



bloXberg

OWI

IMPROVING OPEN WEB INDEX'S TRANSPARENCY BY LEVERAGING
BLOXBERG'S BLOCKCHAIN TECHNOLOGY

IOSIF PETERFI – MAX PLANCK DIGITAL LIBRARY

bloXberg

OWI

IMPROVING OPEN WEB INDEX'S TRANSPARENCY BY LEVERAGING
BLOXBERG'S BLOCKCHAIN TECHNOLOGY

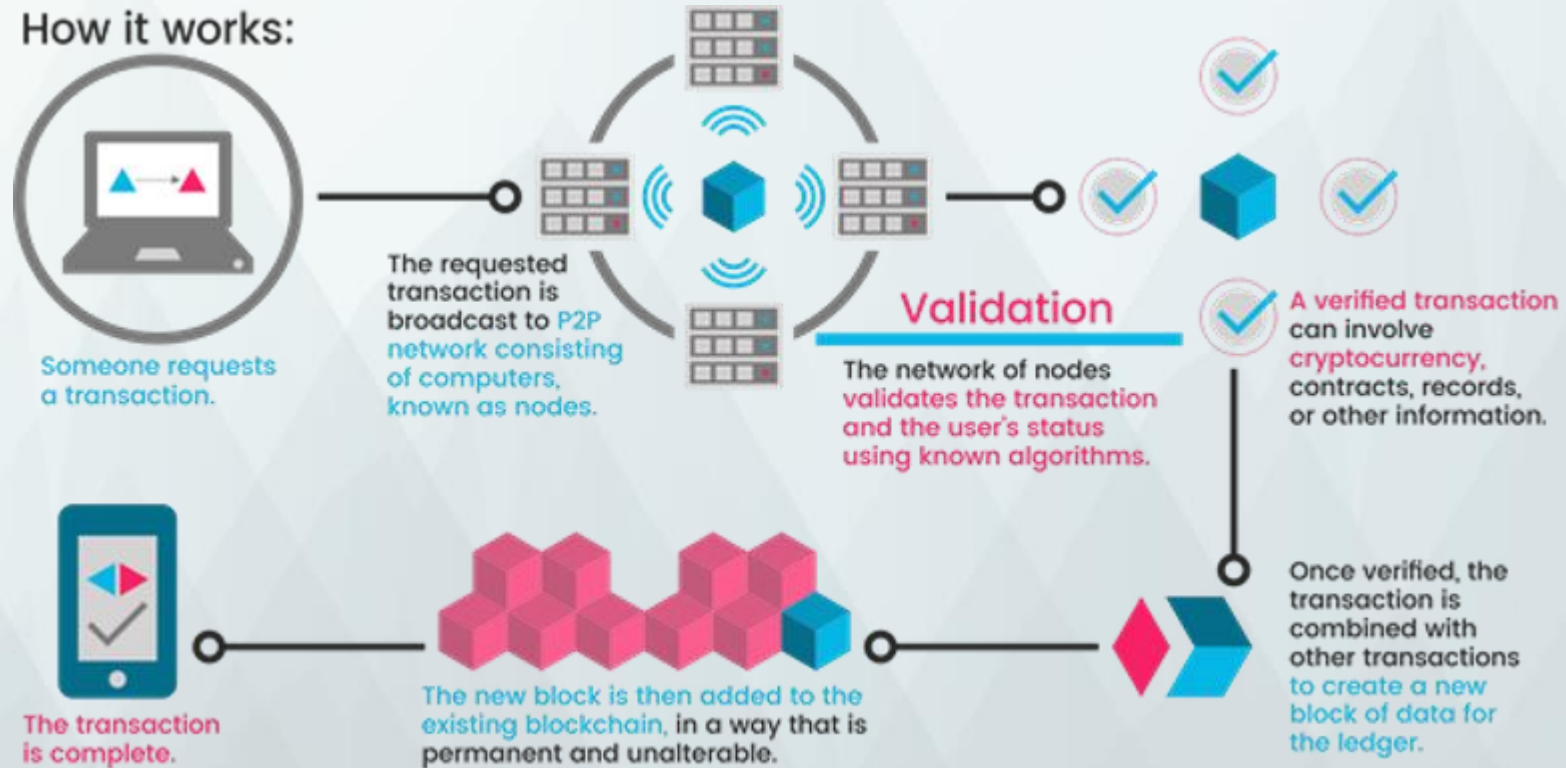
IOSIF PETERFI – MAX PLANCK DIGITAL LIBRARY

blockchain

- Database transaction log
- First implementation 2009 (more than 10 years ago)
- EVM was first released in 2012
- Used for providing high degree of integrity
- Used for providing trusted transparency
- PoA is the most energy efficient mechanism, relies on trustworthiness of the validator nodes as a group

How does it work?

A distributed, decentralized digital ledger (database)



bloxberg

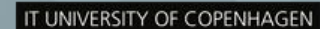
- A global **blockchain infrastructure** created by research organizations to provide scientists **decentralized services**
- Aims to foster collaboration among scientists
- Founded by 11 research organizations in **February 2019**
- Growing consistently within Europe as well as globally

Founding Members

- Max Planck Society
- University of Nicosia
- University College London
- IT University of Copenhagen
- University of Kassel
- Georgia Institute of Technology
- Carnegie Mellon University
- University of Johannesburg
- University of Sarajevo School of Economics
- ETH Library at ETH Zürich
- University of Belgrade



MAX-PLANCK-GESELLSCHAFT





ARISTOTLE
UNIVERSITY OF
THESSALONIKI



INSTITUTO
GULBENKIAN
DE CIÉNCIA



L-Universita'
ta' Malta



UNIVERSIDAD
NACIONAL
DE COLOMBIA

if(is)
internet-sicherheit.



KIT
Karlsruher Institut für Technologie



UNIVERSITÉ
DE GENÈVE

Carnegie Mellon
Tepper
SCHOOL OF BUSINESS



Fraunhofer



ETH zürich



UNIVERSITY
of NICOSIA



MAX-PLANCK-GESELLSCHAFT

Technology
Arts Sciences
TH Köln



UNIVERSITY OF SARAJEVO
School of Economics
and Business



University of
Zurich UZH

Georgia
Tech



Ferdinand-
Steinbeis
-Institut



IT University
of Copenhagen

UNIKASSEL
VERSITÄT



UNIVERZITET U BEOGRADU
FAKULTET ORGANIZACIONIH NAUKA



UNIVERSITY
OF
JOHANNESBURG

HTN
HEILBRONN UNIVERSITY
OF APPLIED SCIENCES



RMIT
UNIVERSITY

Mendel
University
in Brno



POLITECNICO
DI MILANO

RWTH AACHEN
UNIVERSITY



West University
of Timisoara



Frankfurt School of
Finance & Management
Bankakademie | HfB

FH University of Applied Sciences
TECHNIKUM
WIEN

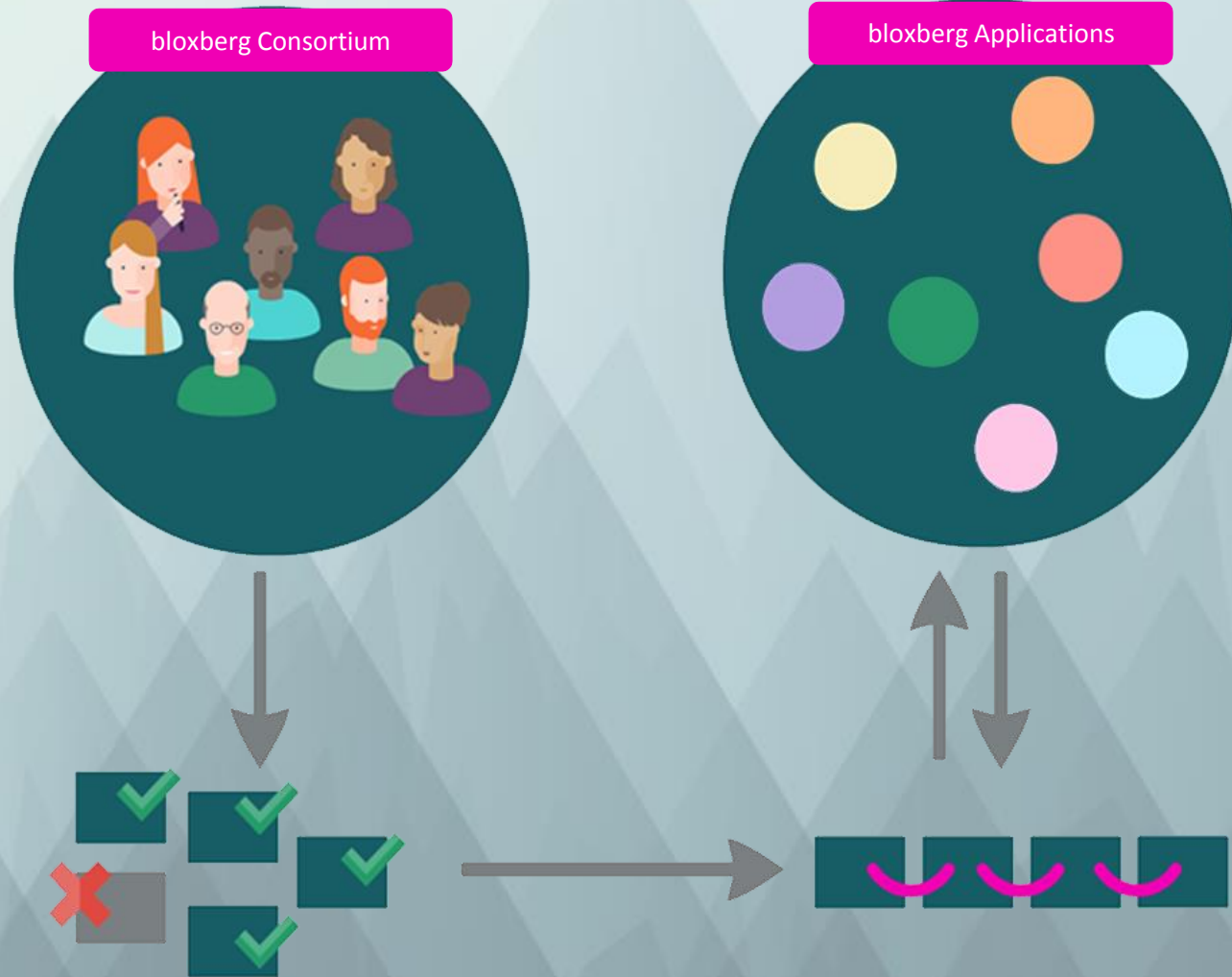


...and counting

bloXberg

CONSORTIUM MEMBERS

Infrastructure



Third party decentralized apps



WOLFRAM



Ethernity Cloud



ARTiFACTS®

Researcher Recognition, Accelerated



DECENTRALIZED
SCIENCE

OWI and bloxberg

A Transparent Web Index Concept

10.2 Example of 'response' record

```
WARC/1.1
WARC-Type: response
WARC-Target-URI: http://www.archive.org/images/logoc.jpg
WARC-Warcinfo-ID: <urn:uuid:d7ae5c10-e6b3-4d27-967d-34780c58ba39>
WARC-Date: 2016-09-19T17:20:24Z
WARC-Block-Digest: sha1:UZY6ND6CCHXETFVJD2MSS7ZENMWF7KQ2
WARC-Payload-Digest: sha1:CCHXETFVJD2MUZY6ND6SS7ZENMWF7KQ2
WARC-IP-Address: 207.241.233.58
WARC-Record-ID: <urn:uuid:92283950-ef2f-4d72-b224-f54c6ec90bb0>
Content-Type: application/http;msgtype=response
WARC-Identified-Payload-Type: image/jpeg
Content-Length: 1902
```

OWI and bloxberg

A Transparent Web Index Concept



OWI and bloxberg

A Transparent Web Index Concept



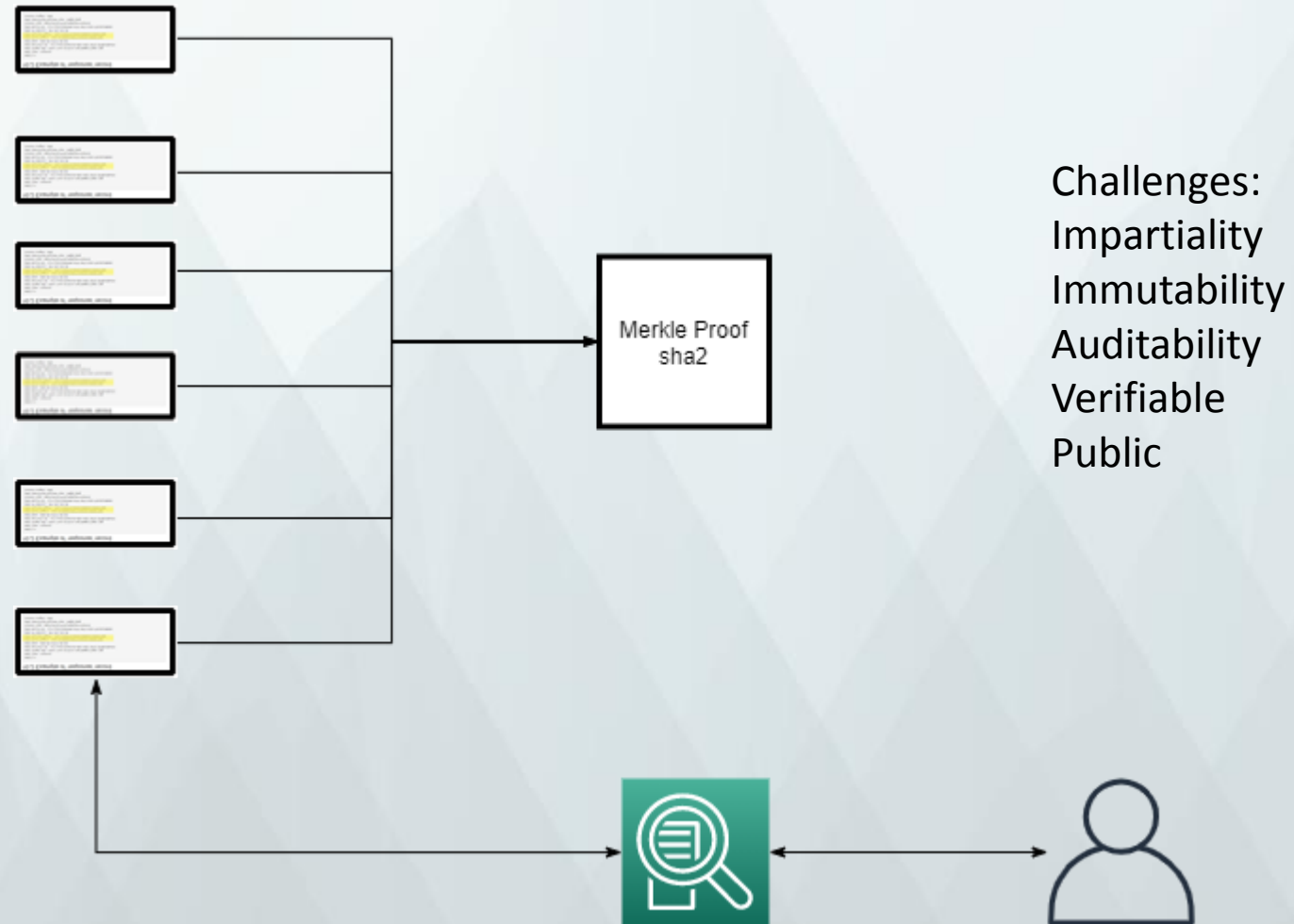
OWI and bloxberg

A Transparent Web Index Concept



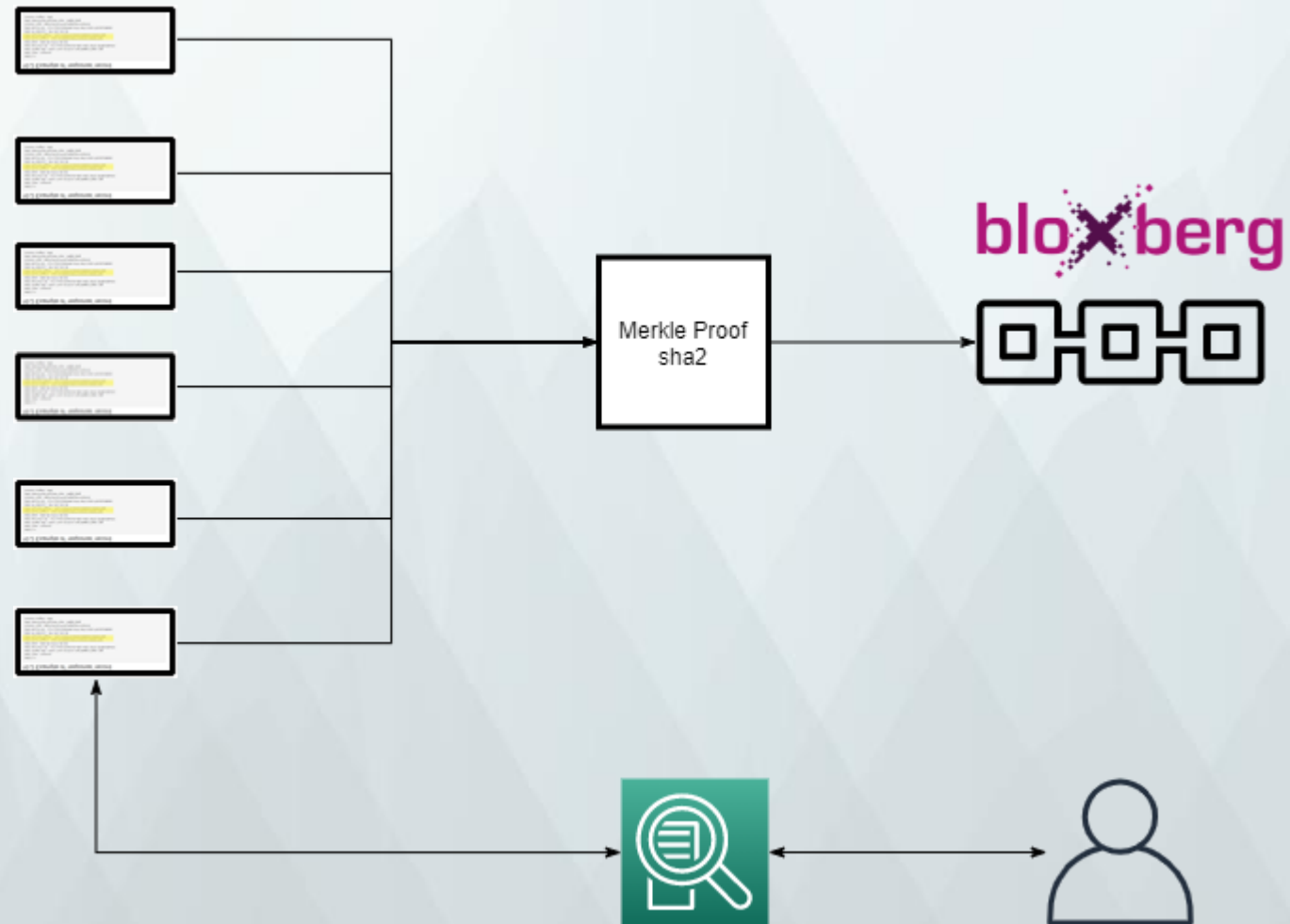
OWI and bloxberg

A Transparent Web Index Concept



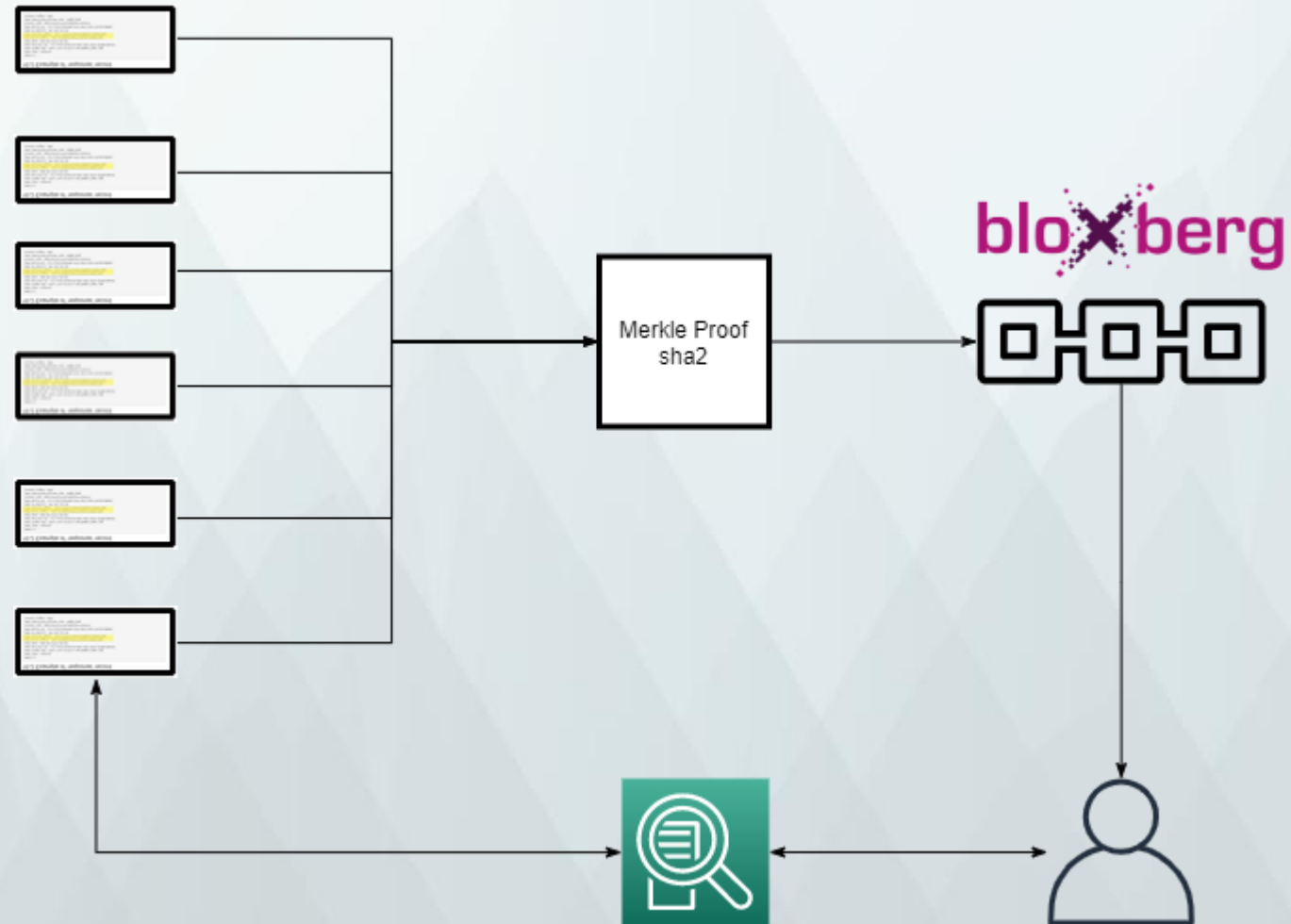
OWI and bloxberg

A Transparent Web Index Concept



OWI and bloxberg

A Transparent Web Index Concept





CONTACT US

Questions ?

 info@bloxberg.org

 www.mpdl.mpg.de

#bloxberg #scienceblockchain

blo**berg**