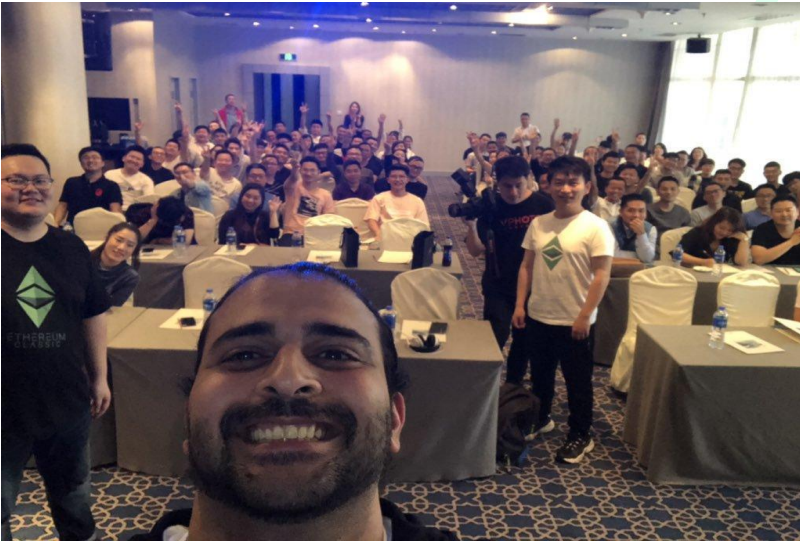
Yaz Khoury in Xiamen, China in April 2019

Zak Cole of Whiteblock announcing Nazgul just after ETHBerlinZwei, in August 2019

Bob Summerwill on What's Happening with Ethereum Classic? at DEVCON in Osaka, Japan, October 2019.

Bob Summerwill at Global Digital Assets Summit 2019, Vancouver, Canada in October 2019.

Relaunch of Ethereum Classic website

Another particular highlight of the year for Comms and Marketing was the relaunch of the [Ethereum Classic Website](#) in November.

The rebooted Ethereum Classic website

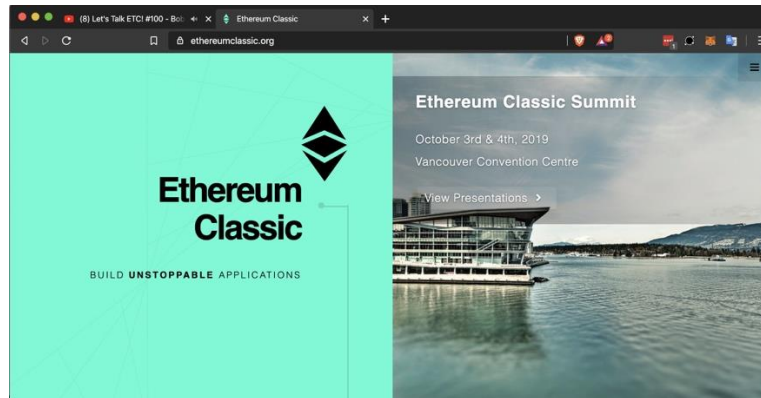Bob had identified that the existing [WordPress Site](#) which Anthony had commissioned in 2018 was already becoming obsolete, and the constrained workflow was a huge barrier to community participation.

The lack of a collaboratively maintained website with good workflow was also contributing massively to [East / West disconnect.](#)

Graphic from Bob's blog post

The solution was simple:

1. Revive the original website, with [Github pages workflow](#), but adding internationalization support
2. Creating a WeChat channel for ETC Global Comms.

This plan was announced on Oct 4th and fully implemented by November 2019, mainly driven by volunteers outside of the ETC Cooperative. [Chris Hitchcott](#) and [a.s.](#) in particular have been pivotal. This has been marvelous to see.

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Re-establishing relationship with Roy Zou and ETC Consortium (China)

Up until April 2018, the ETC ecosystem in China, Korea, Japan and other parts of Asia got their ETC information from Roy Zou's ETC Consortium, the original China ETC community. However in April 2018, DFG founded ETC Asia Community began filtering information to the ETC ecosystem, claiming to be the "official" ETC community in Asia.

We have since enhanced our internationalization support with the rebooted https://ethereumclassic.org site, which will add Mandarin support (as well as other languages) and let us get high-quality basic information to everyone on the planet and further establish ourselves as the channel for ETC information among the Asian communities. We also launched the **ETC Global Comms** WeChat channel in October – again for direct communications.

In 2019 the ETC Coop also re-established their relationship with Roy Zou, of the ETC Consortium in China. Roy had spoken at ETC Summit and was the primary community coordinator in China until DFG entered the stage during 2018.

Roy was very helpful during the Atlantis hardfork in September, with his great connections at Chinese exchanges and with miners, wallet developers and other node operators. He is actively participating in the reboot of the website and is also rebooting the ethereumclassic.cn website.

"Quantifying Immutability" research

The Atlantis hardfork was the first major ETC protocol update since the Monetary Policy in December 2017 and contained a number of changes which could be considered to affect immutability. Were these changes "against ETC philosophy?"

More expansively, productive communication had often stalled in the past because of simplistic binary views on "Immutability". Yaz researched immutability very deeply so that we could fully explain the Atlantis changes to ETC stakeholders and show that there was nothing there which affected immutability in any practical way.

The results of this research were documented in a report called Quantifying Immutability. The article proved very popular, even attracting feedback from Vitalik Buterin.

The research has been submitted to Cryptoeconomic Systems, a new MIT journals, in the hope that it will be accepted in their forthcoming first issue. We will find out more about the status of this submission in Q1 2020. Here is a draft of the research paper in pre-print.

If accepted, this would be the first instance of the ETC Cooperative publishing original research at the highest quality bar, for the benefit of the blockchain ecosystem as a while – and demonstrating that ETC is a world leading blockchain project – not just a "protest coin".

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Other blog posts

- Ethereum Classic on Raspberry Pi – 10th Jan 2019
- AMA with Bob Summerwill and the ETC Cooperative – 30th Jan 2019
- ETC Cooperative AMA – Recap – 8th Feb 2019
- Kotti, Solidity, ETC, Oh My! – 22nd Mar 2019
- Supporting a Minority Chain – 29th Mar 2019
- About ETC "Atlantis" Upgrade – 26th Aug 2019
- ETC Support in Hyperledger Besu – 10th Sep 2019
- ETC Cooperative applying to join EEA – 12th Sep 2019
- Atlantis announcement – 12th Sep 2019
- Addressing East/West Disconnect in ETC – 3rd Oct 2019
- Proposing an explicit social contract in support of ETC mining – 6th Oct 2019
- ETC Cooperative extends Yaz Khoury's contract – 17th Oct 2019
- ETC Cooperative joins Enterprise Ethereum Alliance – 18th Oct 2019

Ongoing social media presence

- Primarily on ETC Discord and ETCCooperative twitter account
- Also, on ETC Global Comms WeChat channel from October onwards
- Medium for blog posts, with transition underway to Github Pages
- Some small communications on LinkedIn, Telegram, Forum and various private groups for direct communication with exchanges and other node operators.

People's attitude towards ETC is changing for the better. Fast.

Tweet from Kenny Rowe – Co-Founder MakerDAO, later RChain, CoinFund

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Tweet from Jorge Izquierdo – CEO, Aragon One, Co-Founder Aragon

Ineffective spending on WordPress

We spent $42K with Red Lab Technologies (Red Lab), a software design and development firm, on our WordPress websites during 2018 and 2019.

In retrospect we believe sourcing the work from within the community, as started to happen in October 2019 with the **East/West Disconnect** initiative, would have been a better use of capital. The agreement with Red Lab was terminated in December 2019, and we anticipate $0 spend on websites moving forward.

The grassroots volunteers are producing high quality content, are more passionate, enjoy being able to contribute and do the work for free. Everyone wins.

Ineffective ad campaigns

We spent $40K with Red Lab on an ETC awareness campaign in late 2018 and another $13K on an advertising campaign for ETC Summit 2019.

Like the WordPress websites, in retrospect this was a very poor use of capital, and we will not be running paid advertising campaigns in the future. We will attract people to ETC through grassroots efforts and by making the ETC protocol and ecosystem organically appealing. We do get some free Google AdWords credit as a non-profit and will try to use that "free money" well.

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ETC Summit is VERY expensive

There have been three ETC Summit events to date:

- [ETC Summit 2017](#) in November, Hong Kong, China (organized by [DCG](#))
- [ETC Summit 2018](#) in September, Seoul, Korea (organized by [Anthony Lusardi](#))
- [ETC Summit 2019](#) in October, Vancouver, Canada (organized by [Bob Summerwill](#))

These events have been **very expensive**, using up a significant proportion of the ETC Cooperative's budget in each of these three years:

- ETC Summit 2017 - $130,000 (90% of budget, estimated)
- ETC Summit 2018 - $180,000 (29% of budget)
- ETC Summit 2019 - $160,000 (47% of budget, estimated)

The events have never been seen as sufficiently "premium" to charge attendees for their tickets or to attract any significant sponsorship.

The lack of interest, especially prior to the [ETC Atlantis hardfork](#) (which happened in September 2019), can be attributed to the ETC project being unloved, and so ETC Summit was not seen as a premium event worthy of attendance (paid or otherwise). In 2019, at the end of ticket "sales", 550+ tickets were reserved, with perhaps 200-300 peak attendees on any given day. It was difficult to obtain metrics on this, as there were not numbers taken, due to lack of volunteers.

This can be compared to Ethereum's [DEVCON](#), which sells out instantly at ~$1000 USD per ticket.

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It was a similar story for sponsors, with all of the sponsors arriving very late in the game with the exception of DCG and Grayscale.   Even ETC Labs only committed to sponsoring in September.

We attracted a total of $26K of sponsorship in 2019, which is likely the best year yet, but which was still only 16% of the cost of hosting the event. The rest just came straight from the ETC Coop bank account.

These ETC Summit events are a huge financial drain on the ETC Cooperative rather than the revenue-generating opportunity they could be if the event became seen as "premium".

DCG and Grayscale ran ETC Summit 2017 hands-on, with [Meltem Demirors](#) and [Michael Sonnenshein](#) leading the efforts. Amplified Event Strategy ([Lauren Laino](#), [Elaine Cancelliere](#), [Abby Weisman](#)) have supported each of the events to date, as the operational staff.

The ETC Summit content has generally (but not universally) been of high quality, and the slides and videos from the sessions are evergreen education content. That content has not been maximized though, with it still **not being readily discoverable** at the time of writing. That shortcoming will be addressed before EOY 2020 as part of the rebooting of the [Ethereum Classic website](#).

The sad fact was that the world just **did not care** about attending or sponsoring an ETC conference, or want to watch videos from such a conference (though this may be due to difficulty in finding the content). The 2020 roadmap will address the future of ETC Summit.

Adoption - Development

Development in ETC Cooperative for the year 2019 was filled with a lot of positive impact in the blockchain ecosystem and the open-source development community.

Activities were about building awareness of Ethereum Classic as a viable platform for developers. Creating tools and infrastructure for developers, to lower the barrier to entry. We fixed bugs, made features, and answered development questions on Discord, Twitter and StackOverflow, and writing documentations and guides. We also did a lot of community outreach at hackathon and conferences.

The following sections go over all the major activities:

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Development - ETC and Google BigQuery

Establishing a relationship with the data science and data engineering community was vital, if we were to allow easy access to analyzing Ethereum Classic data. Data was very hard to analyze for ETC initially. The best access was relying on public explorers or scraping data manually for analysis and trying to repeat the process as new data came in.

The ETC Cooperative has then collaborated with Google engineers to add ETC datasets to Google BigQuery. This allows for data scientists to query ETC data on-chain very easily while it updates with new data automatically every day. This effort was reported by CoinDesk.

A Medium post outlining the benefits was provided by the Cooperative, as well as brand new analysis on the Gini Coefficient that measures decentralization. The ETC Cooperative developed a tool to quantify decentralization based on Balaji Sirinvasan's article called Nakamoto.

See also Nakamoto Python Project.

We uploaded that dataset to Kaggle and provided numerous notebooks and examples on how to use the dataset. Because of our extensive documentation on how to query the dataset, it has become the second most starred dataset for crypto on Kaggle, right after Bitcoin.

Our code examples have been referenced numerous times as well.

- ETC Kaggle dataset
- ETC BigQuery notebook
- ETC and Nakamoto library

Dataset Starred	111
Dataset Public Notebooks	21
Notebook Fork and Reference	65

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ETC Labs Launch in San Francisco

Yaz gave a workshop on how to build your own smart contract and deploy it to ETC, and wrote about that event in [The ETC Phoenix Rises in San Francisco](#).

Development Challenges

No real challenges here other than limitations due to funding. We could only achieve whatever Yaz could get done in the fractional time he had left for this key part of his role.

The hope is that we can provide some additional support for Yaz in the future, which could come in the form of interns or partnering with other groups, depending on resource availability.

It is very hard to quantify the ROI on our development projects and on Yaz's Developer Relations work. The best tools we have are a mixture of data signals and gut feelings about sentiment within the ecosystem.

The key objective social media engagement statistics we have are:

- Twitter mentions (of the subset of our tweets which are about our development projects)
- Github forks of our projects (Ethercluster in particular)
- Medium shares of blogs about our development projects

In-person engagement and connections are also hard to quantify, but they're equally important, especially at developer conferences. We look at types of developers in attendance, sponsor interactions, themes of each hackathon to try to spot moving trends and developer interest.

Other key challenges in the crypto-specific industry is how political it is, which can be very intimidating for developers. Development advocacy in crypto must deal with anonymous trolling, accusations of "bag pumping" and tribalism even when the core focus of DevRel is open-source development that spans multiple chains.

Improvement proposals in the protocol are more likely to face internal resistance (from other network participants) than external resistance.

Adoption - Infrastructure

The ETC Cooperative hosts a broad range of infrastructure to keep the ETC ecosystem in a healthy state, and to encourage growth and adoption of Ethereum Classic.

We are providing infrastructure for ETC mainnet and for the two primary ETC testnets:

- ETC Mainnet (Ethash POW)
- ETC Mordor testnet (Ethash POW)
- ETC Kotti testnet (Clique POA)

We are also providing infrastructure for the [ETH Görli](#) testnet as a goodwill gesture. We were also providing infrastructure for ETH mainnet, but that was cost-prohibitive because of the bloated state of the ETH chain. We just cannot afford it. Given that the EF itself does not

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provide such infrastructure, we did not feel too bad in cutting that spending.   We would like to cease spending on Görli too. We will coordinate with the EF DevOps team.

Boot nodes, full nodes and Kotti validator

We run geographically distributed boot nodes as a service to the network. These bootnodes are hardcoded in the client software and help newly starting nodes to find the rest of the network.

We provide geographically distributed full nodes to assist with network security.   Full nodes serve to validate that the blocks produced by the miners and are the ultimate expression of **"Don't Trust. Verify"** philosophy.

We run a Kotti validator node, to support that testnet for the benefit of the network.

Ethercluster instances

We run Ethercluster instances for each of the supported networks to provide high-quality "public goods" JSON-RPC endpoints for developers, so that they can get started on smart contract development without needing to sync a node themselves.   This is an easy on-ramp.

At the time of writing all our Ethercluster nodes are running Parity-Ethereum, but we will add parallel instances running Hyperledger Besu in 2020.

BlockScout instances

We have recently added self-hosted instances of the BlockScout block explorer as a public service, and these will be fully functional before the end of 2019:

- http://kotti.etccoopexplorer.com/
- http://mordor.etccoopexplorer.com/

Websites

We maintain the following primary websites:

- https://ethereumclassic.org
- https://etccooperative.org
- https://etcsummit.com

Project Görli

The Görli Project was first funded by the ETC Coop to allow developers a better testnet to test their code and smart contracts, which began in late 2018 and early 2019.

Previously, most testnets were single-client (Geth-exclusive or Parity-exclusive) and were Proof-of-Work testnets, which meant developers had to mine on the testnet to test their applications. With Goerli for ETH and Kotti for ETC, both funded by ETC Cooperative. The impact of funding this project has been very huge, opening up the door for the Cooperative in the larger ecosystem.

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ChainSafe developers and Afri Schoedon from Parity implemented this project. ChainSafe then has spoken publicly and positively about the ETC Cooperative as a testament to cross-chain collaborations, both at EDCON 2019 in Sydney and at ETHBerlin 2019 in Berlin.

Greg Markou, Partner and VP of Engineering at ChainSafe,
thanking ETC Coop for funding Project Gorli at EDCON in April 2019.

Greg Markou, again praising ETC Cooperative at ETHBerlinZwei in August 2018.

Multiple developers use both testnets now. The Peacebridge project used Kotti testnet for testing deployment. Prysm for ETH2 uses Goerli project.

We provided a guide to writing and deploying smart contracts to ETC using Kotti and the latest Solidity version.

Ethercluster

Ethercluster is an open source alternative to Infura, using Kubernetes, Terraform and Docker, and has been hugely impactful.

The ETH chain is heavily dependent on hosted Infura nodes, with as high as 60-70% of transactions on ETH passing through Infura nodes, and millions of RPC requests being handled

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by Infura. At the time of writing, Infura remains closed-source code, so cannot be replicated by others.

Projects which are using Ethercluster already include:

- ETC Core's [Expedition.dev](#) block explorer
- Second State's [BUILD for ETC](#) IDE
- Saturn Protocol

Several Infura competitors have referenced the design or made enquiries with ETC Cooperative about Ethercluster.

We are offering to contribute Ethercluster to [Hyperledger Labs](#), where work will continue as before, but in a place where we can gather mainstream and commercial interest (and hopefully assistance). This will be a great PR win for the ETC Cooperative and could be a step on the path to full Hyperledger project status.

Hyperledger Besu

In August 2018, the PegaSys protocol development team within ConsenSys announced that they were contributing their Pantheon codebase to Hyperledger (later named as Hyperledger Besu), and that ConsenSys was joining Hyperledger as a Premier Member, with Joe Lubin joining the Board of Directors.   Yaz and Bob learnt this while they were in attendance at ETHBerlin.   This was fabulous news.

[Bob pledged on 22nd August 2019](#) that ETC Cooperative would fund the development work to add ETC support to Hyperledger Besu and would also apply for association membership of Hyperledger.

ETC was in dire need of further client diversity, and Hyperledger Besu is of exceptionally high quality, with perhaps 50-100 world class Java, distributed systems experts and cryptographers on the PegaSys team, having working to build the codebase from scratch over 2 years, driven by their deep experiences with enterprise engagements at ConsenSys up-to-and-including at Nation State level with the Dubai 2020 project.   The Co-Founder at PegaSys, Shahan Khatchadourian was there at the inception of the EEA, and was Co-Lead Architect for the launch period, alongside Bob Summerwill.

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Bob Summerwill, Kirk Dameron, Shahan Khatchadourian and Joseph Chow (all ConsenSys) walk Vitalik Buterin (EF) and Amber Baldet (JPM) through the EEA technical roadmap, at a pre-launch EEA meeting in Brooklyn in January 2017. The technical specifications which the EEA has generated have driven the direction of Pantheon, now Hyperledger Besu in those 2.5 years since this day.

ChainSafe Systems were engaged as the vendor, and ETC support for Atlantis was completed and upstreamed into the master branch on 15th Nov 2019. Further work to add Agharta support was completed and upstreamed into the master branch on 25th Nov 2019.

Mordor and Kotti support was added too, and Edward Mack of ChainSafe, who did the majority of the work for ETC support was granted Maintainer status for the Hyperledger Besu project on 5th December 2019.

The ETC Cooperative will be Besu-first in all of our infrastructure work in 2020. This codebase lives under the mature governance of the Linux Foundation, with enterprise friendly licensing and IP policy. This is exactly the setup which is needed for broad support and adoption of a codebase.

We will continue to support Parity-Ethereum nodes but will not be supporting Multi-Geth (because the codebase is GPLv3 encumbered and has no adequate IP protections). In Bob's assessment, all Geth-family codebases will likely die off within the next 2 years. We should not be investing there.

The sole tactical exception to that is TurboGeth, where the approach is so promising (though the codebase itself might die) that we want to encourage use of TurboGeth, and will be looking to provide ETC support (by porting that support from MultiGeth). There is no funding assigned to that work. Instead we would be encouraging ETC community volunteers who have expressed interest in helping with protocol work to help with TurboGeth.

etcnodes.org

The ETC Cooperative funded bitfly to create a version of ethernodes.org for ETC, which we will host at etcnodes.org. This website crawls the Internet and finds all the ETC nodes, showing total node counts (including historical data), "market share" of the different clients, and also has a very useful page showing readiness in the run-up to a pending hardfork.

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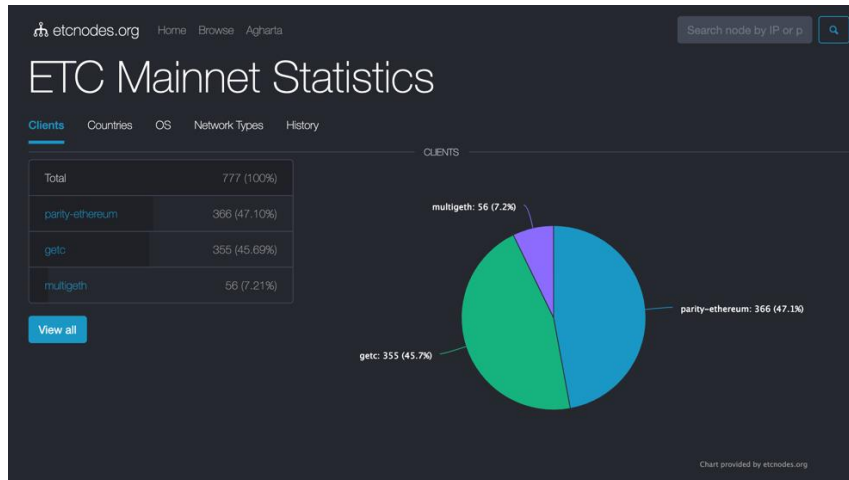
ETC was severely lacking in such objective data for the Atlantis hardfork, with such simple questions as "how many ETC nodes are there?" needing manual calculation and "guesstimates".
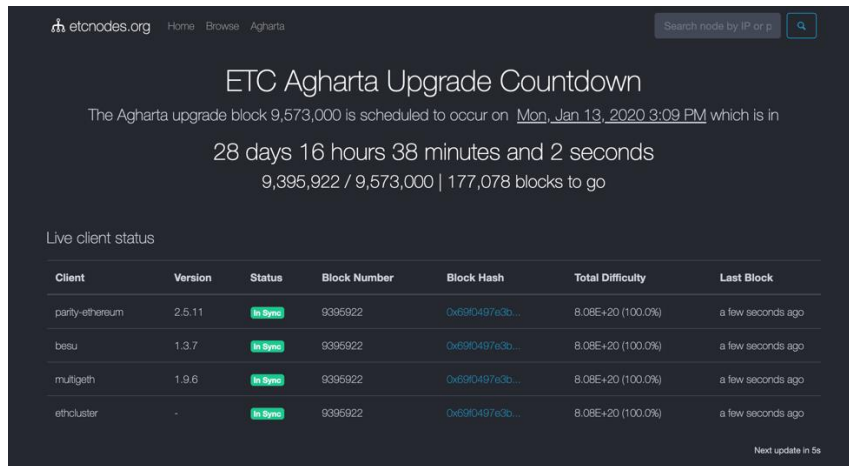
Development challenges - Peacebridge

More than a year after the Peacebridge Project was first announced the technology is still not deployed in a functional form as envisaged. Virgil Griffith from the Ethereum Foundation told us that he would be willing to continue to co-fund a further phase of this project, but we have agreed to switch vendor if that occurs.

But perhaps the project as a whole has become obsolete? Given our limited funding situation it be better to allocate those funds to other projects.

ETC Coop spent $42,800 on PeaceBridge and EF matched that spending.

It would make sense to have Ethereum-to-Ethereum bridge technology, but that need not come through the Peacebridge approach. POA Network's AMB technology is very promising and

ETC Cooperative

could provide these bridges.

Collaboration – Protocol

Toward the start of 2019 there was an attempt by ETC Labs to fork the ECIP process, with their creation of an ECLIPs (Ethereum Classic Labs Improvement Process) repository.   Thankfully that was short-lived, with pushback from ETC Coop and others.

ETC Labs "announced" that the Atlantis hardfork would be happening in July via a Medium post from Christian Xu, which we believe was outside of the ECIP process and without any consensus.   ETC Coop and others pushed back on that again, with Wei being particularly vocal, with Atlantis occurring in September.

We built a successful pattern of collaboration around Atlantis, with Afri performing a key role as Hardfork Coordinator, which has set us up for success in Agharta and following hardforks.   Bob and Yaz were both very involved with the ECIPs process, with Yaz being one of the five ECIP editors.

Challenges

- Mining algorithm change (very contentious)
    - [Mining panel at ETC Summit](#)
    - Resisting the ProgPOW social attack on Ethereum and ETC
        - ARTICLE – "[ProgPOW Author Kristy-Leigh Minehan Uninvited from ETC Summit"](#) by Decrypt.
        - ARTICLE – "[ProgPOW advocate uninvited to Ethereum Classic Summit over links to Craig Wright](#)" by Decrypt.
        - ARTICLE – "[ProgPOW backer steps down from controversial role](#)" by Decrypt.
        - ARTICLE – "[The (alleged) plot against Ethereum](#)" by Decrypt.
        - ARTICLE – "[Ethereum Classic's plan to seduce Ethereum's miners"](#) by Decrypt.
        - Yaz submitted [ECIP-1070 for ProgPOW](#), so that we could reach consensus on ETC ecosystem explicitly rejecting ProgPOW
        - ARTICLE – "[Ethereum Classic Rejects ProgPOW, while SHA3 gains support](#)" by AMBCrypto.
    - SHA3/Keccak256
        - ETC Coop are now advocating for a change of hash algorithm
        - Rejecting "bad inheritance" from Ethereum
        - Setting up ETC protocol for multi-decade success as majority hash for either SHA3 and Keccak256.

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Collaboration – Partnerships

Jeremy Woods (IOHK), Charles Hoskinson (IOHK), Bob Summerwill (ETC Coop),
James Wo (ETC Labs), Christian Xu (ETC Asia Community) at ETHDenver in February 2019

Partnerships – DCG and Grayscale

Grayscale has provided 75% of total funding for the ETC Cooperative and is the only legal entity which has provided ongoing funding.

DCG also assisted with incorporating the legal entity and hiring **Anthony Lusardi** as the first Director.

ETC Cooperative has been and remains hugely dependent on DCG and Grayscale contributions to remain viable.

Barry Silbert has been a very engaged Director of the ETC Cooperative's board and has been invaluable throughout the year, providing help and support. This was exemplified by his invite of Bob Summerwill to the DCG Founders Summit in Arizona in October.

ETC Cooperative

Barry Silbert (DCG and Grayscale) at DCG Founders Summit in Arizona, October 2019. Bob Summerwill was a guest.

Partnerships – DFG and ETC Labs

The most obvious target for additional ETC Coop funding during 2019 was ETC Labs, as the primary commercial entity within the ETC ecosystem, with James Wo as a board member, and with DFG having made a $250K donation at inception of ETC Cooperative as a non-profit in May 2018.

Much of Bob's effort during 2019 was focused on the relationship with ETC Labs, both for ETC Cooperative as a legal entity, and on ETC Lab's relationship with other ecosystem participants in general.

During Summit there were handshakes and smiles all around. It seemed that peace had been achieved (or ceasefire at least) between all of the different factions of the ETC ecosystem.

ETC Cooperative

Partnerships – IOHK

- Bob met Charles and Jeremy at ETHDenver in February 2019 and introduced Charles to James, Christian and Eric (Krykoder).
- Charles was silent through the rest of 2019 until accepting Bob's invitation to give the closing keynote at ETC Summit 2019.
- There was also "a moment" during the speaker dinner where Charles had seemingly been galvanized into returning to the ETC stage.
- Bob and Yaz spent another hour or so with Charles, Kevin and Brian (an IOHK project manager) discussing a specific plan on how ETC could return to ETC without any of the prior conflict caused by the IOHK treasury proposal.
- But in November and December, further follow-up by Bob revealed that the opportunity was not being pursued.   Charles and IOHK have instead decided to focus on a new POW L1 chain they are building.
- They are still open to being the (paid) vendor for further working on Mantis ETC, if a new funding source can be found for that.

Charles Hoskinson (IOHK) and Bob Summerwill (ETC Coop) onstage at ETC Summit, "chugging" maple syrup

Partnerships – Ethereum Foundation

2019 saw ongoing fairly friendly interactions with the Ethereum Foundation, usually but not exclusively through Virgil Griffith.   Bob Summerwill, as the new Executive Director, brought a huge raft of other direct relationships to key members of the Ethereum ecosystem with him.

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Virgil was very helpful as an "inside line" to the EF, but ultimately EF declined to provide direct funding for the ETC Cooperative. Co-funding projects (like Peacebridge and Görli) was possible but direct funding was not, nor was funding of Mantis.

Given that at this time EF will not be providing direct funding to ETC Cooperative, the best we could hope for would be to apply for grants via their public grants program.

Bob Summerwill (ETC Coop) and Virgil Griffith (EF) onstage at ETC Summit at the end of Virgil's talk on Positive Sum Games, again celebrating peace and collaboration between the Ethereum and ETC ecosystems.

Partnerships - ChainSafe

ChainSafe have been a key partner team for the ETC Cooperative during the last year. They were a key part of the Görli/Kotti project in late 2018 and early 2019 and were extremely positive about the Coop during EDCON in April 2019 and ETHBerlin in August 2018.

We chose ChainSafe to implement ETC support in Hyperledger Besu from October onwards, as they had fresh experience from their work on Geth Classic. They completed implementation of ETC support up to Agharta, including Mordor support, in November 2019.

We have just (in December) agreed to a new statement of work (a further $10K) for them to implement Aztlán/Phoenix support in Hyperledger Besu, as they have familiarity with the project. They have also provided various other statements of work for potential future projects; however, these would need to go through the grant process in 2020 (or beyond).   Edward Mack, the developer who implemented the ETC support, has just been granted "Maintainer" status with the Besu project – one of the very first non-PegaSys maintainers – helping Besu on their road to "Active" status within Hyperledger.

Aidan, their CEO, spoke at ETC Summit.

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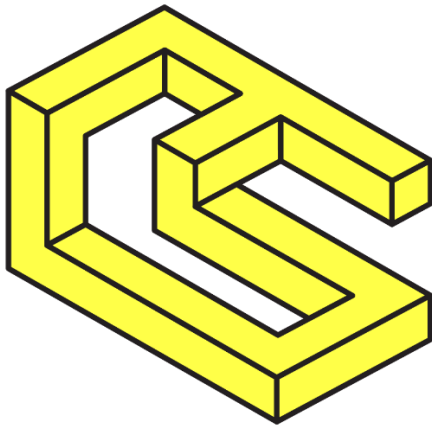
Partnerships – POA Network

POA network have been long-time friends and allies of ETC.   Igor Barinov, their CEO, spoke at ETC Summit 2018, and they provided another speaker again at ETC Summit 2019, though Igor was unable to attending himself.

They have been supporting an active bidirectional ETC-ETH bridge for the past year or so, which the ETC Cooperative will be taking over soon.

They also develop Nifty Wallet – a MetaMask fork which adds ETC support, amongst other things, and BlockScout, an open source explorer.

ETC Cooperative are now hosting BlockScout instances for Mordor, Kotti and ETC mainnet.

POA could be an ideal future partner for reviving the stalled Peacebridge project. POA have some world-class bridging technology and we are considering using what they have already built.
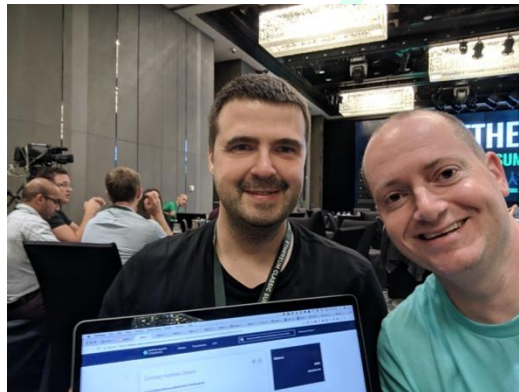
Igor Barinov (POA Network) and Bob Summerwill (ETC Coop) at ETC Summit 2018

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Partnerships - Enterprise Ethereum Alliance

The ETC Cooperative applied to join the EEA on 12th September 2019 and were confirmed as members on 18th October 2019.   The EEA is the defacto standards organization for enterprise blockchain, backed by the largest developer community in the world and with a huge worldwide member-base of over 500 companies, many of them Fortune 500 or NASDAQ-listed bluechip household names.

Some examples:

- Accenture
- Banco Santander
- BNY Mellon
- Broadridge
- ConsenSys
- Deloitte
- DTCC
- Electric Coin Company
- ING
- Intel
- John Hancock
- JPM
- Microsoft

Bob played a key role in the creation of the EEA, serving as Co-Lead Architect in the launch period as giving the Technical Roadmap talk at the launch event. Bob later served as Secretary of the Technical Working Group and then as Vice-Chair of the Technical Steering Committee. In total, he spent a full year on the EEA (while working for ConsenSys).
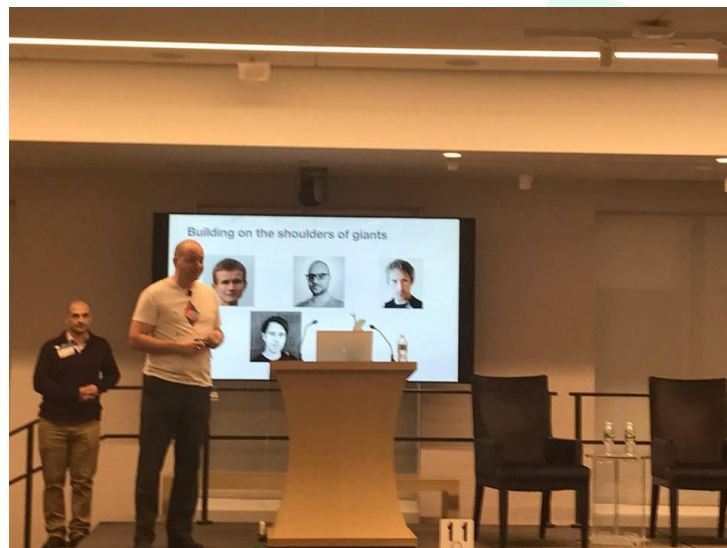
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Bob has volunteered to fill one of the vacant roles as Vice-Chair of the EEA Technical Specification Working Group – **the** key working group within the organization.   That is very likely to go through, with that role beginning in January 2020.   The ETC Cooperative will have a seat at the very highest table with regards to the specification of the Ethereum stack, specifically with a view to enterprise and mainstream adoption.

Ron Resnick (EEA) and Bob Summerwill (ETC Coop) at Consensus 2018 with more "maple syrup" gifting.
This was 8 months prior to Bob joining the ETC Cooperative. Huge symbolism in Bob's wearing of a
Parity Technologies T-shirt for this photograph, because Parity remain the notable absentees from EEA and were also the blocks of
cpp-ethereum relicensing which was the indirect cause of the EEA even existing.

Partnerships - Hyperledger

In the same blog post that we announced that we would be funding ETC support in Hyperledger Besu, we announced that we would be joining Hyperledger as an associate member. Membership is not a necessary step for contribution to Hyperledger codebases but was something that we wanted to do anyway – to signal our intent to fully participate in the Hyperledger mission.   Our membership was confirmed on 20th November 2019.

Hyperledger is a Linux Foundation project which is an umbrella for open source blockchain projects. There are numerous projects within that banner (Fabric, Sawtooth, Iroha, Burrow, Indy, Besu, Aries, Quilt, Transact, Ursa, Avalon, Caliper, Cello, Explorer and Grid), though Hyperledger Fabric is the best known. People often incorrectly conflate Hyperledger (the collaboration organization) with Hyperledger Fabric (a specific open source project within that banner) and with IBM Blockchain (one of multiple commercial offerings built using Hyperledger Fabric).

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Like the EEA, Hyperledger has a star roster of enterprises, and we will be interacting with all of them through our participation in working groups and in the Technical Steering Committee.

Some high-profile members:

- Accenture
- Airbus
- American Express
- Cisco
- ConsenSys
- Daimler
- Deutsche Bank
- DTCC
- Fujitsu
- Hitachi
- IBM
- Intel
- JPM
- NEC
- SAP

Bob stood for election to the Hyperledger Steering Committee in 2018 and plans to run for election again in 2020 – this time with a much higher public profile within Hyperledger, due to the ETC Cooperative's work on Hyperledger Besu, and the planned participation of both Bob and Yaz in the various Hyperledger working groups during 2020.

The ETC Cooperative is also offering to contribute Ethercluster to Hyperledger Labs. We are also brokering a further contribution – of SOLL by Second State, the alternative Solidity compiler build on LLVM.

Bob Summerwill (ETC Coop) and Brian Behlendorf (Hyperledger).   Again, this was at Consensus 2018 in NY.

ETC Cooperative

Quote from Hyperledger: "*We are very happy to have the ETC Cooperative now a formal part of the Hyperledger community" said Brian Behlendorf, Executive Director of Hyperledger. "Even back in 2016, it was clear to me and to Bob that the more we could do to bring together developers from all our different 'tribes' working together on common code the further we could go as a whole blockchain community, even if we differ on long-term goals, governance models, or genesis blocks. Since then, the growth of the Ethereum ecosystem (both ETH, ETC, and the growing enterprise uses charted by the Enterprise Ethereum Alliance) has made the value of technical collaboration even clearer. Bob was an early believer in this, and to see this idea bear fruit in ETC Coop's interest in ETC support in Besu and their interest in other Hyperledger projects is a high point of 2019 for me.*"

Quote from ETC Cooperative: *"My own Hyperledger journey started in May 2016 when I hosted an Open Source Blockchain Meetup outside of OSCON in Austin, Texas. I was working for the Ethereum Foundation at the time." said Bob Summerwill, Executive Director, ETC Cooperative. "Chris Ferris and Brian Behlendorf both attended that event and Chris spoke. It was obvious to me even then that moving Ethereum codebases under the mature governance and IP policies of the Linux Foundation was the best way to advance the project. With HL Burrow and HF Besu that is exactly what has happened, though it has taken a lot longer than I anticipated. It is an absolute pleasure for me to bring ETC Cooperative to the Hyperledger table, to help accelerate this trend. We are seeing ever increasing cooperation between ETH ecosystem, ETC ecosystem, EF, EEA and the many other flavors of the "Ethereum family". Hyperledger is the best possible place to coordinate that collaboration, in my opinion. We have already made our first contribution to Hyperledger – with ETC support upstreamed to Besu last week."*

Challenges

- Working through disagreements with ETC Labs.
- Working through IOHK's engagement
- Building rapport and trust with Donald McIntyre
- Managing tensions between ECIP process participants
    - ETC Coop is now proposing ECIP 1001 - Code of Conduct
    - Yaz has also proposed the same for the Ethereum EIP process.

Governance – Internal Processes

- Hiring Alison Alexis as Financial Controller and Business Services Manager
- Starting JIRA for task tracking
- Working on Dropbox filing system
- Integrating formal governance framework (which will be presented to Grayscale team in mid-December) including:
    - 2019 Retrospective

- o Strategic Plan and 2020 Annual Roadmap Process
- o Proposals on board composition
- o Formalizing grants process
- o Governance Manual
- o Robust timeline and tracking mechanisms
- o Policies, documents, and templates
- o Formalizing procedures and communication

Challenges

Re-engaging with newly elected Board of Directors.

Following his resignation, Anthony did a great job with the handover to Bob as the new Executive Director, but a lot of context / tribal knowledge was lost, and it has taken Bob months to catch up and gain full awareness, which we are now documenting.

For 2020 we will continue improving our internal processes.

Governance – Finances

- Hiring Alison Alexis
- Putting together financial records
- Initial financials to the board in September
- 990 filings – EY and Alison in October
- Banking relationship Silvergate – Silvergate, Signature, Metropolitan – Nov/Dec
- Fund raising efforts – Sweep-stakes investigated and aborted
- The majority of Bob Summerwill's funding approach for 2020 was to build rapport and trust with ETC Labs. They are by far the largest for-profit entity with the ETC ecosystem. By October we had seemingly built that trust sufficient that Bob was willing to accept money from ETC Labs without feeling that compromised the goals of the ETC Coop.
- Also, major efforts with the Ethereum Foundation, but latest situation as of November, communicated by Virgil Griffith is there is no possibility of direct funding of the ETC Cooperative by the EF.
- Has been VERY HARD to get funding while ETC is so unloved. Handful of entities with commercial interests in ETC, but that will hopefully be a different story in 2020.
- Incremental effort through year.

Challenges

Continuing to keep spending minimal in light of lack of diversity of funding sources.

Raise additional funding.

ETC Cooperative

Governance – Transparency

- In general, the ETC Cooperative does as much as possible of its work in the open – on the ETC Discord, on Github, on the ethereumclassic.org website.
- In 2019 we filed our first 990 form with the IRS, covering the 2018 calendar year.
- We signed a contract with Messari in October 2019 which will lead to higher quality public information on ETC governance and on ETC Cooperative's role within the ETC ecosystem.
- Bob Summerwill has been maintaining a personal Conflicts of Interests statement since 2017 and seeks to bring that same level of transparency to the ETC Cooperative.

Challenges

The ETC Coop has been doing transparency reports since 2018, but due to resources and other priorities, the statement for H1 2019 (first half of 2019) has still not been released. Instead, we will release an annual 2019 transparency report, which will be a pared down version of the 2019 Retrospective.

Grantmaking Process

The ETC Cooperative has been operating a grants program since 2018, though without much formal structure. Every program in 2018 and 2019 has been successful with the sole exception of Peacebridge.

Project Görli	Peacebridge	Hyperledger Besu	etcnodes.org
Unified testnets now used by most devs	Trust-free ETH/ETC bridge. Still incomplete	More client diversity. Rapid uptake	Dashboard of all ETC nodes.
$125K (+125K from EF)	$43K (+$43K from EF)	$24.5K	$7.2K and $13.2K annually

The 990 filing with the IRS exposed that our processes were not meeting basic regulatory requirements. In particular we had no formal mid-project progress reports or means of evaluation.

ETC Cooperative

There were minimal new grants in 2019, however, a process should be outlined. To mitigate the current lack of governance and transparency of this process, the cooperative has produced a standalone document, that describes the proposed 2020 grantmaking process and flow.

ETC Cooperative

Financial Section

For the year ended December 31, 2019

In the 2018 half year reports, the following categories were used to aggregate the spending and accomplishments:

- "Technical Enhancements" – Providing the end-user tools and technical information that is necessary to use ETC.
- "Community Building" – Providing the information and resources that community members expect.
- "Outreach" – Reaching out to other cryptocurrency communities to expand ETC's reach.

Many aspects of the ETC Cooperative's operations have significant overlap; for example, improvements to development are often improvements for the community, therefore in 2019, we have used a different category break-down, to present the financial data as below. Please note that due to this change in categorization, figures presented in the 2018 reports, may not total the same figures at in 2019. This report will show the 2018 and 2017 figures, stated and grouped in the same manner as 2019, for consistency and comparative purposes, which will be carried forward into 2020 and beyond. While following general accounting principles, these figures and charts are not in compliance with IFRS ("*International Financial Reporting Standards*") or FASB "*Financial Accounting Standards Board*").

2019 YTD Financial Results

Expenditures

2019 Expenditures $USD					
	Q1 2019	**Q2 2019**	**Q3 2019**	**Q4 2019**	**F2019**
Overhead & Management	$69,598	$45,665	$46,684	$50,770	$212,716
ETC Summit	$19,916	$19,111	$6,411	$136,491	$181,929
Development	$28,183	$29,209	$31,214	$32,390	$120,997
Protocol	$62,500	$0	$7,175	$17,325	$87,000
Comms & Marketing	$7,115	$5,875	$47,748	$26,146	$86,884
Finance	$0	$10,832	$5,021	$19,463	$35,316
Infrastructure	$0	$0	$0	$9,315	$9,315
Partnerships	$0	$0	$0	$750	$750
Total Spending	**$187,312**	**$110,692**	**$144,252**	**$292,649**	**$734,906**

ETC Cooperative

Overhead & Management

This category includes salaries and payments for the Executive director and the Director of US Operations, as well as all overhead, office, legal and related expenses.

ETC Summit

In 2019, the ETC Summit was held in Vancouver, Canada on October 3 & 4. This category includes all expenses related to the summit, including payment of the conference venue, event management services, travel and hotel costs, and meals & entertainment.

Development

This includes salary for the developer relations role and costs of all in-house development work.

Protocol

This includes all work related to client software and protocol-level work – primarily Kotti/Gorli and Hyperledger Besu for 2019.

Communication & Marketing

This includes all advertising, promotional work, marketing, conference sponsorship, website costs, and all related travel.

Finance

This includes costs related to filing form 990 with the IRS, accounting software, and finance salaries.

Infrastructure

This covers costs of hosted services which we provide to the ecosystem. Etcnodes.org is the single entry here for 2019.

Partnerships

This was very minimal for 2019 and only included the administration fee for joining the EEA, which will be amortized over the annual period.

Ecosystem & Technical Projects Break-Down

2019 Ecosystem & Technical Project Expenditures					
	Q1 2019	Q2 2019	Q3 2019	Q4 2019	F2019
Gorli/Kotti Project	$62,500	$0	$0	$0	$62,500
Hyperledger Besu ETC support	$0	$0	$7,175	$17,325	$24,500
Messari Project	$0	$0	$10,000	$0	$10,000
Bitfly Ethernodes	$0	$0	$0	$9,315	$9,315
Total Expenditures	**$62,500**	**$0**	**$17,175**	**$26,640**	**$106,315**

ETC Cooperative

The two main grant driven projects the ETC Cooperative has undertaken to date, have been the PeaceBridge and Goerli/Kotti projects. In Q1 2019, the final payment related to the Goerli/Kotti Project was made. In 2019 ecosystem and technical work, included payments, related to the ETC awareness campaign with Red labs, Hyperledger Besu ETC support, with ChainSafe, and payments to Messari, for ETC to be part of their disclosure's registry. The payment to Messari, is an annual payment, however it was fully included in the month it was incurred.

Net (Loss)/Income

Net (Loss)/Income					
	Q1 2019	Q2 2019	Q3 2019	Q4 2019	F2019
Income	$53,121	$89,165	$98,928	$122,463	$363,677
Operating Expenses	$187,312	$110,692	$144,252	$292,649	$734,906
Net (Loss)/Income	**(134,192)**	**(21,527)**	**(45,324)**	**(170,187)**	**(371,229)**
Unrealized (Loss)/Gain on ETC[1]	(3,615)	46,808	(48,650)	(3,433)	(8,890)

[1]*Revalued to the market rate at the end of each reporting period. Rates used were:*

Q1 - $4.82, Q2 - $7.73, Q3 - $4.71, Q4 -$4.50

Note that the net (loss)/income does not include the unrealized (loss)/gain on the re-evaluation of ETC at market rates.

Income

The ETC Cooperative earns income from the arrangement with Grayscale LLC, as well as donations and sponsorships. Under the current arrangement, 1/3 of fees collected by Grayscale, related to their Grayscale Ethereum Classic Trust, are contributed to the Cooperative. Sponsorships related to the ETC Summit, are either included in income, if they are general purpose, or offset to expenses, if they are for a specific event/activity. Sponsorship income of $26K was included in Q4 2019, related to the ETC Summit.

The income received for the year ended December 31, 2019 of $364K is significantly lower, than the income received for the year ended December 31, 2018, which was $1.1M. Lower ETC prices and fund investment, as well as lower other donations/contributions, resulted in the substantially lower income, the Cooperative had to fund activities. As can be seen in the chart below, the price of ETC (against the $US), is correlated to the income received.

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Average $ETC vs. Quarterly Income
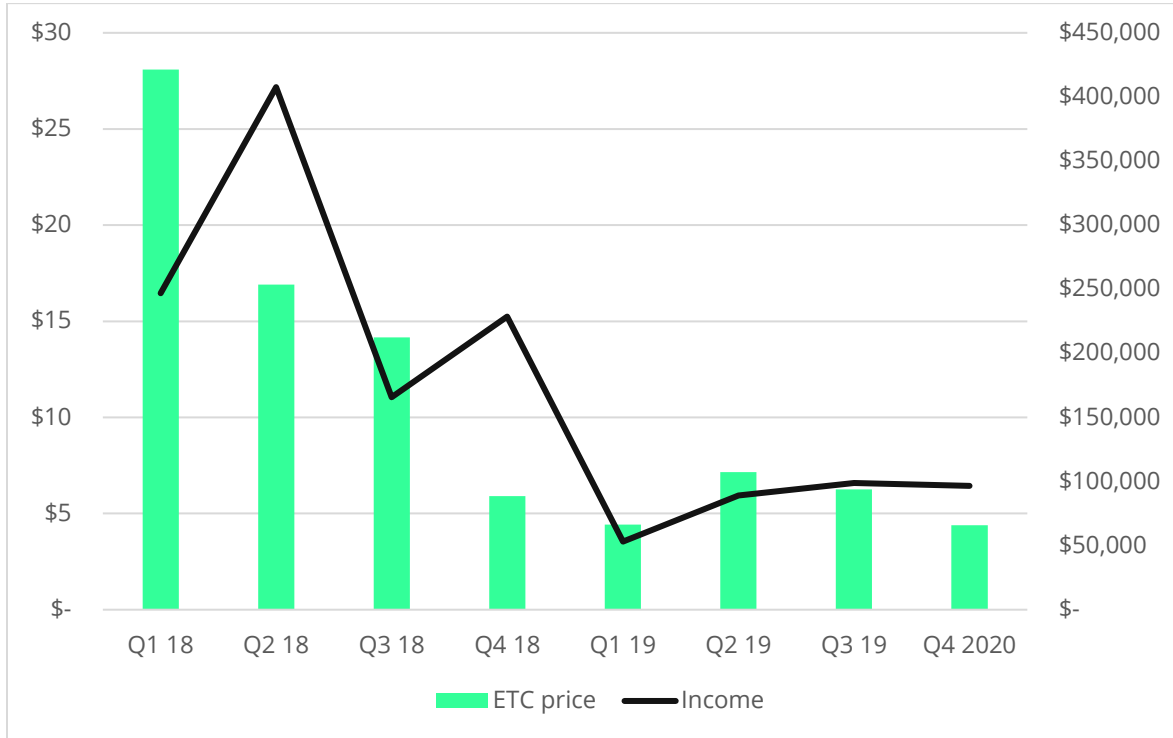
The fee arrangement with Grayscale was for a 3-year period, which will be ending in April 2020. A similar arrangement was agreed with Grayscale, extending the agreement for up to another 2 years, however the ETC Cooperative will have to continue looking at other sources of funding, to continue operating into the future.

Unrealized (Loss)/Gain on ETC

These figures represent the difference between the book value of ETC, included in the financial information and the market value as of a certain date. The book value is the value or exchange rate at which the ETC was purchased and recorded to the financial records, in US dollars. This value will remain on the books, until the ETC is sold. However, it over or understates the actual value of the ETC held, at a certain point in time and thus the liquidity of the ETC Cooperative. To present a more accurate picture, the unrealized gain or loss is presented, which shows what would have been reported, if the ETC held, had been sold. Each period, this will change to reflect the current rate at the end of the reporting period (i.e. September 30, 2019 for Q3 2019).

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Financial Position

Financial Positions in $US			
	31-Dec-19	**31-Dec-18**	**31-Dec-17**
Assets			
Cash & Cash Equivalents	$146,318	$530,268	$0
ETC (at book value)[1]	$154,363	$154,363	$0
Accounts Receivable	$12,057	$7,057	$0
Due from Grayscale	$18,808	$(6,729)	$371,505
Prepaid Expenses & Deposits	$2,250	$0	$0
Total Assets	**$333,796**	**$684,960**	**$371,505**
Liabilities			
Accounts Payable & Accrued Liabilities	$44,393	$20,305	$0
Due to Grayscale	$(1,000)	$3,022	$131,864
Total Liabilities	**$43,393**	**$23,328**	**$131,864**
Equity			
Retained Earnings	$661,632	$239,640	$0
Net (Loss/Income)	$(371,229)	$421,992	$239,640
Total Equity	**$290,403**	**$661,632**	**$239,640**
Total Liabilities & Equity	**$333,796**	**$684,960**	**$371,505**
ETC at Market Value[1]	*72,540*	*81,430*	*0*
Liquid assets[3]	**218,858**	**611,698**	**0**

[1] *Book value is the value when the ETC was originally purchased. Market value is the value at the end of the reporting period (prices from Yahoo finance).*

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Assets

There has been a significant decrease in cash, in 2019 as the Cooperative continued with 2019 activities. The income received from Grayscale, was significantly lower, in 2019 as a result of reduced ETC prices, and there were no other significant sources of contributions. The income received per quarter, was not enough to fund quarterly expenditures, leading to a decline in the bank balance.

Liabilities & Equity

Accounts payable and accrued liabilities, was predominately composed of accrued salaries for the month of December, which were paid in January.

Due to lower income levels, the ETC Cooperative has been in a loss position for 2019.
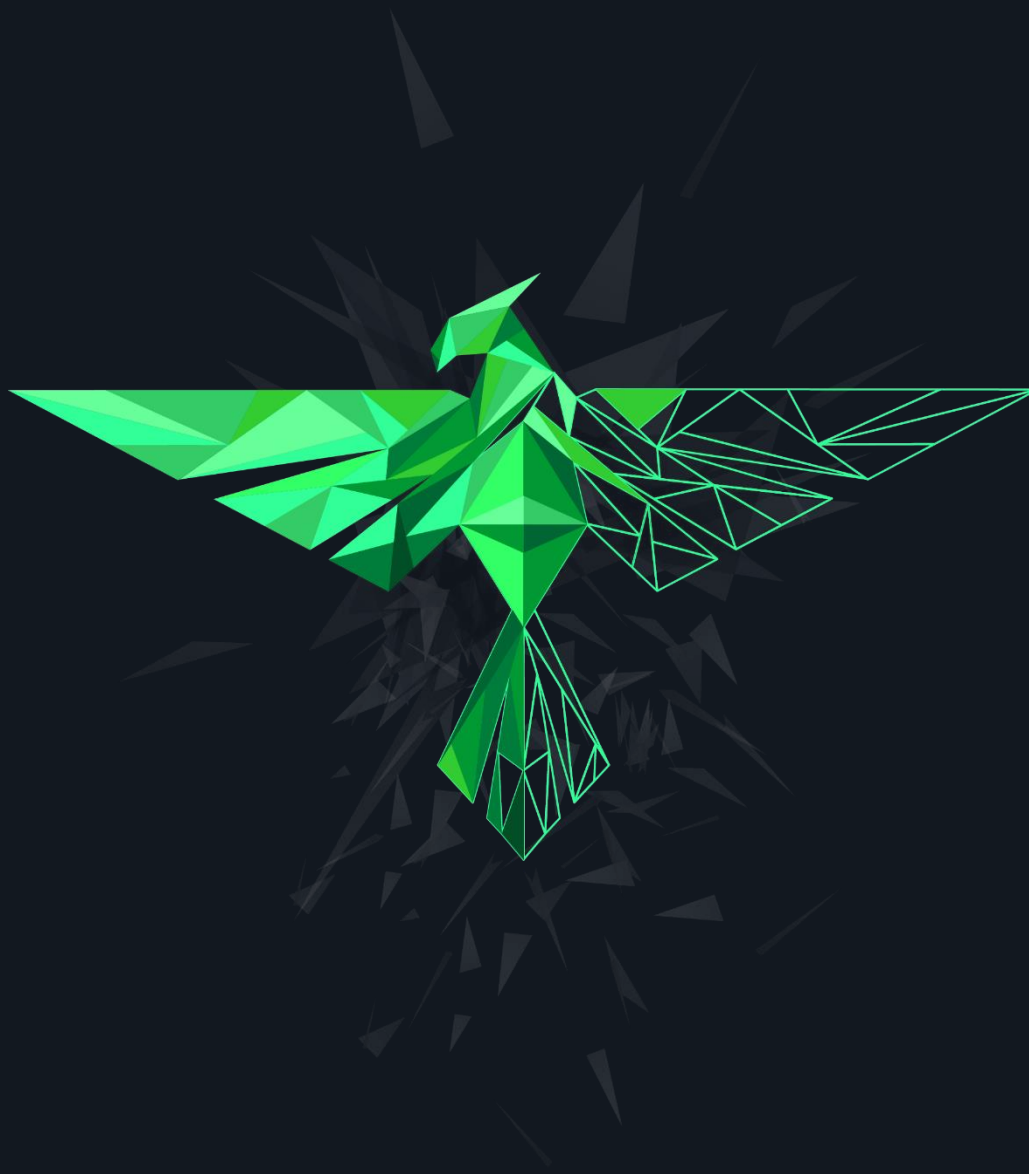
Historical Financial Information

2018 Expenditures $USD					
	Q1 2018	Q2 2018	Q3 2018	Q4 2018	F2018
Overhead & Management	$15,095	$24,259	$28,955	$36,456	$104,764
ETC Summit	$0	$51,648	$176,485	$261	$228,394
Development	$0	$0	$0	$24,425	$24,425
Protocol	$0	$0	$0	$63,483	$63,483
Comms & Marketing	$11,619	$43,226	$82,352	$29,493	$166,690
Finance	$4,022	$0	$0	$0	$4,022
Infrastructure	$0	$0	$21,240	$21,240	$42,480
Partnerships	$0	$0	$0	$0	$0
Total Spending	$30,736	$119,132	$309,032	$175,358	$634,259

Net (Loss)/Income					
	Q1 2018	Q2 2018	Q3 2018	Q4 2018	F2018
Income	$0	$654,470	$165,668	$236,112	$1,056,250
Operating Expenses	$30,736	$119,132	$309,032	$175,358	$634,259
Net (Loss)/Income	(30,736)	535,338	(143,364)	60,753	421,992
Unrealized (Loss)/Gain on ETC[1]					(72,933)

ETC Cooperative

In 2017, there was $131,864 spent on various marketing related expenses, travel, conferences, and professional fees.

Net (Loss)/Income	
	F2017
Income	$371,505
Operating Expenses	$131,864
Net Income	**$239,640**
Unrealized (Loss)/Gain on ETC	0

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