



2022

Interchain Foundation Report

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# Message from the FC President

Hi! 🌟 It's good to see you here. If you're reading this, perhaps you've been a part of the creation and growth of the interchain - a new kind of internet, of community computers. If not, welcome. Just a few years ago, the interchain was only a vision. Together, we've given birth to a thriving reality.

The interchain is a complex multi-stakeholder ecosystem - an expression of the political economic consciousness of diverse internet communities in the flowering adolescence of a new consensus technology. The interchain is open-source, developers, release cycles; it's node operators, hardware, and peer networks; it's end-users, service providers, and bots; it's organizations, contracts, and DAOs; it's blockchains, mempools, and crypto-economic protocols; its communities, computers, and their inter-relationships.

Throughout much of its history, the ICF published regularly about its efforts to support the birth and growth of the interchain - its blog contains a wealth of information about ICF programs, R&D, and funding activities. But the ICF has also had to navigate significant organizational complexity, and internal turnover, all of which created operational challenges that impeded the regular publication of a formal and detailed annual report for the community. Starting in late 2021, the ICF began significant restructuring and rebuilding, which is culminating today 🎉.

I've served on the ICF's Foundation Council (FC) since its birth in early 2017, first as Vice-President and then as President when Jae, the other Cosmos founder and the President until then, stepped down in mid-2021. As a founder of the Cosmos project, a member of the FC, and a member of the ecosystem, I have sought to guide the ICF and the ecosystem through complex waters to the best of my abilities and in a manner that maximizes the success of a long-term

decentralized and sustainable development community. This has undoubtedly been challenging and has meant I've had to wear many additional organizational hats. From 2016 until 2019, it meant serving as CTO of All in Bits. In 2019, it meant moving to the ICF to serve as its Technical Director. But by the end of 2019, it meant spinning out into a new, cooperatively owned company called Informal Systems, where I serve as CEO. And when All in Bits stepped back as lead developer in 2020, it meant supporting the creation of a new organization, Interchain GmbH (IG), to continue the development of core pieces of the stack. By 2022, IG was being restructured. The decentralized nature of Cosmos development is palpable in its coordination and organizational challenges and in its history.

These challenges are a profound testament to the resilience of our software and the communities that support it - which have thrived, despite it all. Through the collective efforts of many, the Interchain Stack and the Cosmos vision have transformed the landscape of how people build and deploy blockchains. Together we have laid the foundation for sovereign interoperable communities to grow, experiment, and evolve their political-economic expression.

At its core, the ICF's strategy has been to (1) leverage a new kind of blockchain, the Cosmos Hub, to (2) bootstrap a new long-term R&D effort, the Interchain Stack, to (3) support the development of more sustainable and collaborative modes of money and finance. The Cosmos Hub and the Interchain Stack have enabled the internet of blockchains, a decentralized ecosystem of community computers, to come online. As the interchain matures, it must take increasing responsibility for supporting its core infrastructure. And it must turn its attention toward the real-world problems that plague our planet and its people.

These real-world problems are grave threats. But they are also a great opportunity: to use this powerful technology to responsibly empower more sustainable political economies.

In one sense, the core of the Cosmos mission has been achieved - the original whitepaper was shipped by a highly decentralized group of dev teams. In another sense, things have only just begun. Now that the interchain exists, attention turns to further expanding its capabilities. While past software had to bring the interchain to life, new software is born in the interchain, molded by it. Advancements in IBC protocols (ICQ, ICA), integration with other blockchain ecosystems like Ethereum and Polkadot, growth in CosmWasm, the launch of Interchain Security, the release of CometBFT's ABCI 2.0, and other R&D integrating interoperability, consensus, and cryptography are all steps in this direction. There's much more described in the report - the interchain is set to expand in new and exciting ways. Cosmos not only gave birth to the interchain, but aspires to continue leading it by providing state-of-the-art technology and tools for building, operating, and maintaining community computers.

In 2023, the ICF is positioned to focus on the growth and success of the interchain, supporting stakeholders across the ecosystem to improve stability, performance, security, interconnectivity, collaboration, sustainability, and impact. But the ICF also seeks to be a sustainable long-term entity itself and to encourage more sustainable sources of funding and relationships between core dev teams and the community computers that depend on them. As the restructuring begun in late 2021 starts to settle, the Foundation Council is looking to recruit new members who are deeply committed to a decentralized collaborative community, and who have the board-level experience and expertise to lead the ICF in this new chapter of its life.

It is in this vein that, as President of the FC, I'm proud to present the ICF's inaugural publication of its annual report, detailing its activity in 2022, including many of the ways the ICF supports the interchain and some of the organizational changes made along the way. The success of the interchain and its community computers depends on the active participation of a huge number of people and communities. We're so grateful to all of you for your passion and energy in bringing this vision to light. Cheers, to many more years of building this thing together.

- Bucky 🎉



# Message from the BoM Director

The last few years have been eventful for the interchain ecosystem and the Interchain Foundation (ICF). They have brought about significant positive changes to the work we do and how we do it, as well as the challenges that come with those changes.

We are currently revamping the organization's strategy and have begun the overdue work of thinking about the ICF's role in our ever-growing ecosystem. As our ecosystem and technology evolve, so should we.

In 2022, the Interchain Stack experienced unprecedented growth and adoption, being at

Despite the challenges we have faced and continue to face, we have not stopped supporting the growth of the ecosystem.

the center of dozens of new chains. Around each of these chains exists a vibrant community of developers, integrators, and end-users. These sovereign communities of the interchain, and that of the Cosmos Hub in particular, are amongst the most active and passionate in the industry.

In 2023, we can confidently declare that a network of open, decentralized, sovereign, and interoperable blockchains, the Internet of Blockchains, is here. Mission accomplished - and yet, there is so much more in store.

In this report, we will share not only how we supported the ecosystem in 2022, but also the meaningful organizational changes that we have experienced thus far. Throughout this document, you will learn who we are today, the community of teams we work with, and how we operate.

The challenges we are facing are the challenges of bootstrapping a dynamic and vibrant ecosystem. Now, with the internet of blockchains blossoming, we are stepping into a new era for our organization.

Throughout this journey, we have, and continue to actively listen to you. We thank you for your feedback, your support, and your presence in this growing ecosystem. We look forward to continuing working with you to develop the Interchain Stack and the communities that use it.

We strongly believe that the open and free technology that we steward will help leave this world a better place than we found it.

**Maria Gomez**  
Managing Director  
Interchain Foundation

# What is the Interchain Foundation

The Interchain Foundation (ICF) is a Swiss non-profit organization with the mission of promoting and developing new technologies and applications, especially in the fields of open and decentralized software architecture.

Our current focus is promoting and developing the interchain - a large network of sovereign blockchains and associated communities, built on a common technology - The Interchain Stack.

The Interchain Foundation is part of a new breed of organizations that exist mainly to support and promote the free, open-source software that will form the basis of our daily lives in the near future

Our work supports hundreds of chains and apps built using the Interchain Stack and over 50+ IBC-connected blockchains.

As our ecosystem experiences exponential growth, we are continuously adapting to what the ICF needs to become, to best support the long-term growth of a sustainable, interoperable, and sovereign internet of blockchains.

# Our Guiding Principles

1

## Plant the seeds to Change the World

The Interchain Stack enshrines a bottom-up, sovereign but interoperable coordination model to empower communities of any size to claim agency over their economic-political circumstances. When we act, we seek to do so with this in mind.

This means making an effort to understand the complex needs of diverse communities that use our technology and seeking at every turn to empower them to support themselves best.

2

## Strengthen the Roots of Sovereign Interoperability

To empower truly sovereign communities to interact with one another, we ensure that the foundational technological blocks these communities rely on are sound and interoperable, with open source rights and the freedom-to-fork baked in.

In addition to sound technical infrastructure, we also aim to encourage the growth of healthy and sustainable communities that can navigate complex coordination challenges and apply interchain technologies to their localized needs.

3

## Plan for the Long-term

Like the human communities we aim to empower, our impact should be measured in decades, not quarters.

We aim to steward a long-lasting technology and social stack that will outlive the ICF and form the basis of society for generations to come.

4

## Embody Stewardship

The values of open access, decentralization, and sovereignty guide how we support the Interchain Stack.

We support the work of several independent teams that maintain the Interchain Stack in collaboration with the communities of users and external contributors. We empower these teams to make decisions that align with the interchain's core values.

# How we support the ecosystem

As a steward of the interchain and following our guiding principles, we support the development and adoption of open-source technologies at the heart of the ecosystem. These efforts include, but are not limited to:

## Core Areas

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### CometBFT

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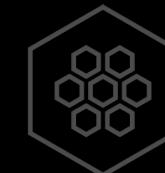
The production-grade universal consensus engine for powering interchain applications. CometBFT is a fork of the Tendermint Core consensus engine we previously supported.



### Cosmos SDK

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The world's most popular framework for building application-specific blockchains. The Cosmos SDK allows developers to quickly and easily deploy app-specific blockchains with a stable, secure, and highly flexible framework.



### Inter-Blockchain Communications (IBC) Protocol

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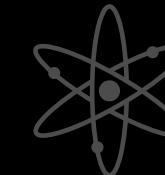
The universal, general-purpose interoperability protocol that allows for arbitrary data transfer across blockchains in a trust-minimized, secure, and extensible manner. It is the most advanced and secure method for blockchain interoperability, currently used by over 50 blockchains.



### Cosmos Hub

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The cornerstone of the interchain, the Cosmos Hub is the home of ATOM and Interchain Security. It serves as an economic hub & key service provider to other chains in the interchain. We help strengthen the Hub's position as the interchain's patron and coordination center.



### Related Tooling

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In addition to the core technologies of the Interchain Stack, we support additional tooling that helps further the adoption and use-cases of the stack - like [CosmWasm](#) and [CosmJS](#), that bring smart contract and javascript functionality to the stack. We also support key infrastructure like the popular [Keplr wallet](#), [Map of Zones](#), and [IOBScan](#) explorers. To tie it all together, we ensure DevRel support exists for all our core technologies, sponsor continuous security audits, and oversee the [Bug Bounty Program](#) for the stack and Cosmos Hub.

# Furthering Adoption

In addition to supporting the core technologies, the ICF funds and coordinates efforts to facilitate the adoption of the interchain through:

## Interchain Builders Program

A holistic accelerator program, designed to guide, mentor, and support teams building innovative solutions, chains, and dApps with the Interchain Stack.

## Delegations Program

A program to utilize a portion of our Proof-of-Stake token holdings across different networks to recognize and reward engineering, community, and public good contributions made by the globally distributed and decentralized validators across the interchain.

## Interchain Developer Academy

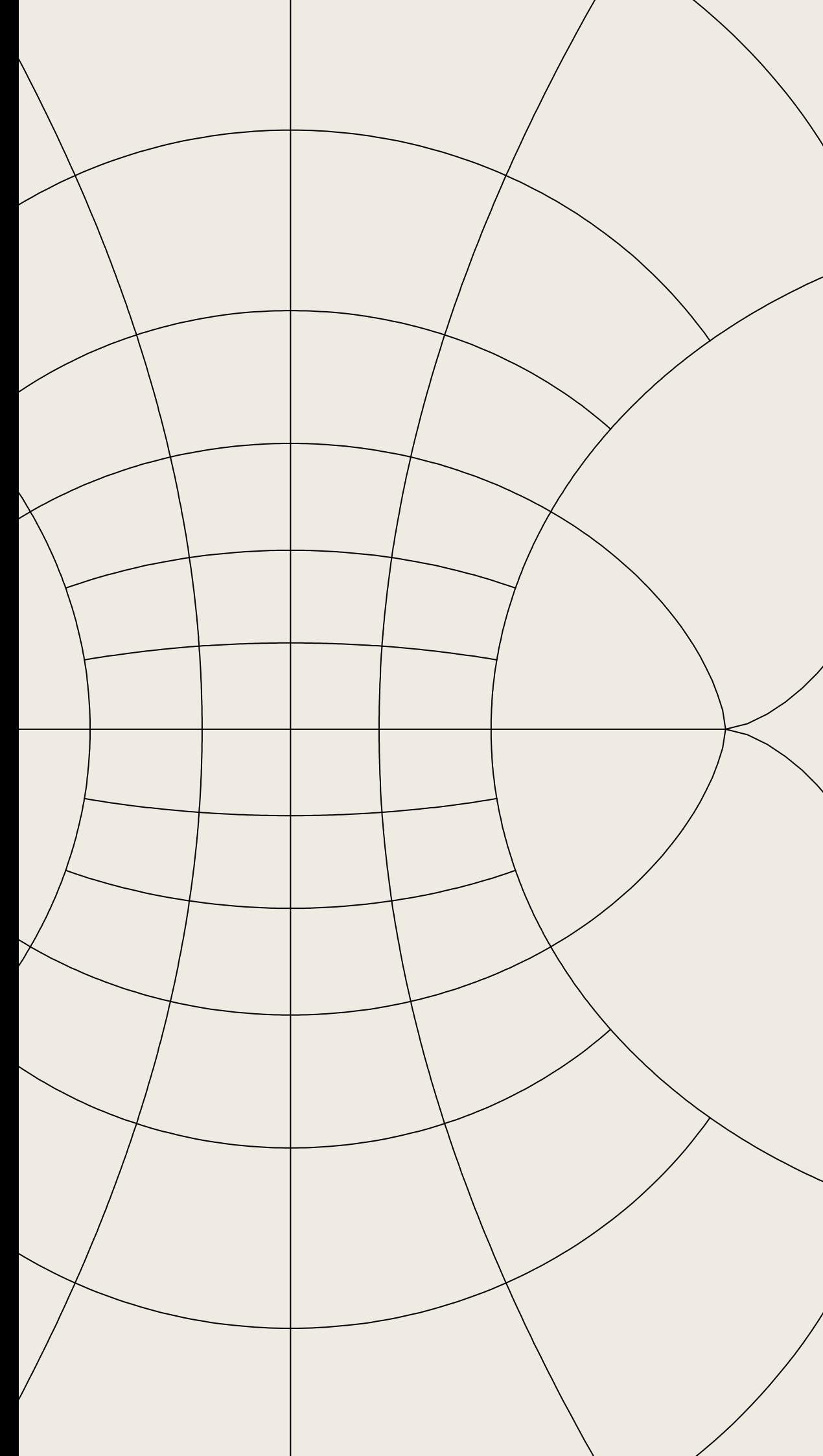
A program to onboard existing web2 and web3 developers onto the Interchain Stack by guiding them through a scaffolded, instructor-led training course.

## Community & Communications

A broad-reaching effort to guide, support, and educate communities on using the solutions built with the Interchain Stack. This effort ranges from support on social platforms to sponsoring events, working with the media, and helping recognize and respond to governance needs.

## Advocacy Program

Working through industry bodies, we help initiate and inform discussions with regulators worldwide in establishing best practices for a future that makes the most of blockchain's potential.



# The teams we work with

In line with our guiding principles, the work that we fund is effectively divided into two groups – teams inside the ICF and the independent, distributed development teams.

## ● A note on recent changes to internal teams

In 2020, the primary developers in Cosmos at that time, All in Bits Inc, took a step back from leading development.

As part of the reorganization of All in Bits Inc, stack engineering and development spread across several organizations. The ICF was one of the numerous organizations that stepped up to fill the void created in their absence.

During 2020-2022, the ICF's subsidiary Interchain GmbH (IG) incubated many of the engineering and product teams working on the stack's core pieces – including Tendermint Core, Cosmos SDK, Cosmos Hub, IBC, and the Interchain Builders Program.

However, our vision is to be a lean organization that coordinates a multi-organization collaborative effort - not to build or maintain every single part of the stack ourselves.

Thus by the end of 2022, resources and teams previously incubated at IG were distributed across different independent entities, including Informal Systems and Binary Holdings. This change included the teams behind the Cosmos Hub, the Cosmos SDK, Tendermint/CometBFT, and the Interchain Builders Program.

Excluded from this effort at distributing development was the team working on the IBC protocol - the core Interchain Standards (ICS) specifications and the IBC-Go implementation. IBC is at the core of the interchain, and while alternatives can exist for other parts of the stack, there is no alternative to IBC. This team remains at the ICF.

## Teams inside the ICF

Currently, the ICF (and its subsidiary Interchain GmbH) consists of five key internal teams:



The ***Inter-Blockchain Communications (IBC) Team***, which works on defining the core specifications that IBC is built on, the Interchain Standards (ICS), and also serves as the primary maintainer and coordinator of IBC-go.



The ***Operations Team***, which provides operational support, such as administrative support, legal, HR, and payroll across the internal organization.



The ***Funding Program Team***, which manages the ICF grants and provides coordination and support to the different teams we work with across the Interchain stack.



The ***Finance Team***, which manages the organization's financial actions, including accounting, financial planning and analysis, tax planning, financial risk management, and treasury management.



The ***Community, Marketing, & Communications Team***, which coordinates the communications for the products and programs we support, offers direct support and education to end-users, helps facilitate discourse and high-level governance needs, and manages our presence at events and representation in the media.

Within the ICF, the leadership comes from two bodies:

### **Foundation Council (FC)**

Our governance body. This body is responsible for setting the overall vision and strategy for our work and monitoring the execution of such vision and strategy.

Current members of the Foundation Council:

	<b>Ethan Buchman</b> (President) Cosmos Co-Founder and CEO of Informal Systems FC President since Jun'21	 
	<b>Brian Crain</b> (Vice President) CEO of Chorus One and Co-Founder of Epicenter FC Vice President since Jun'21	 
	<b>Fernando Pedone</b> (FC Member) Professor at the Faculty of Informatics at University of Lugano FC Member since Jun'20	

### **Board of Management (BoM)**

Our management body. It runs the ICF at the operational level. This body is responsible for executing the vision and strategy set by the Foundation Council, and ensuring that the various distributed development teams are all working towards a common goal.

Current members of the Board of Management:

	<b>Maria Gomez</b> (Managing Director) Former Strategy lead at Aragon BoM Managing Director since Sep'22	 
	<b>Chris Zhong</b> (Technical Director) Former Managing Architect at the Bank for International Settlements BoM Technical Director since Jan'23	 

## A note on the Funding Program

Each year, the ICF selects specialist teams within the ecosystem to lead the development of the core areas and projects we support. These teams are selected based on their skills and expertise, and usually have contributed to the Interchain Stack significantly over the years. We support these teams with significant funding allocated through our Funding Program.

Depending on the needs of the technical roadmap, the teams are invited to submit proposals to us. We evaluate those proposals, solicit feedback from key stakeholders, and approve or deny the funding.

For the year 2022, we established a new Contract and Monitoring Framework to allow the ICF to better measure (i) the impact of the projects we fund within each part of the stack and (ii) the performance of the teams. We are still iterating on this framework, but hope it will form the basis of better reporting in the future.

In addition to these larger funding proposals, from time-to-time, we work with other teams on specific, focused projects within core areas or adoption. Such projects used to be solicited through and funded via our Small Grants Program, which is currently suspended. You can read more about why we suspended it and what teams can do in the meantime [on this blog](#).

## Distributed Development Teams

In 2022, we worked with over 30 independent teams contributing to our various workstreams. Of these 30+ teams, 15 played key roles in leading the development and contribution to specific work streams such as IBC, Cosmos SDK, CometBFT (and Tendermint Core).

While we have categorized these teams by the workstream they were primarily engaged in, the development of the Interchain Stack is fluid – almost all of these teams contributed to areas “beyond” their primary engagement.

	Interchain Stack					Cross product work
	Consensus	Interoperability	Apps framework & Clients	Cosmos Hub	Ecosystem Tools & Growth Marketing & Comms	
Informal Systems	●	●	●	●	●	●
Interchain GmbH	●	●	●	●	●	●
Strangelove Ventures	●	●	●	●	●	●
Regen Network			●			
B9lab						●
Orijtech Inc	●		●	●		
Hypha Worker Co-op					●	
Bianjie		●	●			●
Chainapsis Inc			●			
IXO World AG						●
Confio GmbH		●	●	●		
Iqlusion			●	●		
Vulcanize Inc			●			
Zondax AG			●			
Applied Arts						●

Small Grants Program	Interchain Stack					Cross product work
	Consensus	Interoperability	Apps framework & Clients	Cosmos Hub	Ecosystem Tools & Growth Marketing & Comms	
Grassroots Economic Forum						●
Ztake.org		●				
Oak Security				●		●
Vector Institute			●			●
Gitcoin						●
Composable Finance	●					
Constantin Enea University (Paris)						●
Hong Kong Impact Data Consortium			●			
SimplyVC			●			
Beijing Blog Atelie	●					●
Other Internet			●	●		
Adoriasoft			●			
Datachain		●				
TSD						●
Agoric		●				
Alum Pink			●			
KryptoSeoul (HackATOM Seoul)						●

# 2022 Financial Summary

PHOTO BY ACTIONVANCE ON UNSPLASH

In 2022, we saw significant growth in the adoption of the technology we steward.

Dozens of new and innovative chains were launched with the Interchain Stack, including Stride, Evmos, Crescent, and Sommelier to name a few, and dozens more are preparing to go live.

The influx of developers and users to the ecosystem led us to prioritize the growth of key developer teams to accommodate the needs of the growing ecosystem.

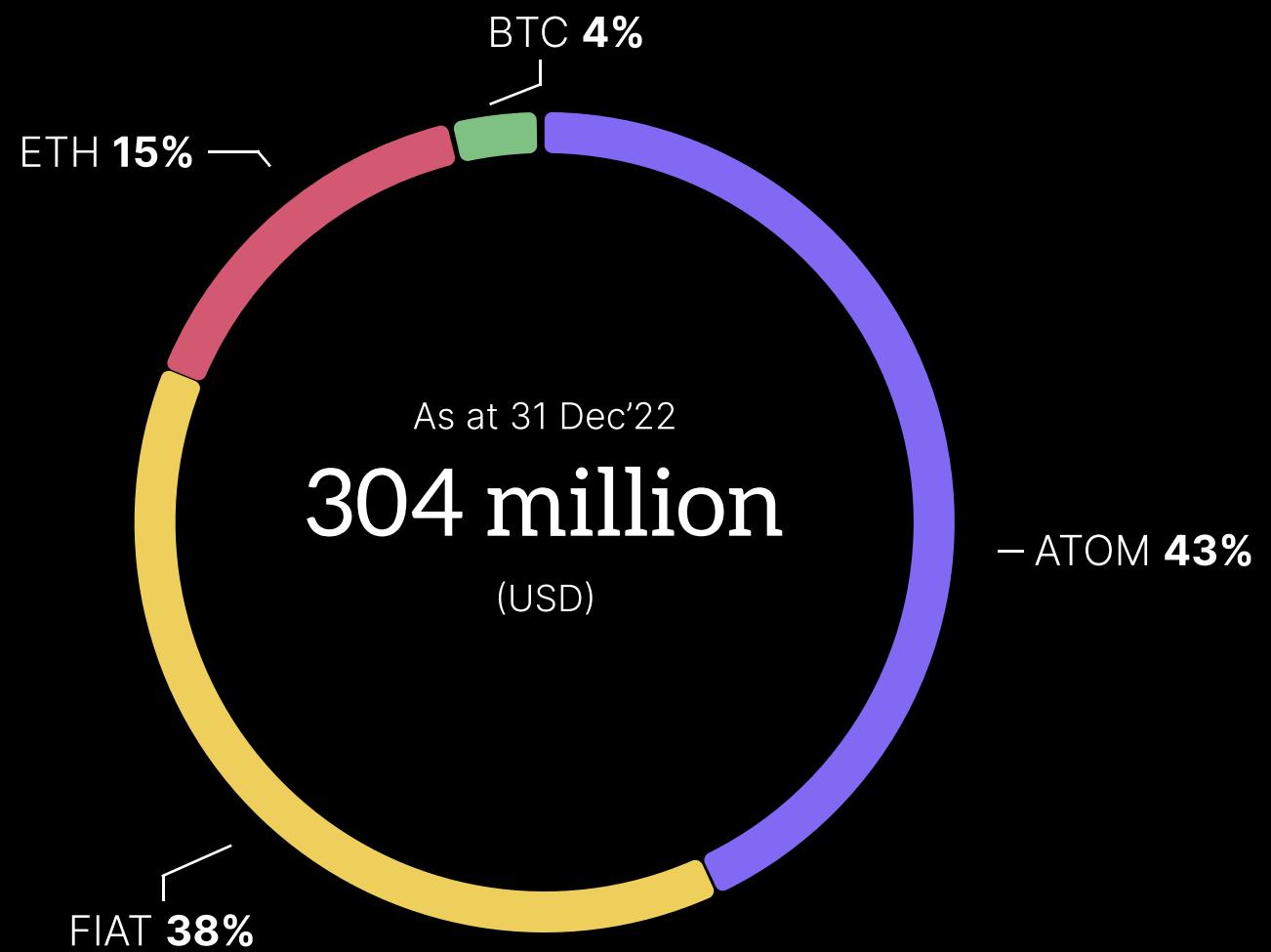
We faced challenges from rapid growth in a complex and dynamic environment: coordination and communication difficulties,

organizational shifts and expansion, and the necessity to respond quickly to previously unknown needs. These challenges were expounded when the macroeconomic landscape shifted, necessitating further rapid changes to our strategy.

As we evaluate the past year, we have identified various aspects of our funding program and strategy that need to be improved alongside our proactive approach to sustainable stewardship. We need to be more focused and have a reduced scope for funding if we want to be able to support the development of key public goods in the long term.

# Treasury Snapshot

As of 31st December 2022, the total value of the ICF's portfolio was \$304M. As the ICF keeps a substantial portion of its portfolio in crypto, total valuation is currently down substantially from its previous highs.



## Fiat Assets

Our financial strategy is to maintain at least 18 months of the current burn in fiat - to weather market instability and ensure we have enough funds to support core development. To that end, \$113M of the treasury (37.2%) is held as fiat or fiat equivalent. These holdings are diversified across a mixture of readily available funds, fixed-term deposits, and investments in traditional financial instruments. Fiat holdings increased with spending and market conditions, and given recent budget adjustments, now account for closer to 24 months burn.

## Crypto Assets

Crypto assets totaled \$191M, representing 62.8% of our treasury. Of these crypto assets, ATOM makes up the majority of our holdings at 68% of our total crypto assets by value, with ETH and BTC making up another 30% of crypto assets (19% of total assets).

## Investments

1.6% of our crypto assets, approx \$3.06M, comprises other crypto assets from across the interchain, including tokens from Osmosis, IRISnet, Agoric, Juno, Regen Network, Gravity Bridge, and IXO. These have been obtained as a result of airdrops and investments.

Throughout its existence, the ICF has made early-stage investments in projects seeking to develop strategic niches that expand and increase the

capabilities and adoption of the interchain. Some of our recent investments include Penumbra, Celestia, Anoma, Forte Labs, and Althea Network..

Since most of these projects are still in development, it is difficult to update the valuation of our investments, and as such, they are not reflected in this Treasury Snapshot. However, as of 31st December 2022, the ICF has invested a total of \$9.5M in early-stage companies and projects.

## Overview of Spending

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The total ICF expenditure for 2022 was \$54.1M.

Of this, \$48.4M was spent across over 30 different teams working on core development. In the sections below, we detail our expenditure across teams and our workstreams.

The remaining \$5.7M consisted of operational expenses and the cost of support functions across all our work. This includes all expenditures related to legal, accounting, and financial services; organization-wide subscriptions and fees for third-party services ranging from data services, operational tools, and technical infrastructure; and all operational and administrative staff salaries.

# Spending per Team

The table below outlines our funding for the entities we engaged with in 2022 across our tracked workstreams.

The ICF and the teams it works with follow an extensive process to ensure that core deliverables are met, work scope is defined, and funding details and staffing is finalized when providing funding. Every quarter, the teams we work with provide reports to us with OKRs and financial updates.

The below table includes the funding details for teams in accordance with the above process.

While we have categorized these teams and their staff by the workstream they were primarily engaged in, the development of the Interchain Stack is fluid – almost all of these teams and their staff contributed to areas “beyond” their primary engagement.

	FTEs per workstream*					Funding Totals		
	Consensus	Interoperability	Apps Framework & Clients	Cosmos Hub	Cross Product Work	Total Team Size	Core Agreement (fiat, USD)	ATOM Bonus (ATOM)
<b>Informal Systems</b>	4.1	14.7	3.0	8.8	12.3	42.9	\$13.4M	279.1k
<b>Interchain GmbH</b>	3.5	6.8	2.8	5.5	5.0	23.6	\$6.8M	212.1k
<b>Strangelove Ventures</b>	1.2	6.7	2.8	0.4	2.0	13.1	\$3.7M	106.3k
<b>Regen Network</b>	-	-	7.0	-	-	7.0	\$2.4M	66.4k
<b>B9lab</b>	-	-	-	-	6.4	6.4	\$2.1M	41.5k
<b>Orijtech Inc</b>	1.9	-	7.9	1.1	-	10.9	\$1.4M	40.2k
<b>Hypha Worker Co-op</b>	-	-	-	3.0	-	3.0	\$1.0M	21.7k
<b>Bianjie</b>	-	2.8	2.6	-	2.1	7.5	\$967.7k	25.9k
<b>Chainapsis Inc</b>	-	-	5.8	-	-	5.8	622.7k	17.2k

	FTEs per workstream*						Funding Totals		
	Consensus	Interoperability	Apps Framework & Clients	Cosmos Hub	Cross Product Work	Total Team Size	Core Agreement (flat, USD)	ATOM Bonus (ATOM)	
<b>IXO World AG</b>	-	-	-	-	6.3	6.3	676.1k	0	
<b>Confio GmbH</b>	-	0.3	1.4	-	-	1.7	\$386.1k	9.7k	
<b>Iqlusion</b>	-	-	0.4	1.6	-	2.0	\$332.7k	17.5k	
<b>Vulcanize Inc</b>	-	-	1	-	-	1	\$231.3k	3.2k	
<b>Zondax AG</b>	-	-	1.7	-	-	1.7	\$173.1k	0	
<b>Applied Arts</b>	-	-	-	-	0.2	0.2	\$123.4k	3.5k	
<b>Smaller Grants</b>	-	-	-	-	-	-	\$960k	0	
<b>Team Total</b>	<b>10.7</b>	<b>31.3</b>	<b>36.4</b>	<b>20.4</b>	<b>34.3</b>	<b>133.1</b>	<b>\$35.3M</b>	<b>845.3k</b>	
<b>\$ Total</b>	<b>\$4.6M</b>	<b>\$12.6M</b>	<b>\$11.7M</b>	<b>\$7.8M</b>	<b>\$11.5M</b>	-	-	-	

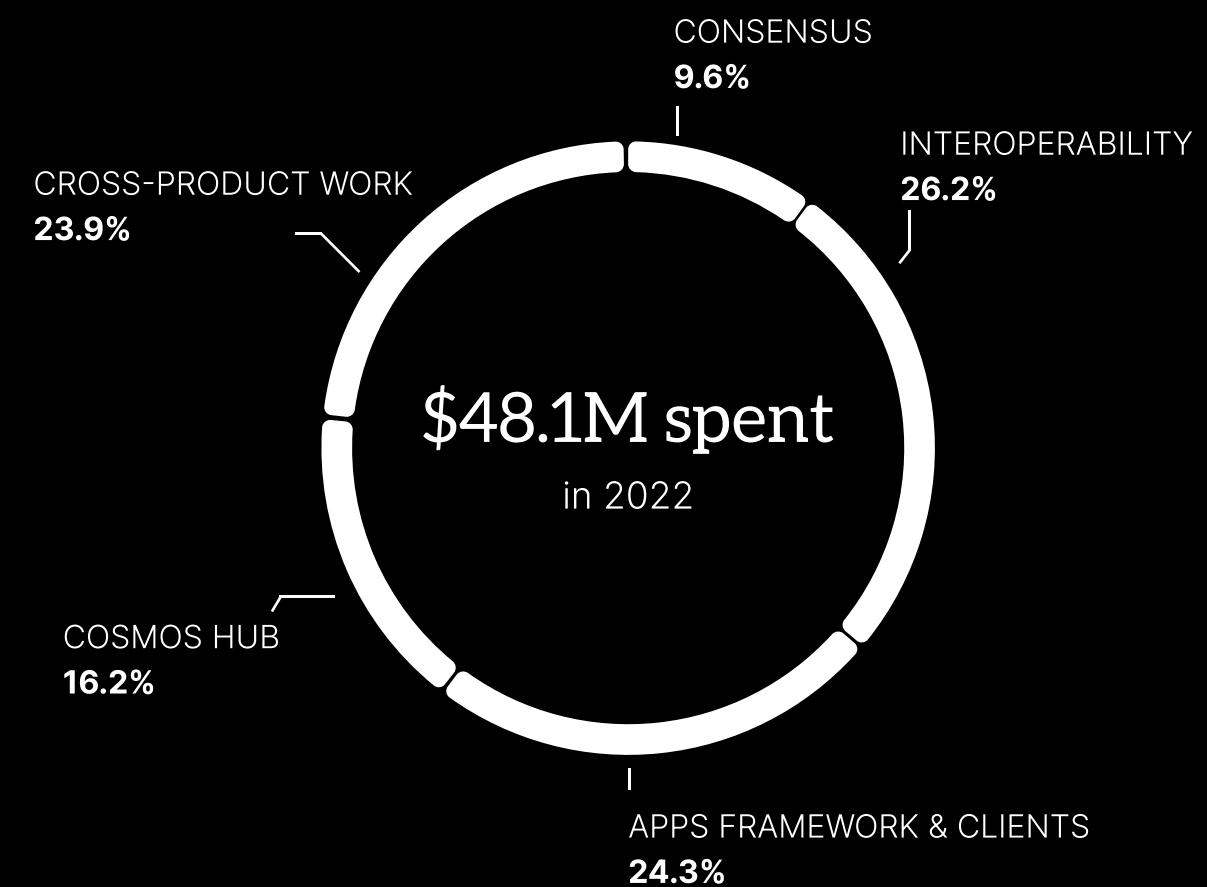
\*The data in the table below lists “Full Time Equivalent (FTE)” for each entity assigned to the different workstreams. FTEs are computed as a person working 255 days per year and include an allocation for non-engineering and support staff.

One of the key changes to our Funding Program, which we are working on for the 2024 financial year, is implementing standardized rates across the different teams as feasible. Read more in the section ‘What can you expect from the ICF in 2023’.

## Spending per Workstream

Given the velocity of development across the 30+ teams we worked with in 2022, it is difficult to summarize all aspects of their work.

Below are some of the year's key developments in each of our core workstreams, including cross-product work on ecosystem-wide tooling and growth. Detailed information can be found in each team and product's roadmap and release notes, and specific funding details can be found in the section above.



## Consensus

### 5 teams involved

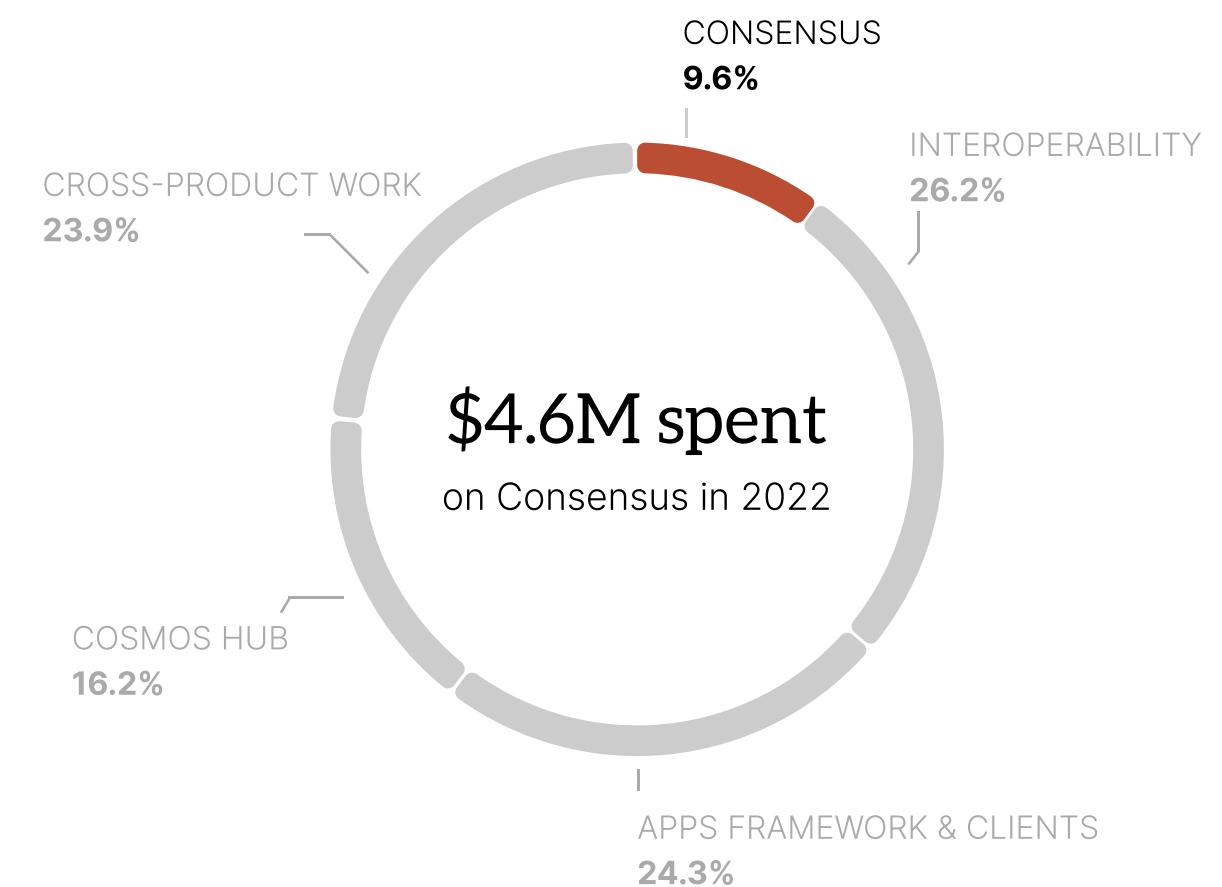
Interchain GmbH, Informal Systems, Iqlusion, Orijtech, Strangelove

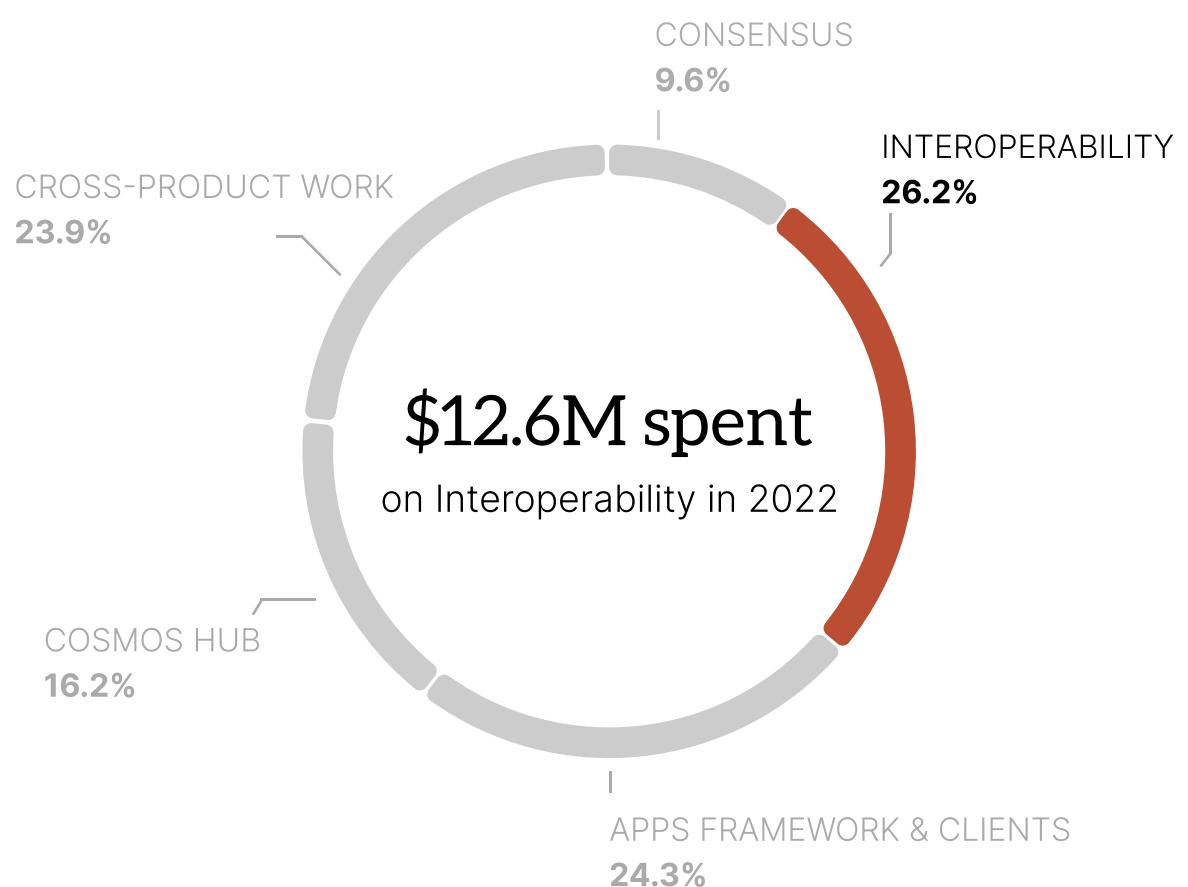
This is the crucial software at the heart of the interchain, which powers over 50 sovereign blockchains.

Throughout 2022, the ICF funded work related to the core development and maintenance of the consensus engine - Tendermint Core, now CometBFT - as well as various tooling related to it.

A key focus for the year was the development of ABCI 2.0 – which provides more control for applications at the consensus layer – adding programmability to every step of the consensus process. ABCI 2.0 enables functionality and use-cases such as transaction ordering, on-chain MeV, oracle data with byzantine fault tolerance guarantees, and threshold encryption. [Learn more here](#).

Other key developments in 2022 include the release of Horcrux v2 and TM-KMS; continuous security audits and benchmarking of the consensus engine; as well as developer support for teams building with the interchain's consensus engine.





## Interoperability

### 5 teams involved

Interchain GmbH, Informal Systems, Bianjie, Strangelove, Confio

The ICF is committed to the IBC protocol, and we deem it to be the solution for blockchain interoperability. Our focus in 2022 involved further developing the Interchain Standard (ICS) specs for new usecases, and ensuring the IBC protocol is composable and secure.

The expenditure in this category includes everything related to IBC — the development of the protocol specifications, the different IBC implementations in go-lang, rust, and solidity, as well as the development of IBC Light Clients and Relayer software. It also includes costs related to testing, security, and developer relations.

Key developments in 2022 include the releases of [Interchain Accounts](#), [Fee Middleware](#), [Interchain Queries POC](#); the finalized [Middleware Design specs](#); significant updates and development to the [Hermes Relayer](#), the [Go Relayer](#), [IBC testing framework](#), and [automated e2e testing tool](#); supporting the development and maintenance of the [TS Relayer](#), [Interchain NFTs](#), [Map of Zones](#) and [IOBScan](#).

The ICF also supported work done in developing light clients and other tools for expanding IBC to the Polkadot, Near, Hyperledger, and Corda ecosystems, as well as extensive work on chains using EVM and WASM.

## Apps Framework & Clients

### 11 teams involved

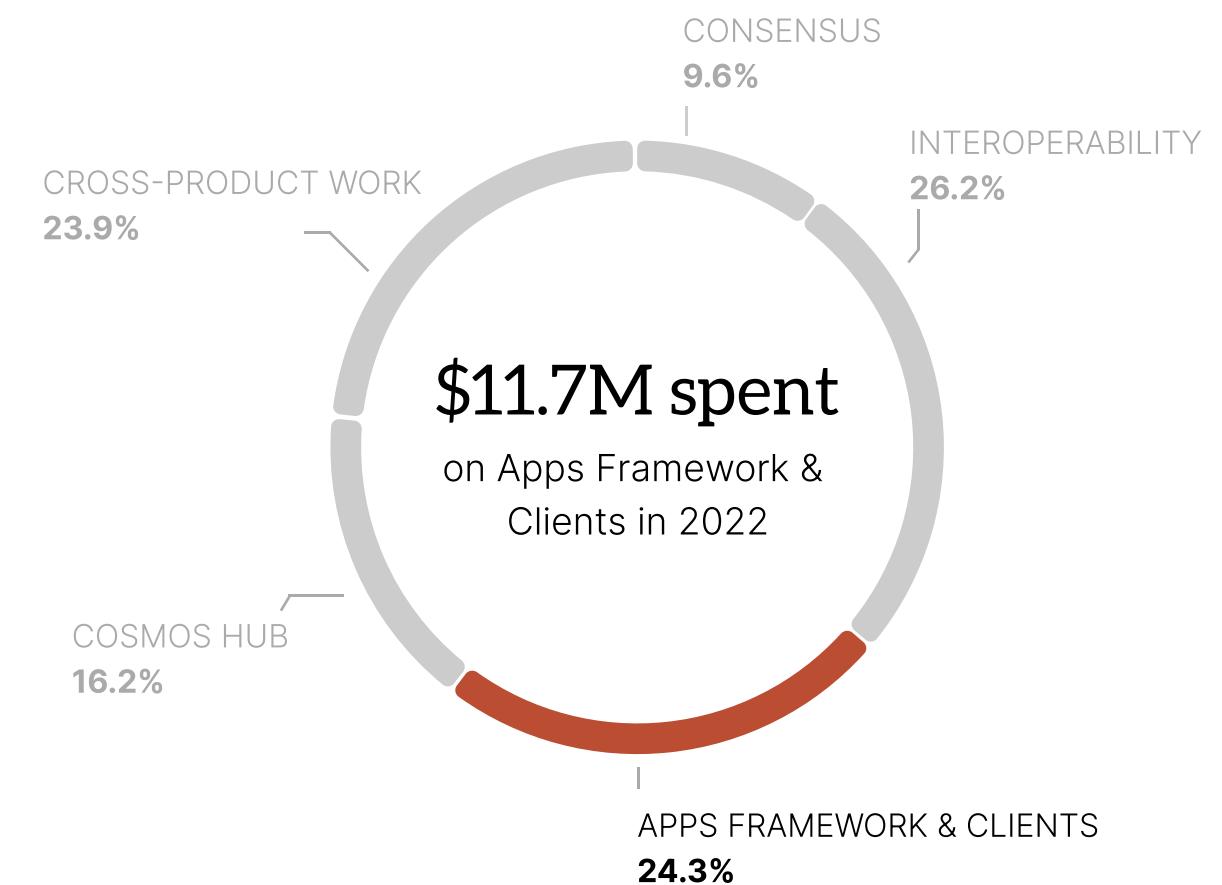
Interchain GmbH, Informal Systems, Regen Network, Iqlusion, Vulcanize, Orijtech, Bianjie, Strangelove, Chainapsis, Confio, Zondax

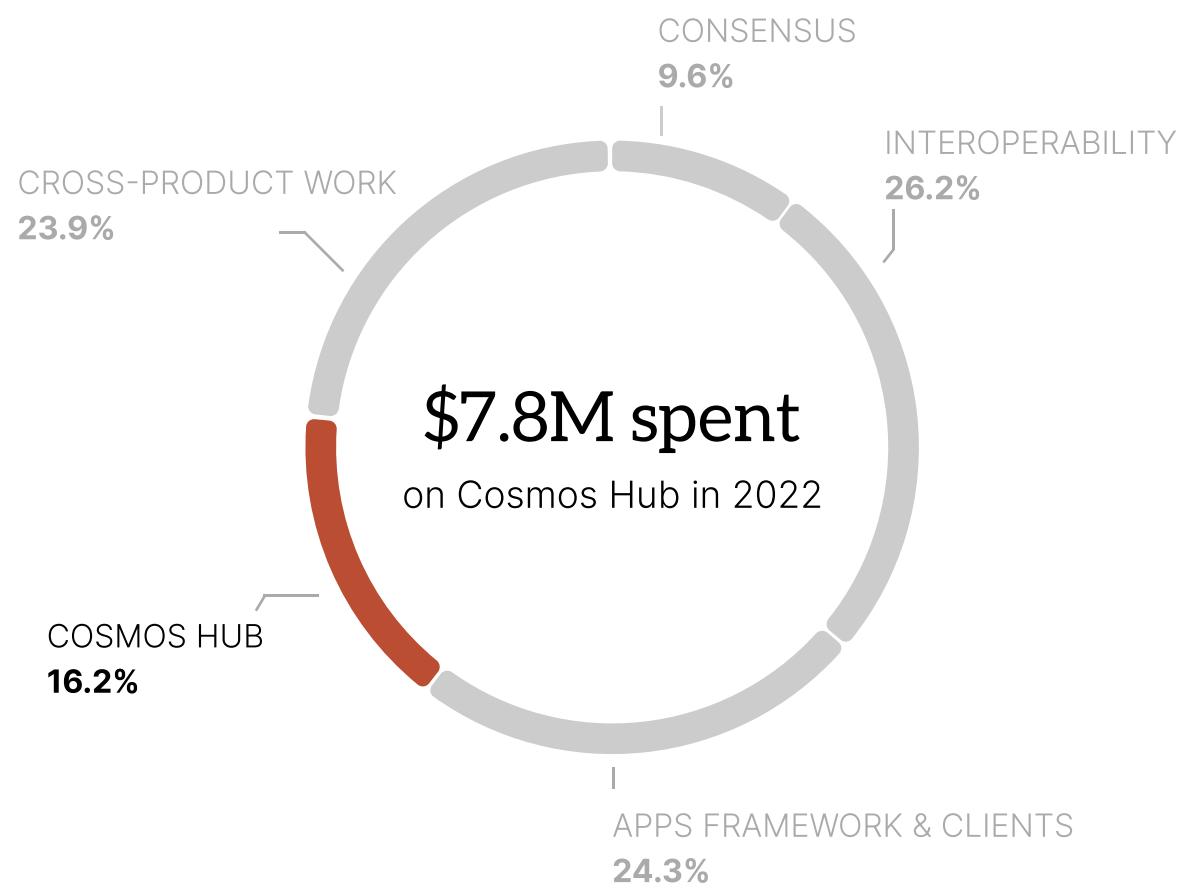
In 2022, the ICF continued to fund app frameworks and libraries which allow developers to easily build, deploy, and customize application-specific blockchains, and reduce time to market in a stable, secure, and performant way.

We supported the Cosmos SDK – the world's most popular framework for building application-specific blockchains, as well as the maintenance of CosmWasm and CosmJS.

Key developments in 2022 include engineering of [Authz](#), [Gov](#), [Groups](#), and [Liquid Staking](#) modules for the [Cosmos SDK](#); major changes to the Cosmos SDK codebase; continuous integration with new versions of Tendermint Core and IBC; release and continuous development of [CosmWasm](#), [CosmJS](#), and [Wasmd](#).

The ICF also funded related tools such as the [PANIC tool](#), the [Cosmos App on Ledger devices](#), the [Groups-UI](#), and the [Keplr wallet](#); as well as continuous security audits and testing of the Cosmos SDK and key-related modules.





## Cosmos Hub

### 6 teams involved

Interchain GmbH, Informal Systems, Iqlusion, Orijtech, Strangelove, Hypha

Overall, the ICF helped to support the development and maintenance of Cosmos Hub, its testnet and auditing needs, as well as business development activity related to Interchain Security.

The Cosmos Hub is a cornerstone of the interchain, currently supporting the development of all interchain technologies. It has the potential to act as a primary economic and social coordination zone for a self-sufficient, prosperous, and impactful interchain.

A key achievement during the year was the development of [Interchain Security](#), which allows new chains to deploy faster and more securely by utilizing the Cosmos Hub's market cap and validator set. As well as developing the technology, the teams ran a successful testnet - [Game of Chains](#) - which incentivized participation from validators via rewards from the Cosmos Hub Community Pool. Through business development outreach and leading efforts in the community via initiatives like [proposal 72](#), the team secured the first cohort of customers for the technology.

In addition to this, throughout the year, the teams worked on initiatives that bring strong potential to the Hub, such as engineering related to bringing the [Govs and Groups SDK module](#) into the Hub, allowing for more expressive and flexible voting and governance proposals; Launching Interchain Accounts functionality on the Hub, and developing the specs for the [Chain Naming Service \(CNS\)](#); Active and continuous moderation of the [governance forum](#), supplementing [proposal 63](#), as well as research into and first implementations of governance best practices, including a [definition for No with Veto](#); Management of the Theta, Lambda, Rho and Interchain Security testnets, including onboarding new testnet users, supporting validators, and ensuring testnets run smoothly.

## Cross-Product Work

### 6 teams involved

Interchain GmbH, Informal Systems, Bianjie, Strangelove, IXO, B9lab, Applied Arts

*This work not only helped catalyze the growth of the interchain but also helped sustain that growth as end-users and developers joined the growing interchain.*

Some of the activities in this workstream:

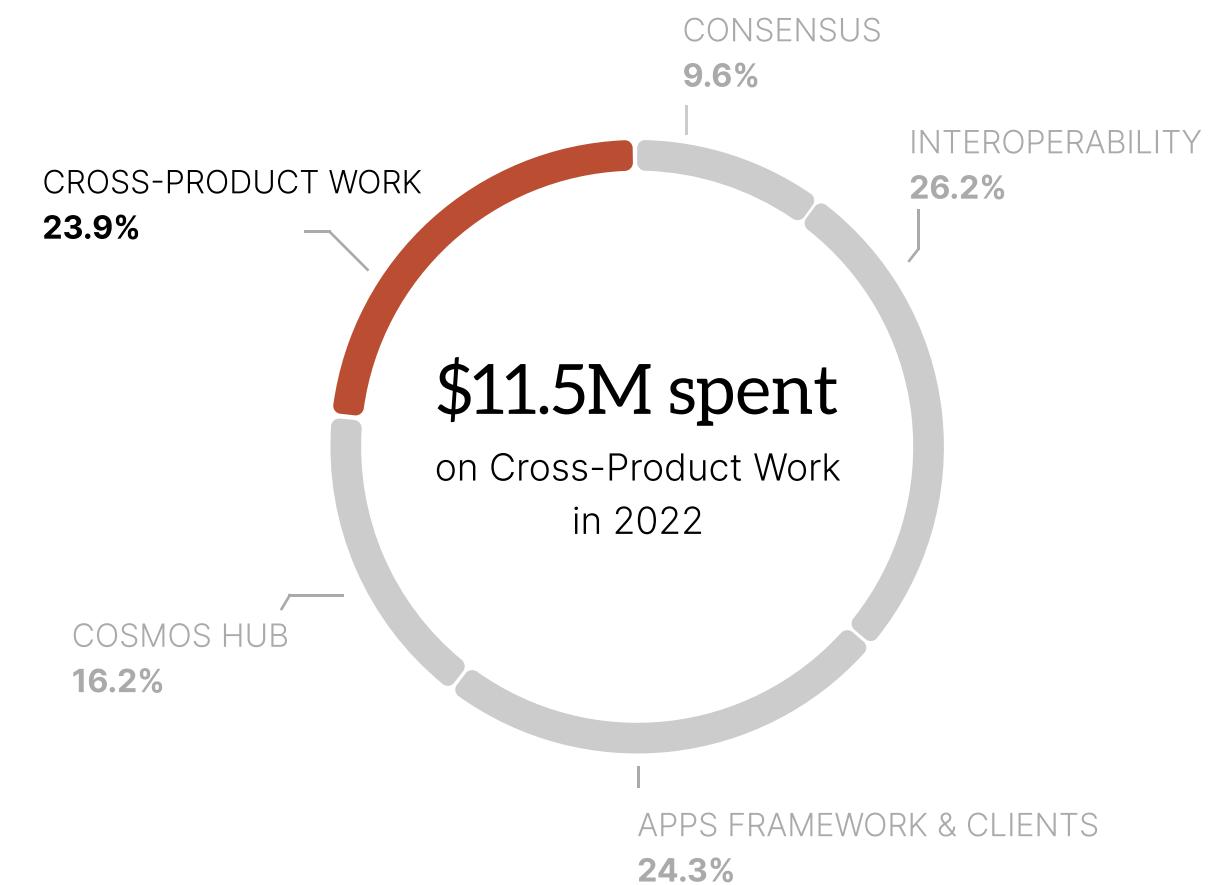
- Development of tooling including:**
  - Stakooler - a tool for generating reporting data for stakers and validators released
  - Multisig Tooling v.0.3.0 released
  - Cosmos Tax CLI
  - AtomKraft - E2E testing
  - Gitcoin integration
- Interchain Builders Program**

An on-going program to mentor, advise and support the launch of new chains and dApps building with our core technologies – the team has thus far onboarded over 50 teams into the program.
- Business development** work by Bianjie for the Interchain Stack in China
- CoFi** - Multilateral Trade Credit Set-off app MVP
- Sponsorship of Key Events**

This included supporting HackAtom Seoul and Cosmoverse 2022.

**Interchain Developers Academy**  
An on-going program to onboard existing web2 and web3 developers onto our core technologies, which guides existing developers through a structured instructor-led training course. We ran 3 successful cohorts in 2022, onboarding over 300 developers onto the Interchain Stack.

**Marketing, Community & Communications**  
A broad-reaching effort to promote the work, brand, and mission of the ICF. This work includes support on social platforms, events, media liaison, and community management.



What can  
you expect  
from the ICF  
in 2023

2022 has been a challenging year. The ICF has a new team that is trying to improve within the organization's different areas: Funding Program, IBC-go development, growth, comms, and operations.

From the funding perspective, we will be working on the following areas:

**A focused and strategic funding program.** Together with the relevant teams, we are setting up the technical priorities of the Interchain Stack. What are the key pieces that need stable funding for the ecosystem to thrive? We will share these priorities with the community.

We will work with domain experts, teams, and the community to **release public roadmaps** that clearly articulate our collective priorities and outcomes. Technical priorities and roadmaps will be crucial steps toward improving resource allocation and coordination among the different teams working on the Interchain Stack.

We will begin the process of **further refining the scope of our funding program by 2024**. Our aim is to ensure longevity in the funding for the core elements of the Interchain Stack — software that over 50 chains rely on. As well as prioritizing our own spending, we are seeking to encourage sustainable, decentralized funding. In 2023, we will be looking to coordinate core funding with other entities within the interchain to support the growth of a self-sustainable ecosystem.

We are also aiming to increase the accessibility of our funding process, but before we are ready for this, we need to work on the **ICF Contract and Monitoring Framework**. For the year 2022, we established a new Contract and Monitoring Framework to allow the ICF to better measure (i) the impact of the projects we fund within each part of the stack and (ii) the performance of the teams. We are still iterating on this framework, but hope it will form the basis of better reporting in the future.

Also in late 2022, the ICF took the strategic decision to redistribute core development between different independent entities and to begin developing an **ICF Stewardship Program** - to improve clarity over project stewardship. In particular, stewardship responsibilities for Tendermint (and now CometBFT) and the Cosmos Hub moved from IG to Informal Systems, while those for the Cosmos SDK and the Interchain Builder's Program moved to Binary Holdings. This year we will be working on the Stewardship Program to define roles, authorities, and responsibilities clearly. This will increase the public accountability of the different teams.

From the operational perspective, we will be working on the following areas:

We need more members in the Foundation Council (FC) to grow its capabilities and perspective - to ensure that the scope of the expertise in the FC can enable us to fulfill the ICF mission. As such, we will be seeking to **expand the Foundation Council** this year. We are interested in Council Members that can bring crypto-financial, governance, community, and management expertise. We are currently scoping the roles and expertise that we need on the FC, and will share more about the roles and the recruitment process in due course. If you are interested or know of people who would be a good fit for the Foundation Council, we would like to hear from you.

Similar to the FC, we are seeking to **expand our the Board of Management (BoM)**, ensuring all operational areas are given time and attention. Similar to the FC expansion, we are scoping our the roles we need on the BoM and will share more information on this soon.

We will be seeking to improve and optimize our **Delegations Program**. While the first cycle of ATOM delegations under the new program is now underway, we still need to produce effective systems to monitor our delegations and the contributions of validators. With iterations to both our internal processes and the way we will gather contribution information, the next cycle of delegations, slated for late 2023, should be a much more efficient process.

And last but not least, from the technical perspective, here are some key things we are looking forward to in 2023:

#### **Key technologies to be delivered in 2023**

Like the rest of the community, we are looking forward to the launch and adoption of ground-breaking technologies that the teams have been working on:

- Upgrades to ABCI for CometBFT;
- The v0.47 release of Cosmos SDK earlier this year significantly enhanced its modularity. We look forward to appchains adopting this release in the coming weeks.
- Channel Upgradability, Interchain Queries, and Interchain NFTs from IBC;
- A 'Cosmos App' implementation in Trezor (hardware wallet) as well as native Cosmos SDK support for MetaMask

#### **Launch of multiple Consumer Chains on Cosmos Hub**

The first implementation of Interchain Security - Replicated Security - already launched on the Cosmos Hub. We look forward to the onboarding of the first few Consumer Chains in the coming weeks and months. The first batch will likely feature Neutron, Stride, and Duality, followed by the second batch introducing Comdex, Fairblock, and SimplyStaking. The third batch is expected to bring Polymer and Skip on board. This carefully orchestrated approach will provide the community with increased functionality and interconnectedness, further solidifying the ecosystem's growth and potential.

#### **Expanding the interchain through IBC**

It's hard to imagine that IBC is just two years old! Even so, IBC accounted for \$30.3 billion in secure cross-chain transfers in 2022 across over 50 active chains. This year, we look forward to IBC expanding into Polkadot, Avalanche, and Ethereum. [Read more about these here](#).

#### **Cross-chain Security Program**

In 2023, we are set to launch an extensive program to bolster the security and reliability of the ecosystem. The program will take a comprehensive approach - from thorough security audits for major stack components to ensuring the resilience of critical infrastructure. Additionally, the program will feature a robust incident response plan, providing prompt and effective mitigation of threats as they emerge. Reflecting the exponentially larger size of the interchain today compared to when we first set up our bug bounty program, the ICF will also be increasing the size of the bug bounty - with the hope of further incentivizing researchers and developers to identify vulnerabilities and contribute to the ongoing security of the Interchain Stack.

#### **Public Testnets, Events & Hackathons to drive development**

With the [Game of Chains](#) and [Game of NFTs](#) testnets wrapping up on the Cosmos Hub, we look forward to the adoption of both Interchain Security and Interchain NFTs. We will be supporting community-organized hackathons and representing the Interchain Stack at key events, in a bid to engage and encourage web3 developers to build in the interchain.

#### **Interchain Builders Program turning 1-year-old**

Launched just 8 months ago, the program has received 170 applications thus far, onboarding 50 teams into the program. As the program matures, we look forward to accelerating a greater number of projects building in the interchain. [More on the Interchain Builders Program](#).

#### **Interchain Developers Academy producing more developers**

In just 6 months since its launch, with its instructor-guided training, the Developers Academy has already produced 300+ developers building with the Interchain Stack. We are hoping to expand on this success with the [fourth cohort of the Interchain Developer Academy](#). With registration for this cohort opening just a few days ago, we have already received over 400 applications - whose coding abilities will be assessed before being offered a fully-funded seat in the academy. [More on the Interchain Developers Academy](#).

As you can see, there is a lot of work we need to do – both to improve ourselves and to better support the interchain. The voice of the community will play a crucial role in our new team's ability to accomplish the above initiatives.

We are currently conducting and will continue to conduct listening sessions with our various stakeholders – from users and integrators, to chain builders and stack developers – we are opening feedback channels with those who had not previously been able to reach us easily

We want the ICF to embody the principles of the interchain – an open entity that thrives in a collaborative environment.

We are looking forward to working with you in this new chapter of our evolving organization.

Meanwhile, for comments, feedback, and everything else, please get in touch with us at [hello@interchain.io](mailto:hello@interchain.io).

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