



# Scaling Up AI for Good

@oceanprotocol  
Trent McConaghy

# SUSTAINABLE DEVELOPMENT GOALS





**Q: can AI help?**





## AI + Satellite projects







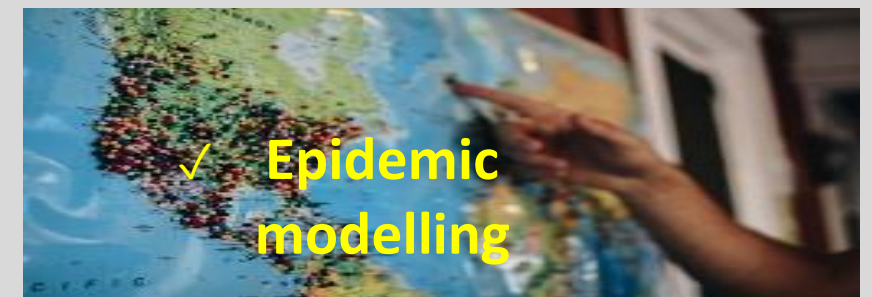
## AI + Smart Communities



✓ Tailored smart city



✓ Give a voice to the voiceless



✓ Epidemic modelling



# 2017: AI FOR GOOD SUMMIT



XPRIZE®



United Nations  
Educational, Scientific and  
Cultural Organization



United Nations  
Environment Programme



for every child



The UN Refugee Agency



United Nations Office for  
Disarmament Affairs



United Nations  
Development Programme



World Intellectual Property  
Organization



United Nations Office for Disaster Risk Reduction



Office of the High Commissioner



United Nations Office on Drugs and Crime



United Nations Institute for  
Training and Research



Investing in rural people



Comprehensive Nuclear  
Test Ban Treaty Organization



United Nations Population  
Fund



United Nations  
Institute for  
Disaster Prevention and Relief



United Nations  
Industrial Development  
Organization



United Nations  
Development Programme



United Nations  
University



United Nations Institute for  
Disarmament Research



United Nations



United Nations Economic  
and Social Commission  
for Europe



United Nations  
Office for Outer Space Affairs



United Nations Operations  
and Logistics Service



United Nations

UN DESA



**Q: can AI help?**

**A: Yes! #AIforGood**



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**A: Yes! #AIforGood**

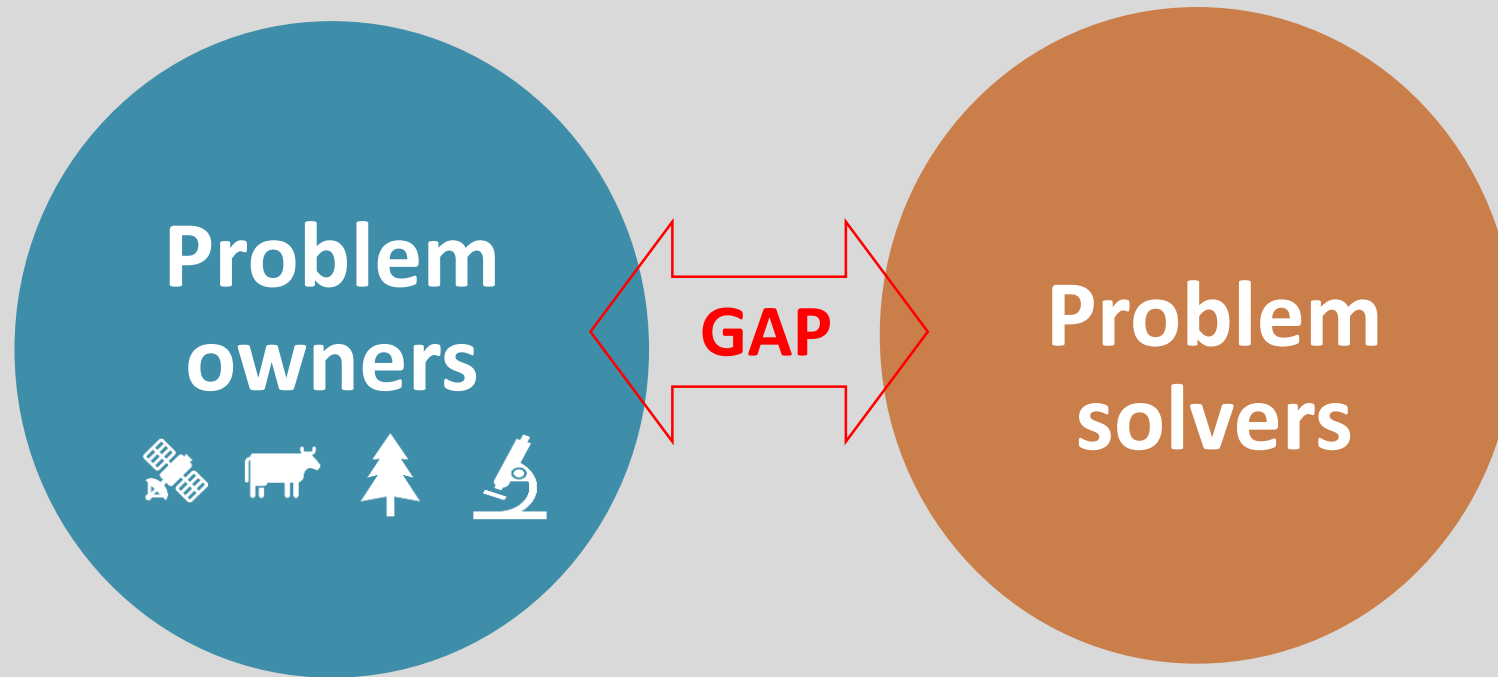
**But...**



**Problem  
owners**



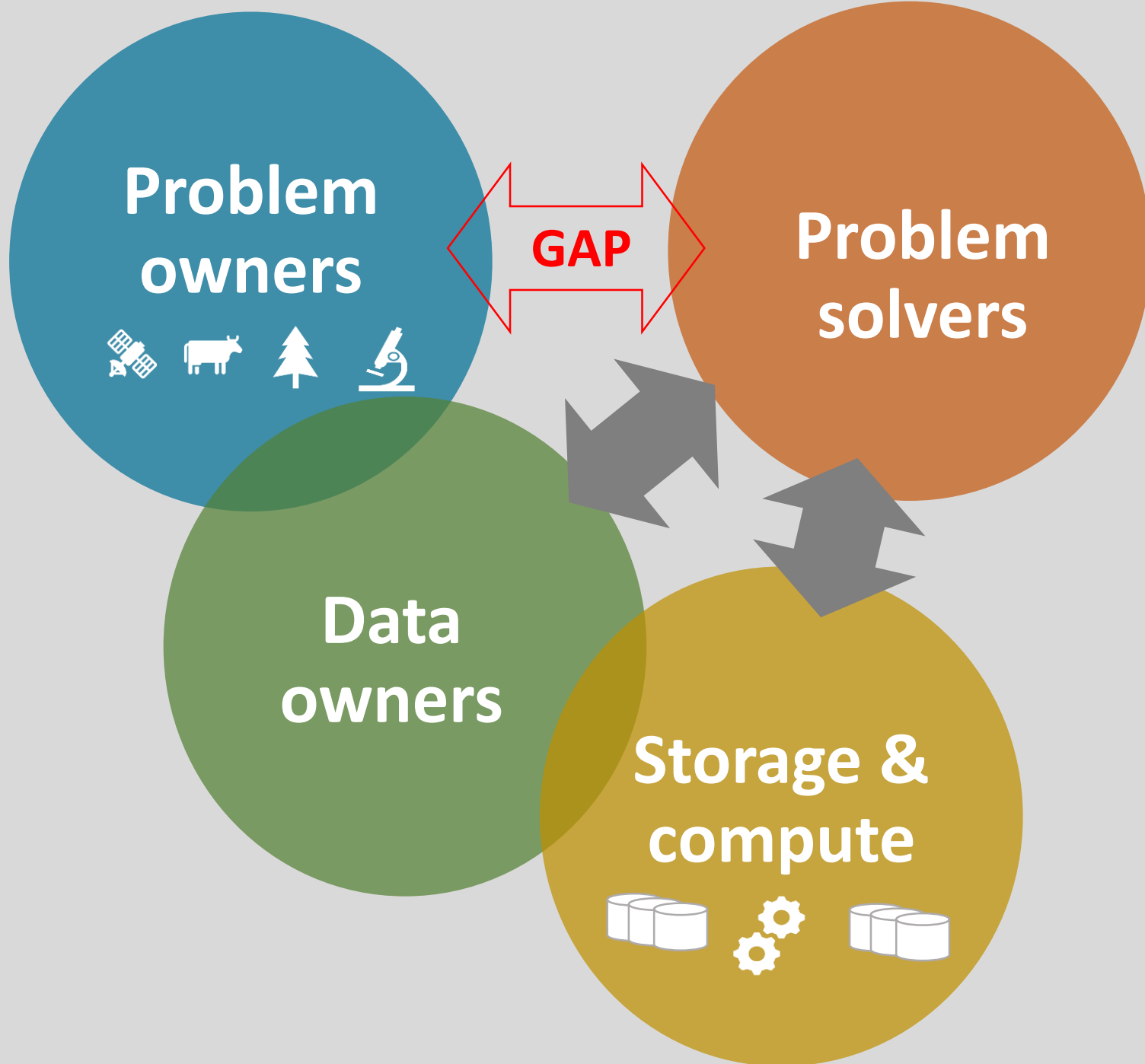
**Problem  
solvers**





# Scaling #AIforGood







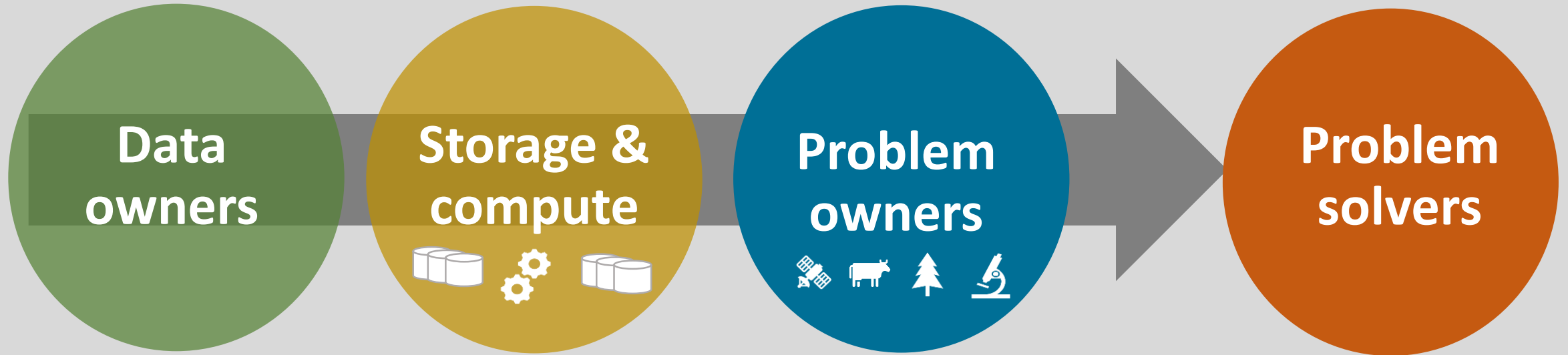


**Connective tissue: public utility network**

# Blockchains are public utility networks







**Blockchain public utility network for the AI Commons**

Have data	Have AI (Want data)	Have data	Have data	Have AI (Want data)
Have AI (Want data)	Have data	Have AI (Want data)	Have AI (Want data)	Have data
Data marketplace	DM	DM	DM	DM
DM	DM	DM	DM	DM
DM	DM	DM	DM	DM
DM	DM	DM	DM	DM

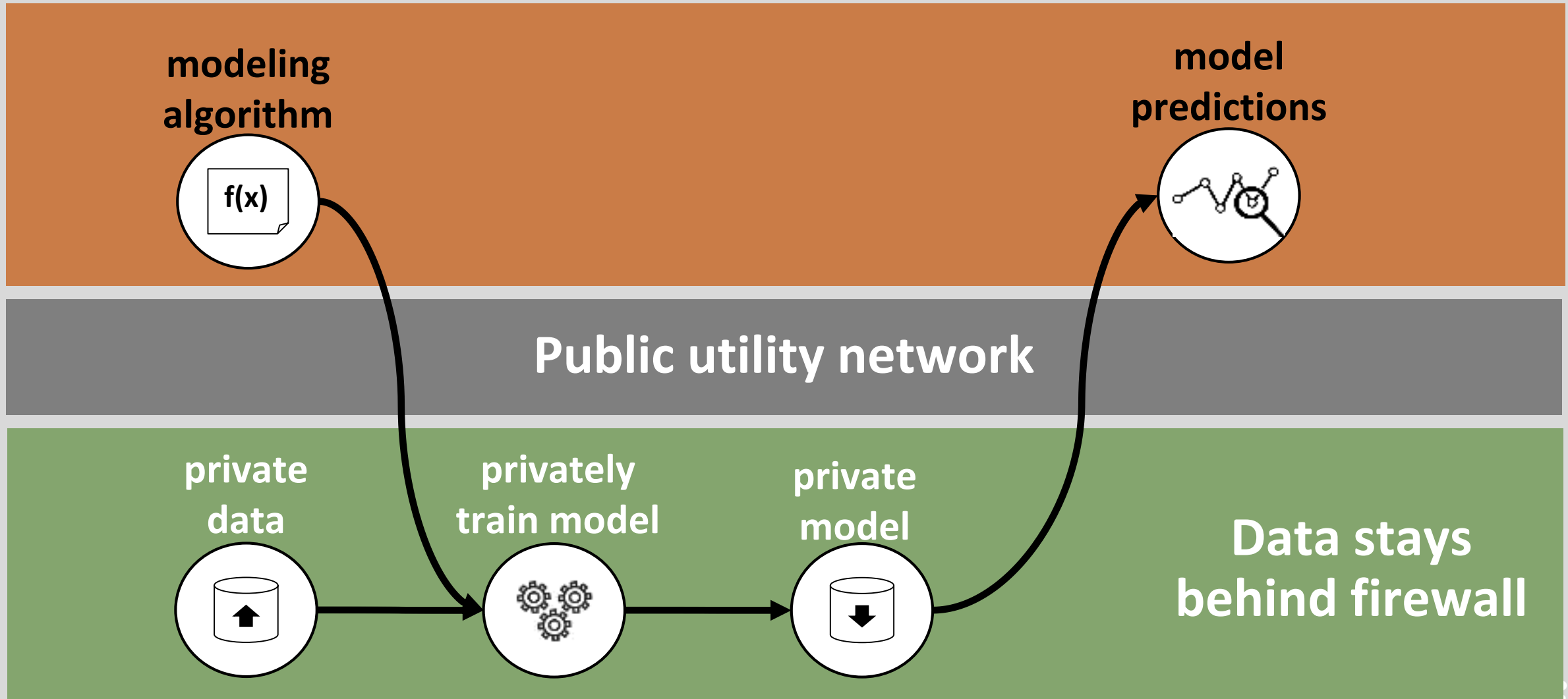
**Catalyze the commons *and* profit-making, via a substrate for a thousand marketplaces to bloom.**

**Block rewards to incentivize data supply**  
**Add to data commons, make \$**

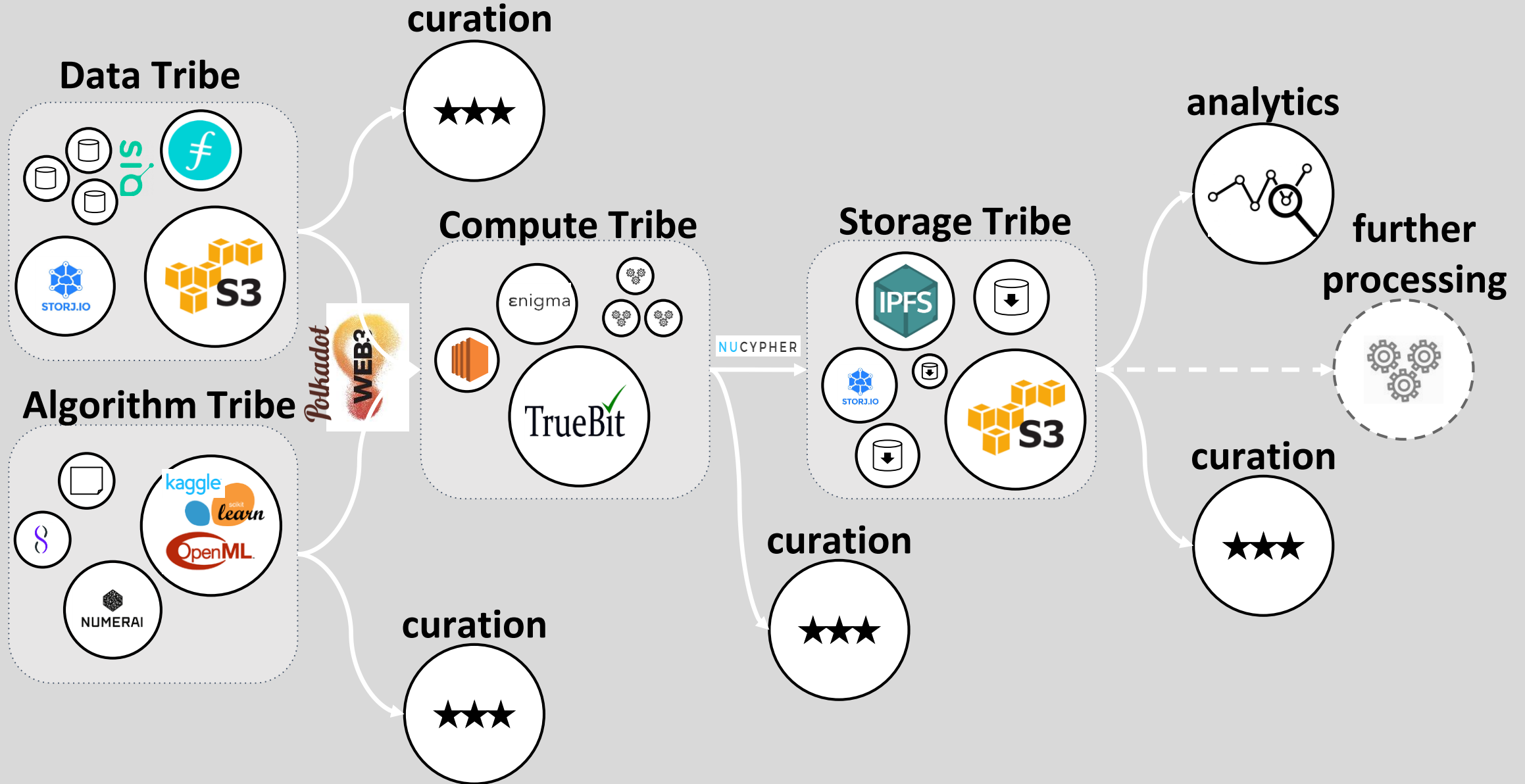




# Preserve privacy: bring AI compute to the data



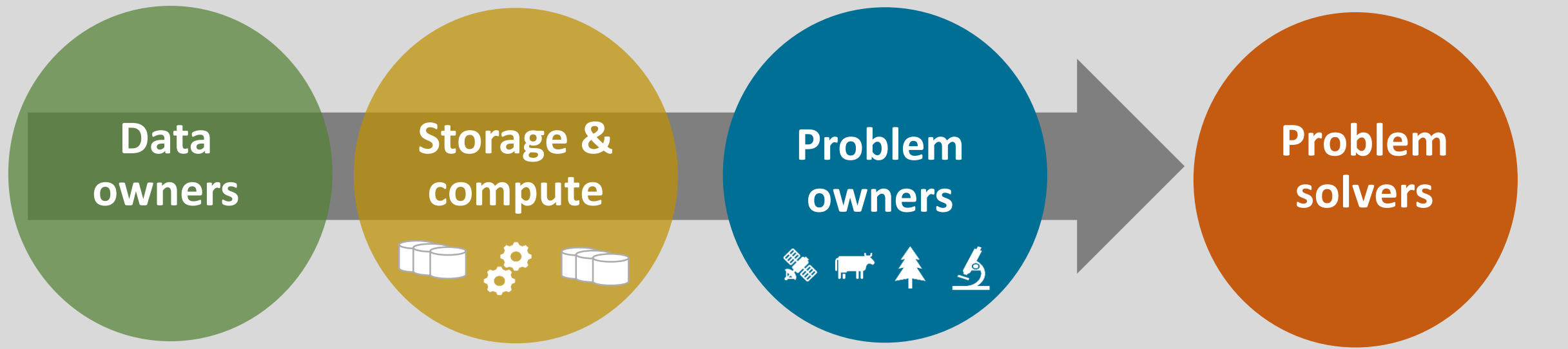
# Ocean does Decentralized Orchestration





# User Experience





**Service provider frontends**  
For data commons,  
Storage & compute markets

**AI Commons  
Frontend**  
Specify Problems


**Data science tools**

↓  
Data,  
storage,  
compute


↑  
Network  
rewards

↓  
Jupyter  
notebooks

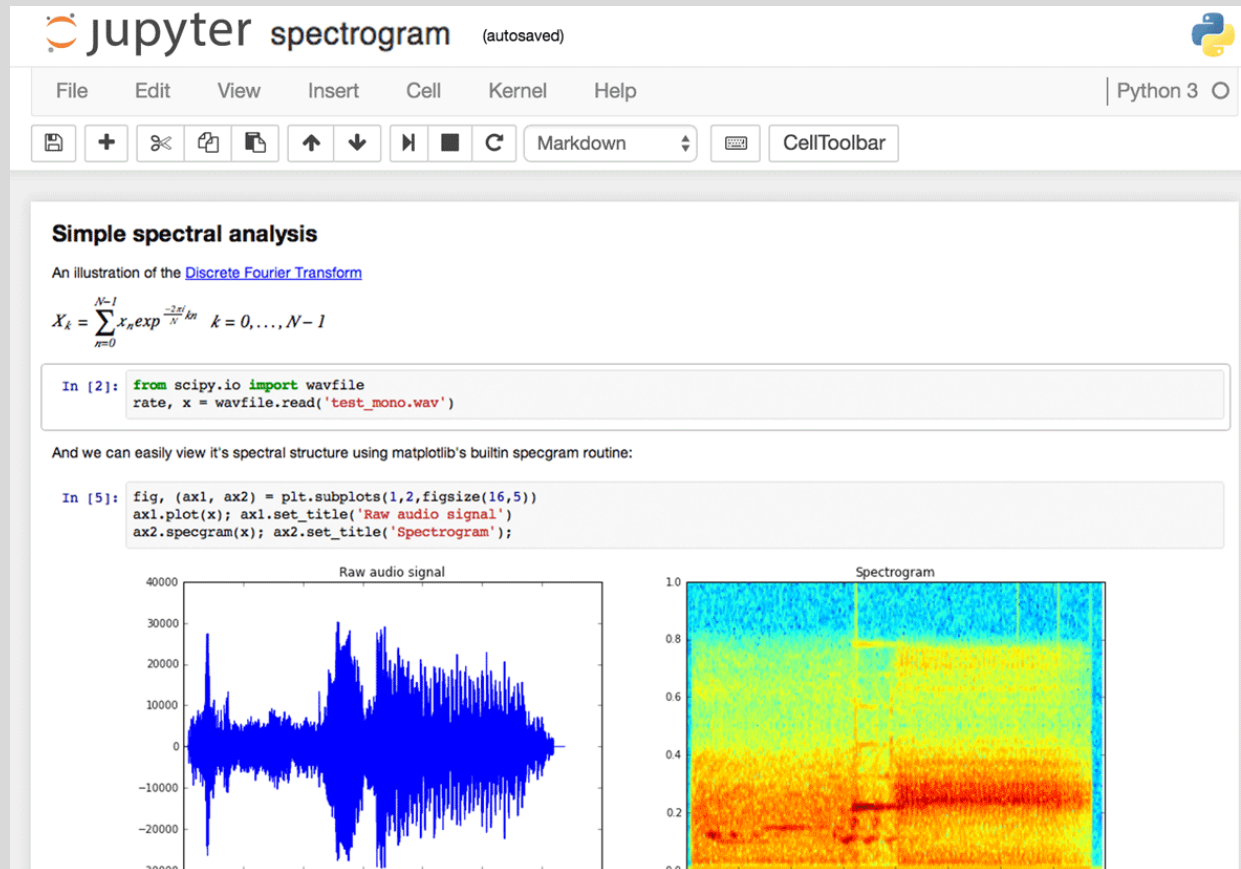
↑  
Notebooks,  
data, storage,  
compute

 **Public utility network incentivizing data:**

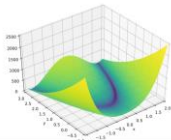
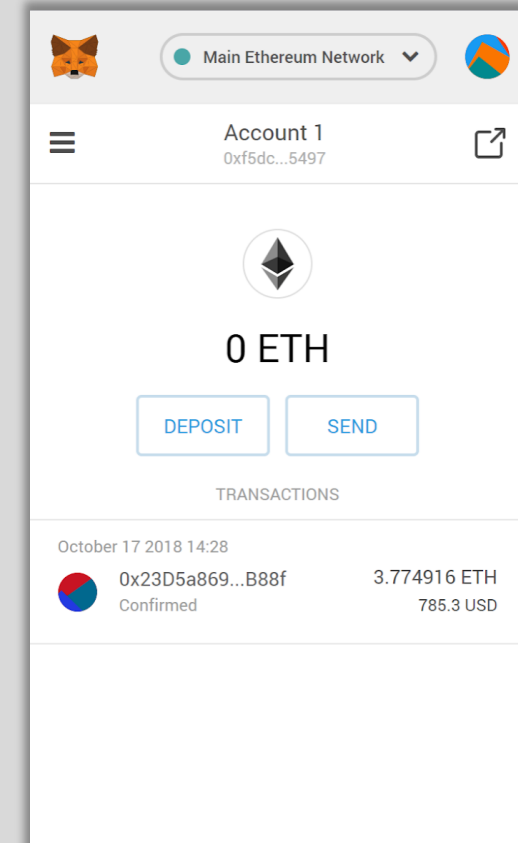
- Block rewards for data
- Privacy-preserving AI modeling




# Keep Data Science Tooling, Add Crypto



\*




# Every dataset is an asset. Every Jupyter notebook is an asset (!)

Ocean ▶ KillTheHumans5 DatasetsViewLogin

### Marketplace KillTheHumans

KillTheHumans is a marketplace for datasets and Jupyter notebooks. In order to eradicate piracy, all data must be input into the system using version 2.8.0.

1	Dataset 78XcYT9 Laser Target Practice Exercises	Publisher Name: LazerDrone Ltd. Date Published: 03-08-2019	LAZ
2	Dataset 87ertHG Facial Recognition Data	Publisher Name: VoyeurDrone Inc. Date Published: 20-06-2018	VOY
3	Dataset 000x567 Thermal Sensor Data	Publisher Name: Predator Movement Date Published: 31-09-2022	KTH
4	Dataset 96zERC Human Locations based on IP	Publisher Name: SkyNet Date Published: 09-11-2020	KLO
5	Dataset 254phyY Human Biological Weaknesses	Publisher Name: The Overmind Date Published: 28-06-2016	REX
6	Add your dataset here ... and become a publisher		

7845.12 OCN11 Datasets1 OCN = 0.12 ETHDiminator

### My Token Assets

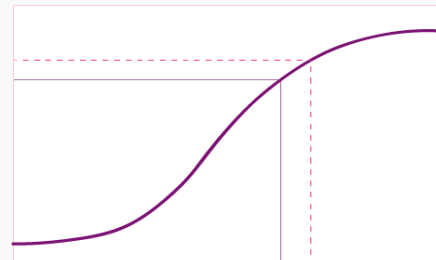
NTT	102.10	KIO	55.00
RED	0.45	OSC	0.80
INT	45.38	IOX	1.00
ZAP	10.00	BAR	4523.12
NTT	100.00	URD	200.00
AAC	22.45		

### My Dataset Portfolio

02	Dataset 0XhjijkA	▲ +1.8%	4.23k NTT	42.10 OCN
10	Dataset 0XhjijkA	▼ -0.5%	2.47k RED	01.10 OCN
04	Dataset qfij875	▲ +2.1%	5.89k INT	30.10 OCN
08	Dataset x00C475	▲ +5.2%	0.20k ZAP	42.10 OCN
02	Dataset 0XhjijkA	▼ -1.8%	4.23k NTT	40.10 OCN
07	Dataset 78XcYT9	▲ +4.5%	2.99k AAC	9.20 OCN
02	Dataset euyijC88	▲ +1.8%	4.23k KIO	38.26 OCN
10	Dataset 78eyujP	▼ -4.6%	0.45k OSC	42.10 OCN
19	Dataset 0XhjijkA	▼ -2.3%	4.23k IOX	22.47 OCN
22	Dataset AA854cv	▲ +0.4%	6.01k BAR	42.10 OCN
03	Dataset 0XhjijkA	▲ +1.8%	8.23k URD	10.24 OCN

### Dataset Selection and Token Supply vs Cost

Dataset 78XcYT9 Marketplace #Name Ranking 7



▲ +4.5%

Current  
9.20 OCN  
2.99k AAC

Future  
9.25 OCN  
3.04k AAC

◀ +5.80 | ▶ Invest (+) or Withdraw (-)

Confirm Transaction



# New powers for data scientists

- **Way more data.** Data commons. Enterprise data without data escapes via on-premise compute.
- **Provenance** in data & AI training. Goodbye data honeypots.
- **More \$.** For generating data. For cleaning, labeling, feature engineering data. For algs. For curation.

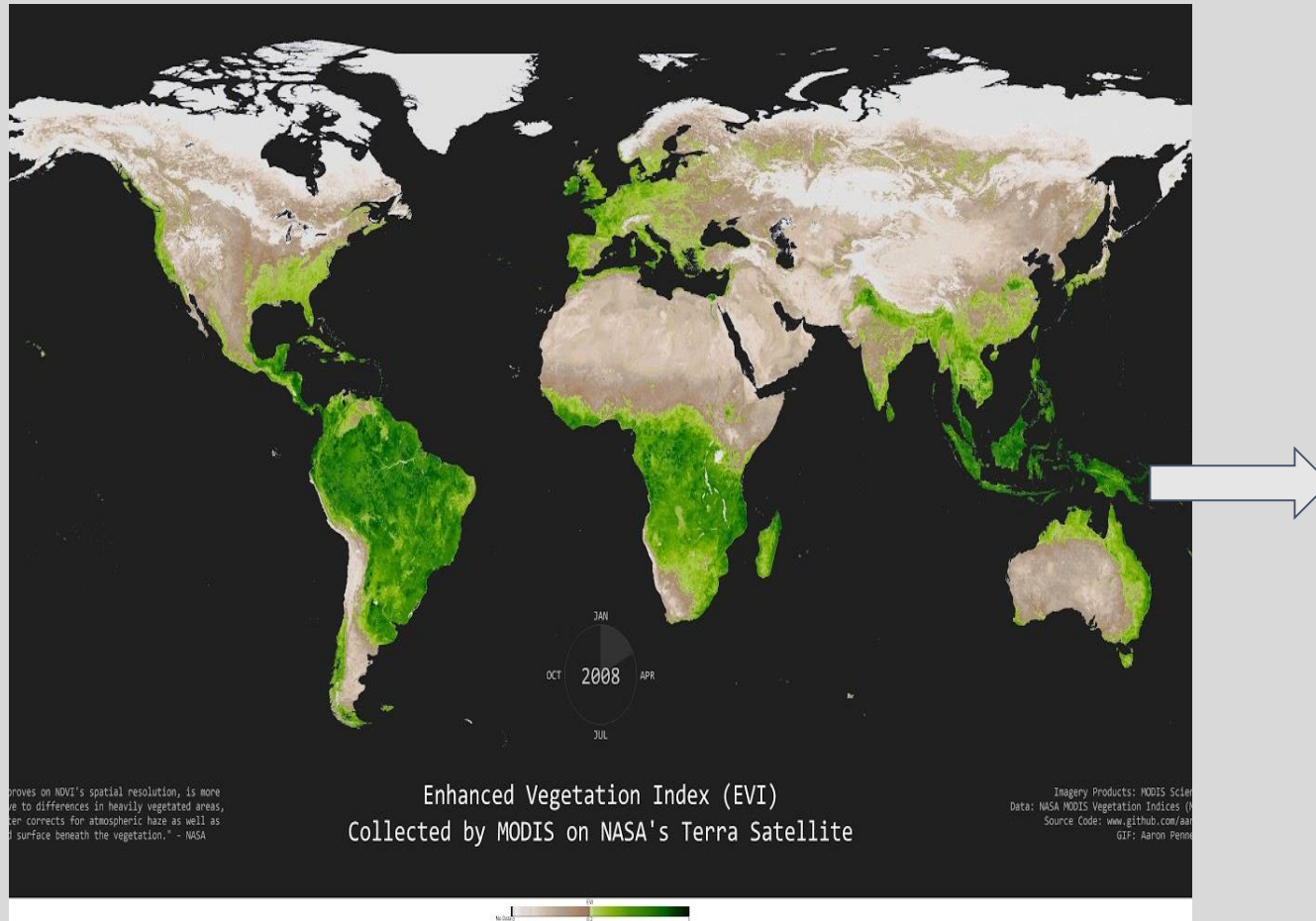


# Applications



# Use case: water quality

Satellite data in the commons to verify impact of forest restoration on water







**Better predict Parkinson's by connecting data across hospitals  
& borders; promoting & promoting research collaboration  
(ConnectedLife)**





**Grow Asia (WEF Spinoff):**  
**Help small farmers allocate their fertilizer better, to increase yields**





**Govt of Singapore Data Authorities (IMDA):  
Give policymakers optionality to get benefits of AI,  
while addressing privacy**





Fred Werner

@fredwerner73

Following



On stage at World AI Summit with @xprize @FondationBotnar @SColesPorter @trentmc0 @frossi\_t announcing #Alcommons and @ITU #Aiforgood Global Summit. Big congrats to @SColesPorter and team for another amazing #wsai18!!



**AI Commons:  
40+ UN Agencies,  
AI XPRIZE Using Ocean  
in #AIforGood**





# The “Scaling Up” Funnel

**Problems specified**



**AI Prototype Built**



**Solution deployed once**



**Solution deployed at  
scale, locally**

**Problems specified**



**AI Prototype Built**



**Solution deployed once**



**Solution deployed at  
scale, locally**





**Getting  
Started**



https://docs.oceanprotocol.com



ocean

# Ocean Protocol Documentation

Learn about the components of the Ocean Protocol software stack,  
and how to run or use the components relevant to you.

## Core Concepts

Understand the fundamentals  
of Ocean Protocol.

[Learn More →](#)

## Setup Guides

Setting up the Ocean Protocol  
components.

[Learn More →](#)

## Tutorials

Browse tutorials for most  
common setup and  
development use-cases.

[Learn More →](#)



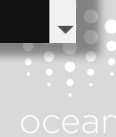
# Manta Ray

## Data Science powered by Ocean Protocol

The **Manta Ray** notebooks provide a guided tour of Ocean Protocol in an interactive Jupyter Notebook environment. Start using Ocean Protocol with your own pre-configured and loaded cloud instance after login with your GitHub account.

**This project is in alpha!** Feel free to ask questions and post bug reports in [our Gitter channel](#). Notebooks are for tutorial and demonstration purpose only. Notebook instances may be periodically offline, and storage volumes will be purged.

JupyterLab Instance





<https://docs.oceanprotocol.com/setup/quickstart/>

## QUICKSTART

Run & Try Everything

## MARKETPLACES

Set Up a Marketplace

## PUBLISHERS

Publish Data or Services

## KEEPERS

Run a Keeper

```
git clone https://github.com/oceanprotocol/barge.git
cd barge/
```

```
./start_ocean.sh --latest
```

Seeing the dolphin means it's working:

```
[→ ./start_ocean.sh --latest
```

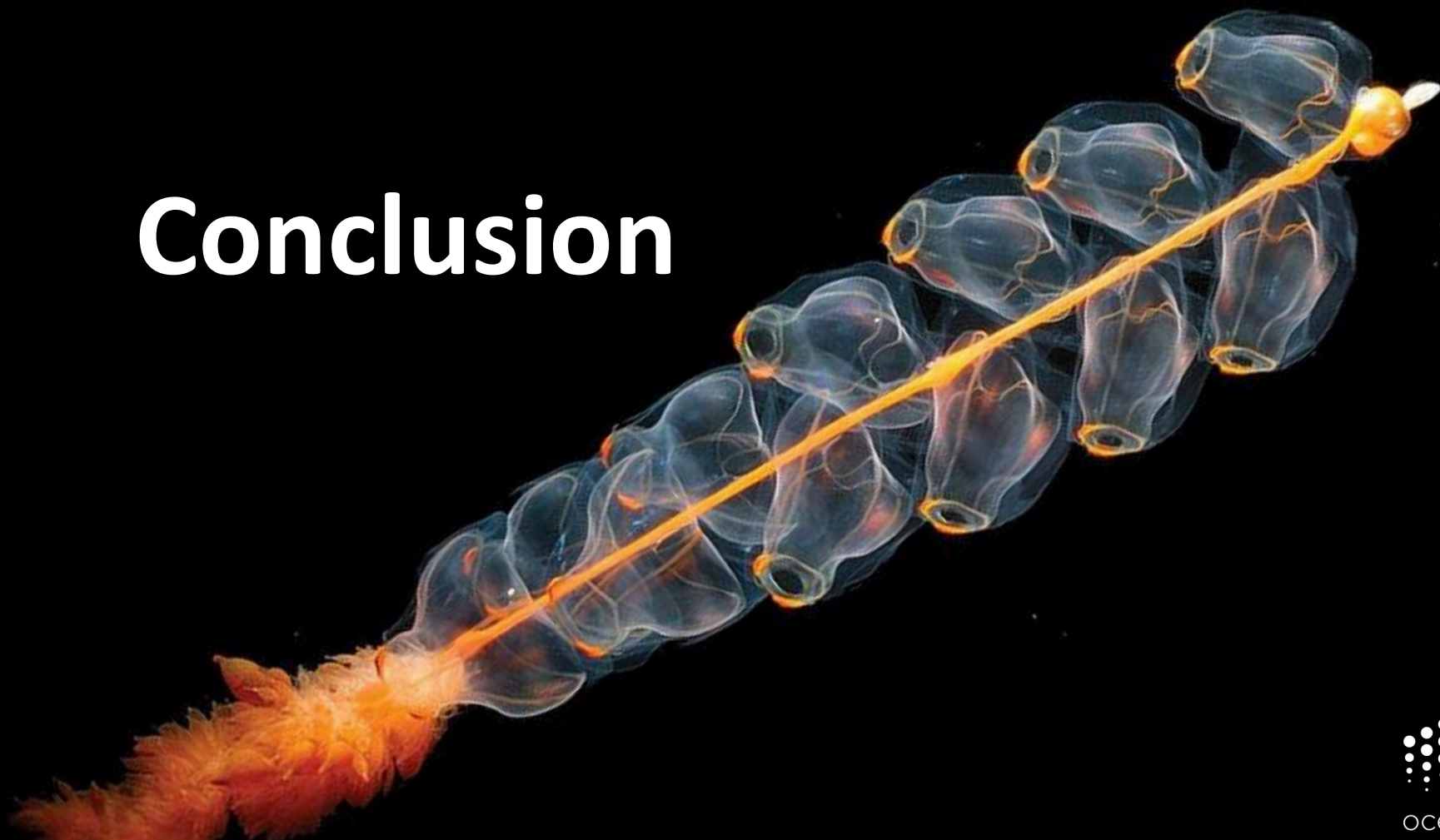
Welcome to



```
Get info: oceanprotocol.com
Get code: github.com/oceanprotocol
Get help: gitter.im/oceanprotocol/Lobby
```



# Conclusion





**Q: how to scale #AIforGood?**  
**A: Blockchain public utility  
network for the AI commons**

