



# EUREKA

A peer-to-peer scientific data  
publishing platform,  
powered by blockchain, to promote  
open science





## Our Vision

Academia is currently facing a myriad of challenges brought about mainly by a biased, inefficient scientific publishing system that is driven by the inflated commercial interests of publishers.

The market of the science publishing industry is worth over \$25 billion. The team behind *ScienceMatters* aims to disrupt the existing system using EUREKA, a blockchain-based science publishing platform. We will modernise and democratise the research and publishing system of science and make it fit for the 21st century.

## About *ScienceMatters*

*“A forum that allows reporting well-supported, single observations is a timely innovation in science publishing that will allow labs to quickly publish important findings that are not part of a larger project.”*

Prof. Thomas C. Südhof,  
Nobel laureate and Chair, *ScienceMatters* Scientific Advisory Board

*ScienceMatters* is an open access, scientific publishing platform which has been publishing peer reviewed articles since February 2016. *ScienceMatters* receives direct support from University of Zurich, University of Toronto, and École Polytechnique Fédérale de Lausanne. *ScienceMatters* has published manuscripts from authors at Harvard University, University of Oxford, University of Zurich, and other institutions worldwide.

## About EUREKA

EUREKA will provide a unique blockchain-powered science publishing system for scientists.

Using the EUREKA platform scientists can rate research, review manuscripts, and receive rewards for their contribution to the research process. EUREKA tokens (EKA) will be used to reward both peer reviewers, as well as editors. EKA can be used to encourage reproducibility studies by rewarding scientists who find negative and positive results (or replication data). EKA is an Ethereum-based token which will be integral to the enhancement of the existing *ScienceMatters* publishing platform.

## Problems in the current publishing system

### Billions of dollars are wasted each year on research that goes unpublished

It is estimated that less than 1% of researchers publish more than one paper a year. Most scientific observations are never communicated and potentially lost forever, which also reflects a poor return on investment for public institutions supported by taxpayer funding. Additionally, the need to publish complete stories results in delays in propagating research and the hindering of scientific progress.

### 70% of scientists cannot reproduce published research

Surveys show that more than 50% of scientists cannot reproduce their own work and an overwhelming 70% cannot reproduce other published research. Many pharmaceutical companies rely on published research to start projects and/or pre-clinical trials. As a result, large amounts of resources are wasted. One of many examples is the Danish company Lundbeck, which recently incurred \$1 billion in losses having to stop trials after disappointing results.

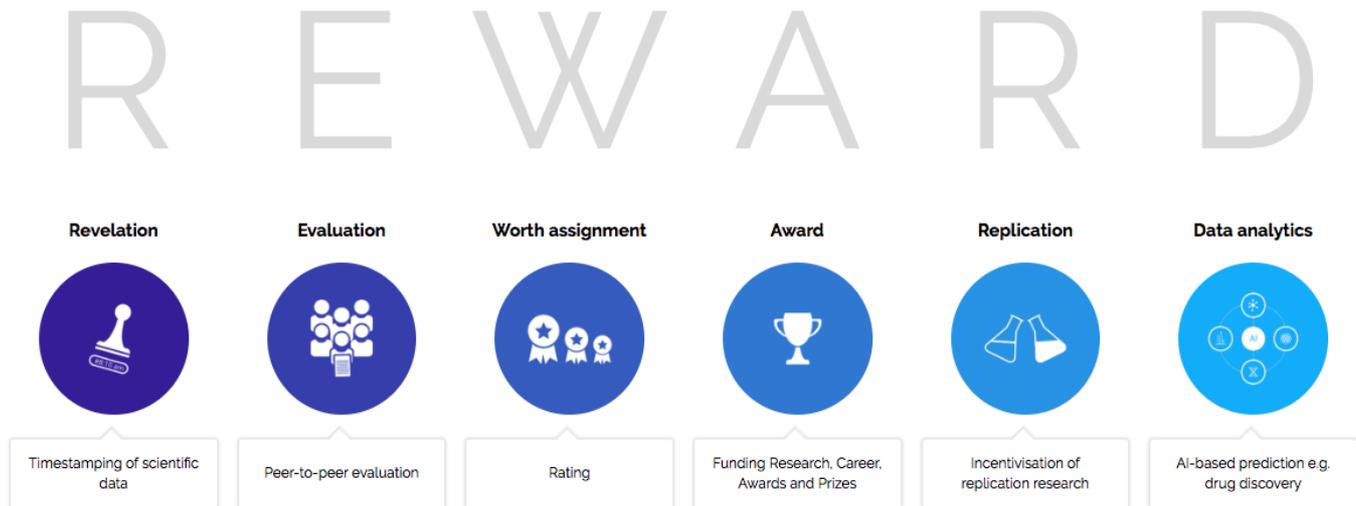
### High cost to publish and to access published articles

The submission fee is on average \$5'000 per article, which is often provided by publicly funded institutions and as such indirectly borne by tax payers. Subscriptions to access published work are between \$200 to \$300 and \$10'000-15'000 p.a. for individuals and institutions respectively. Moreover, the current system does not reward scientists for conducting peer reviews. As a result, the scientific publishing industry has a higher profit margin, at over 40%, than Google and Apple.



## EUREKA Solutions on Blockchain

### The REWARD system



EUREKA's REWARD system aims to solve the current problems by allowing:

- **Publishing in real-time:** From the moment of their conception, scientific observations are recorded on the EUREKA platform as single observations or preprints giving the author or inventor:
  - Immediate ownership rights and instantaneous credit and recognition.
  - Instantaneous feedback from peers.
  - Instantaneous and open sharing with the scientific community.
- **Crowdsourced and paid peer-reviewing:** By using a blockchain based platform we:
  - Make use of both crowdsourced wisdom and time zones to get a faster and more accurate evaluation of the work.
  - Ensure the review process is bias-free and based on merit alone.
  - Enable smart-contract based payments to compensate authors, reviewers, as well as anyone who contributes to the advancement (development) of the work for their efforts.
- **Immutable, transparent and decentralised publishing:** Publishing on the EUREKA platform ensures that archived data is immutable, timestamped, version controlled, and securely distributed thus providing an ideal system for research data management that does not put trust on either the publishers or authors.

### Who we are

- Reputable established team: CEO and founder, Prof. Lawrence Rajendran, a renowned Alzheimer's researcher at the University of Zurich; CTO, Prof. Thomas Bocek, a professor of computer science and researcher of blockchain technologies at Hochschule für Technik, Rapperswil
- Chair of the *ScienceMatters* Scientific Advisory Board: Prof. Thomas C. Südhof, MD from Stanford University, awarded Nobel Prize in Physiology or Medicine in 2013
- Recommended to researchers by the European Commission in "Horizon 2020 Guidelines on Fair Data Management"
- Established network of peer reviewers and editors around the world
- Not a start-up: proven system with business infrastructure already in place



## EUREKA tokens will be used for:

- Submitting articles for review and publication, which include a fee for operating costs
- Rewarding peer reviewers, authors and funding agencies through citations
- Proving ownership of scientific observations using timestamping
- Upvoting and downvoting research as well as voting in selection for awards and prizes
- Peer reviewer staking to incentivize reviews in a timely manner
- Proving REWARD ratings from peer reviewers to interested parties
- Funding research using smart contracts: automatically release funds for studies and peer review once conditions have been met
- Token pledges, awards and prizes (based on contributions from organisations) for scientists and researchers reaching milestones to solve major problems in society
- Worldwide crowdfunding from the general public to pay scientists directly to conduct research studies e.g., on under-researched diseases

## Market Opportunity

It is estimated that, in the US alone, \$28 billion are wasted by pharmaceutical companies each year. This waste happens when drug trials fail, producing only ineffective drugs and/or harmful side effects. The EUREKA platform will enable companies to access and promote replication studies. The platform will allow companies to incentivise much needed replication studies. Researchers can be paid directly in EKA tokens on the EUREKA platform. This will encourage replication studies on a global scale, speeding up science research and saving money.

## Business model and Revenue Streams of EUREKA Services

EUREKA has a SaaS (software as a service) business model in which the technology remains under EUREKA's ownership while customers pay for software usage. The software services are bundled (freemium) into packages differentiating by value adding functionalities and services (see bullet points below). Customers pay either on a monthly, yearly, or multi-yearly subscription to use the software and additional services whilst receiving either EUREKA's publishing services and/or data analytics services. The following revenue streams are envisioned:

- White labeling platform to set up single observation journals. Pay per number of articles submitted, amount of access, or editing services.
- Offering one-click journal/conference rating platform via the EUREKA convenience layer including data analytics. Revenues are generated from fees.
- Integrating EUREKA to existing scientific conference management systems enabling additional services for those systems. Revenues are generated from fees.
- Further revenue streams envisioned e.g., by providing a funding platform or sponsoring best paper awards with EUREKA tokens in exchange of small fee for each reference.

## Why invest in the EUREKA ICO?

- EKA tokens will be used by universities globally, including existing clients of *ScienceMatters*
- Secure, stable, and well-regulated crypto business environment in Zurich, Switzerland
- Established team with high profile scientific advisory board members
- Loyalty bonus: 1% of all payment transactions on the EUREKA Platform with EUREKA tokens will automatically go to the active token holders in proportion to the stake or share of total EKA in circulation that is owned by the holder. This will be on a continual basis and the loyalty bonus is allocated to the holder whenever the token holder makes a transaction in EKA. To qualify as an active token holder, the token holder needs to have made one transfer or transaction in EKA in the preceding 12 months.
- Profits from EUREKA Blockchain Solutions GmbH may be used by EUREKA Blockchain Solutions GmbH to purchase EKA tokens, and these tokens may be distributed to active holders as a loyalty bonus at the discretion of EUREKA Blockchain Solutions GmbH.