



# The First Real World Computer

## The Internet Computer Blockchain



Speaker

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You just  
downloaded this  
deck from  
cyberspace!



Blockchain URL

# What ICP fixes for web3

Decentralized

0.01%



Tokens and tiny  
clips of data

Centralized

99.99%



Nearly all content and data,  
web serving & most logic

Decentralized



The devices and  
crypto keys of end users



We want to own and run service X

I built web3 service X ON blockchain



Wait! What?

## Cost of storing this deck on-chain

INTERNET COMPUTER



**\$0.04 / year**

SOLANA



**\$826 / year**

ETHEREUM



**\$533,000**

Alien tech efficiency enables blockchain to store and process dynamic content like social profiles and chat, and files, using smart contracts



Open Chat  
SocialFi



The Internet Computer blockchain is now processing  
almost a billion transactions a day

10,000+

TX / second

850,000+

TX / day

<https://dashboard.internetcomputer.org>

The volume of smart contract computation (i.e. blockchain usage)  
is measured by the cycles consumed

GROWTH IN CONSUMPTION OF CYLES (PAST 4 MONTHS)

550%

<https://dashboard.internetcomputer.org>

# Blockchain Singularity

When the majority of the humanity's online systems  
and services run 100% on blockchain

**Chain Key Crypto** enables the Internet Computer to support **true web3**  
with a fundamentally different design

# Environmental meltdown?

The opposite: the Internet Computer is a blockchain that can run compute more efficiently than traditional IT. The world can protect the environment by building on a blockchain

efficient · hackproof · unstoppable · autonomy



# An authentic early crypto project

- DFINITY runs the largest team of top cryptographers in tech...
- It was founded in 2016 to continue World Computer research begun in 2015
- It became the largest employer of senior Google Research engineers
- It is a Swiss not-for-profit foundation
- Research centers in Zürich + SF

**1600+**

research papers

**100 000+**

academic citations

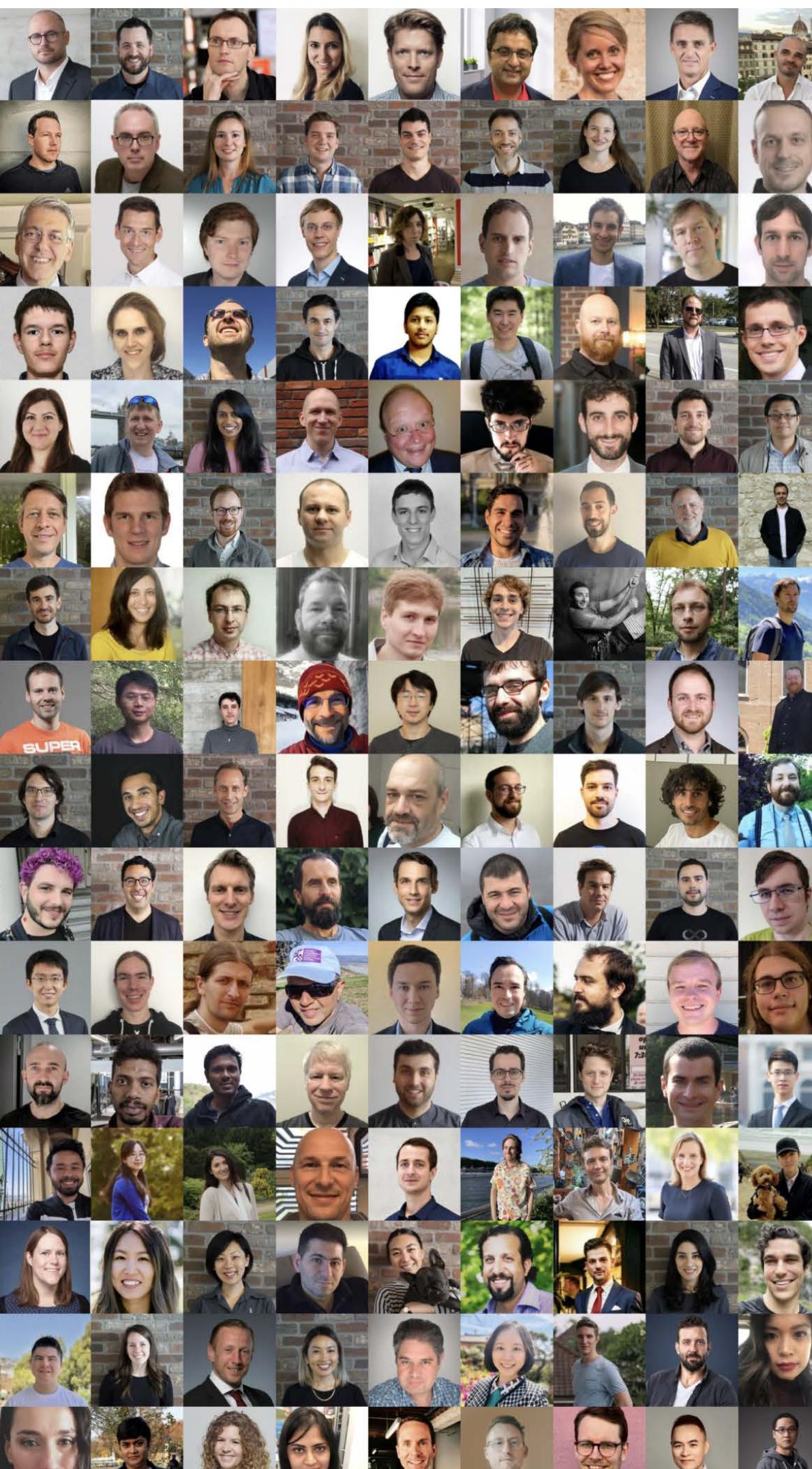
**250+**

technical patents

Google

IBM.

facebook



Imagine building on a blockchain that emits less CO2 than traditional IT

# Internet Computer is green



Security



Liveness



Autonomy



Censorship resistance



Decentralization



Programmability



HTTP



Chain Key TX

# Sustainability

Game changer

## Energy Consumption

Lowest energy consumption per tx  
of any blockchain.

Autonomous Organizations

## Self-Sustaining

World's largest DAO controlled network  
(NNS), with spin-off framework (SNS).

Funding Projects

## Community Fund

Community driven and community funded!  
Over \$5 million for devs building on IC

**Scalability, Utility, and Growth** with low carbon cost.

# Deep Dive: IC Energy Consumption

## Achieving our sustainability goals

Measured the energy consumption  
of nodes in 17 different subnets

Extrapolated to all nodes

Methodology by Carbon Crowd  
Audited by Fingreen AI

Average hourly energy consumption per node (kWh) **0.232**

Number of active nodes **518**

Number of all nodes **726**

Annual consumption of active nodes (kWh) **1'052741**

Annual consumption all nodes (kWh) **1'475'464**

## Low Carbon footprint

Weighted the node average by the emissions factor of node location

Equivalent to 1.5 railcars' worth of coal burned

5,500 transactions per second  
More than billion blocks

During a single year, the IC was calculated to have

**1,052,741 kWh**  
of energy consumption

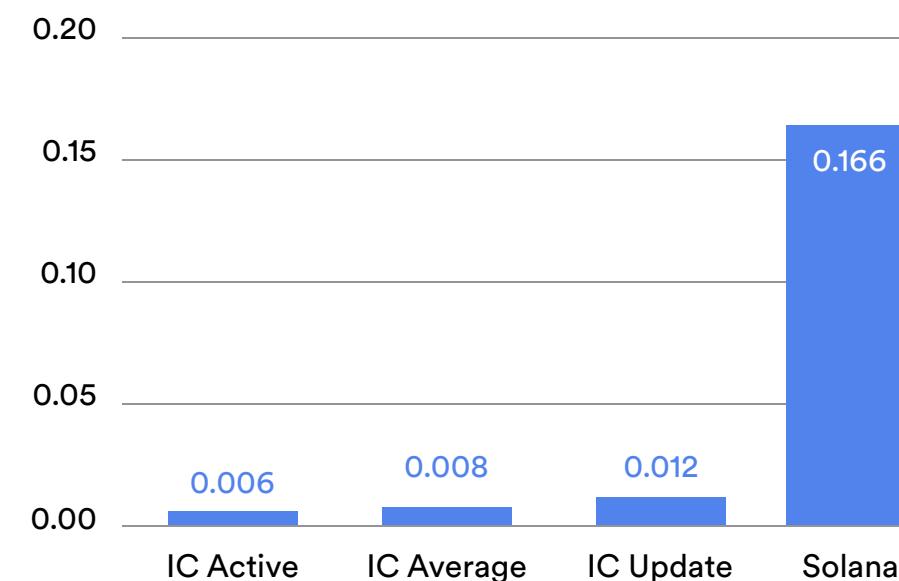
**275 tonnes**  
of carbon emissions

**<100** average US homes  
roughly equivalent

# Internet Computer is the most sustainable by transaction

A lesson in scaling

Energy Consumption (Wh) per Transaction



**29 X**

lower consumption than next best

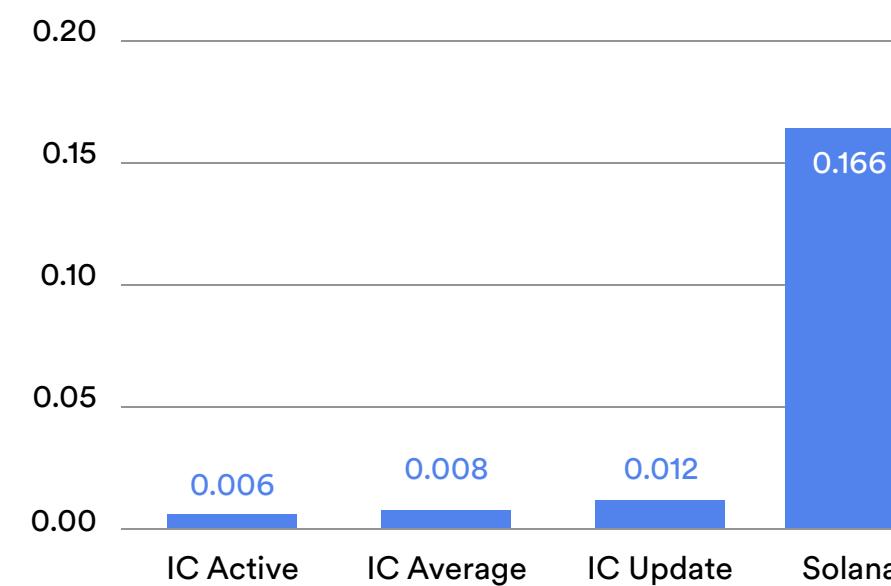
**6000 X**

lower consumption than Cardano

# Internet Computer is the most sustainable by transaction

Another lesson in scaling

**Energy Consumption (Wh) per Transaction**



**29 x**

lower consumption than next best

**6000 x**

lower consumption than Cardano

**350'000'000 x**

lower than Bitcoin



# Sustainable & Profitable

## Real-time consumption

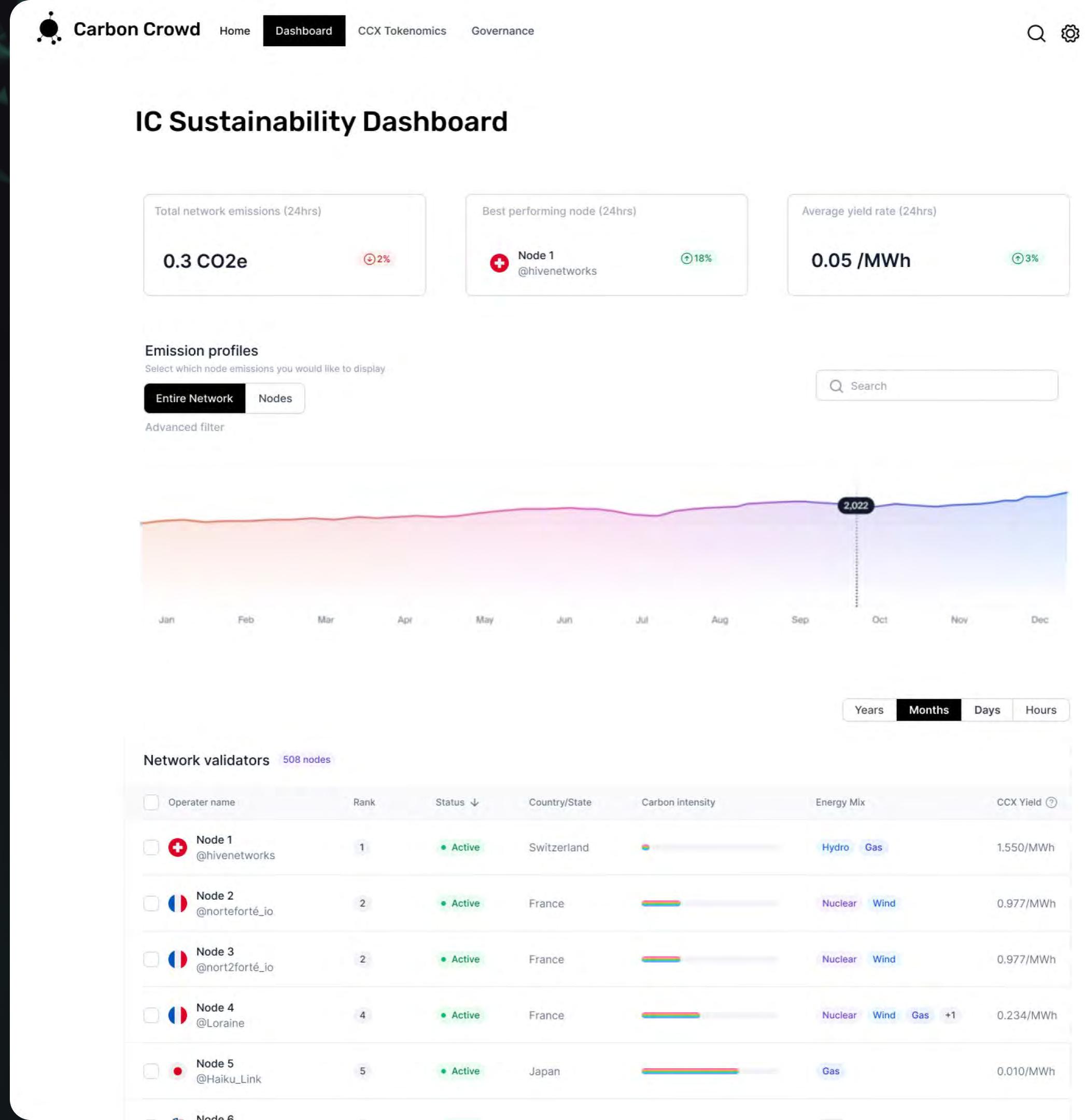
Develop real-time measurement of the IC's energy consumption and associated carbon footprint.

## Green incentives

Establishing a leadership group to champion sustainability initiatives.

## Decarbonized subnets

Development a fully decarbonized subnet on the Internet Computer.



[internetcomputer.org/features/sustainability](https://internetcomputer.org/features/sustainability)



Sustainability report and latest news

 #whenthelightscomeback