



Data Management Hub

by Kubrik

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Research Data Workflow

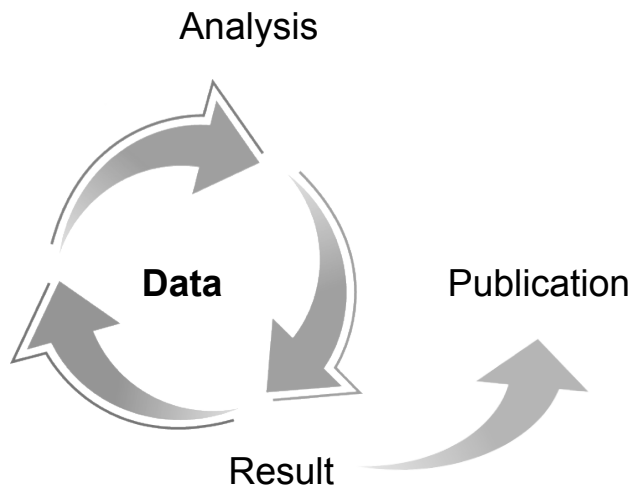
Idea + Funding



Experiment

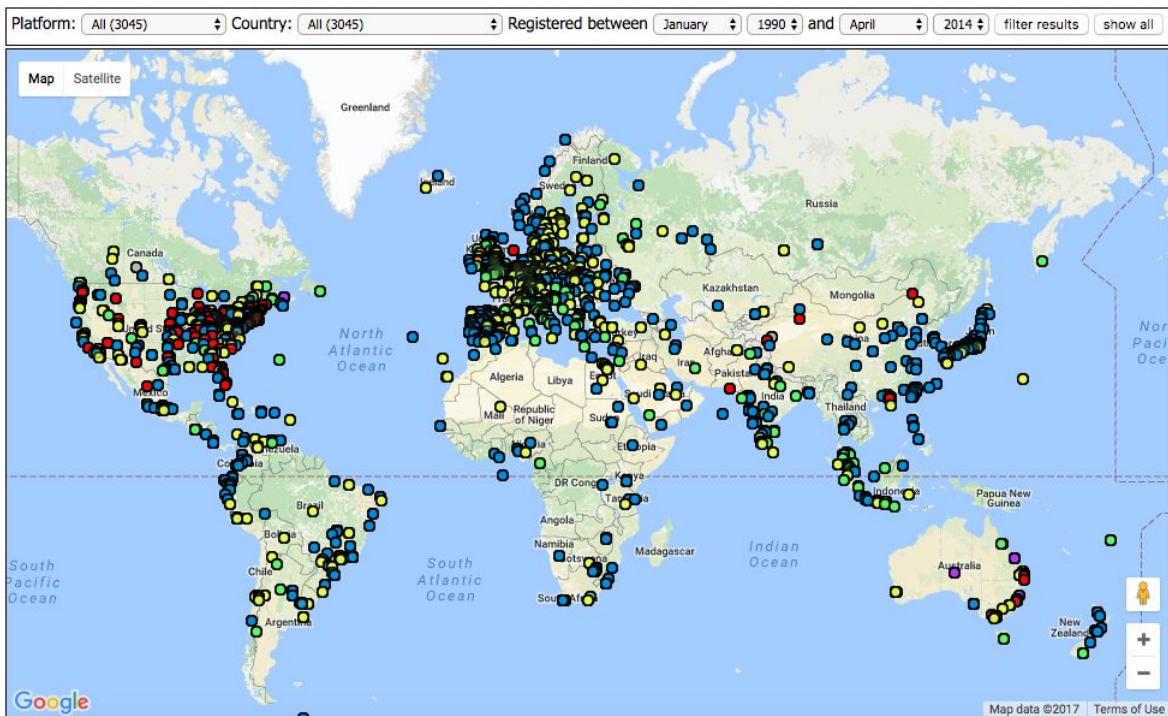


Preprocessing





Institutional Repositories Map



Source: <http://maps.repository66.org>



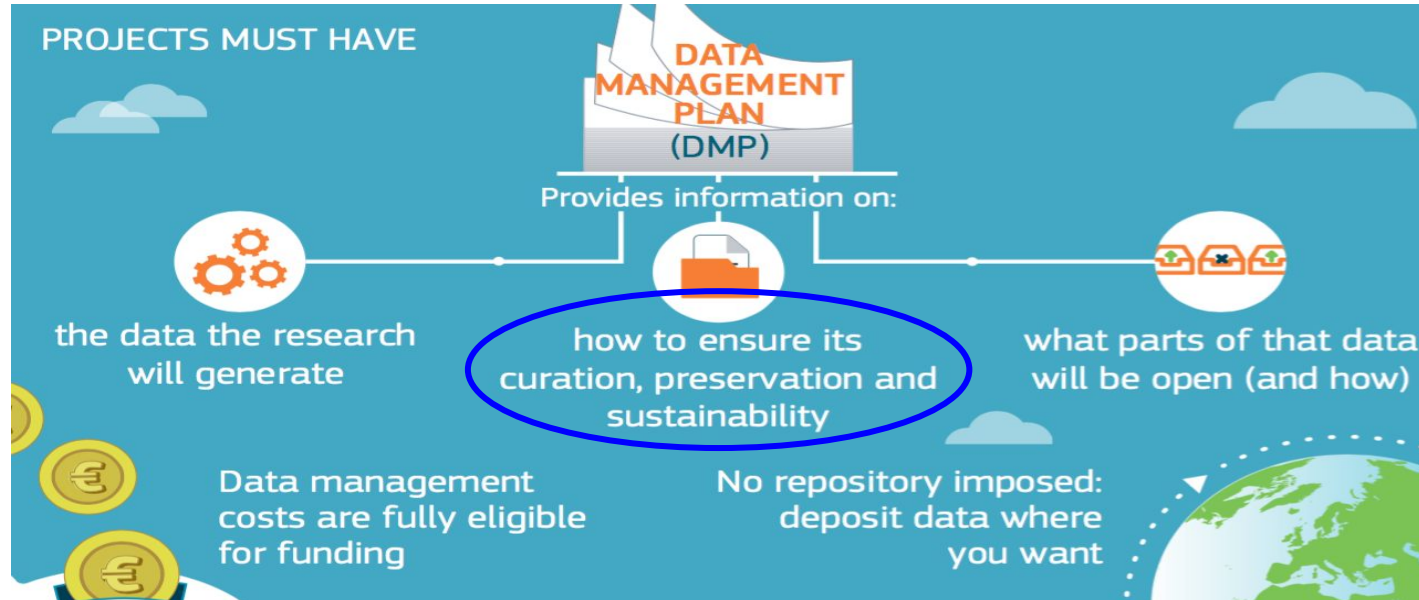
"3 years after finishing the project **80%** of all researchers can **not present the data** anymore."

Prof. Dr. Mark Ferguson

Science Foundation Ireland



Since 2016 Data Management Plan mandatory



- ❑ Data Management plan and preservation of scientific outcomes is mandatory now:

EU: Horizon 2020; **Germany:** BMBF, DFG, DAAD, HRK, Alexander von Humboldt-Stiftung, Deutsche Akademie der Naturforscher Leopoldina, Fraunhofer-Gesellschaft, Max-Planck-Gesellschaft Wissenschaftsrat; **UK:** AHRC, BBSRC, CRUK, EPSRC, ESRC, MRC, NERC, STFC, Wellcome Trust; **And many, many more...**



Publicly funded research data must remain FAIR

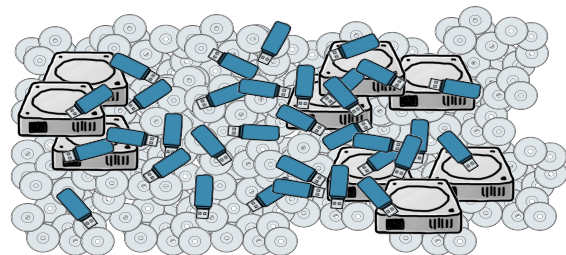
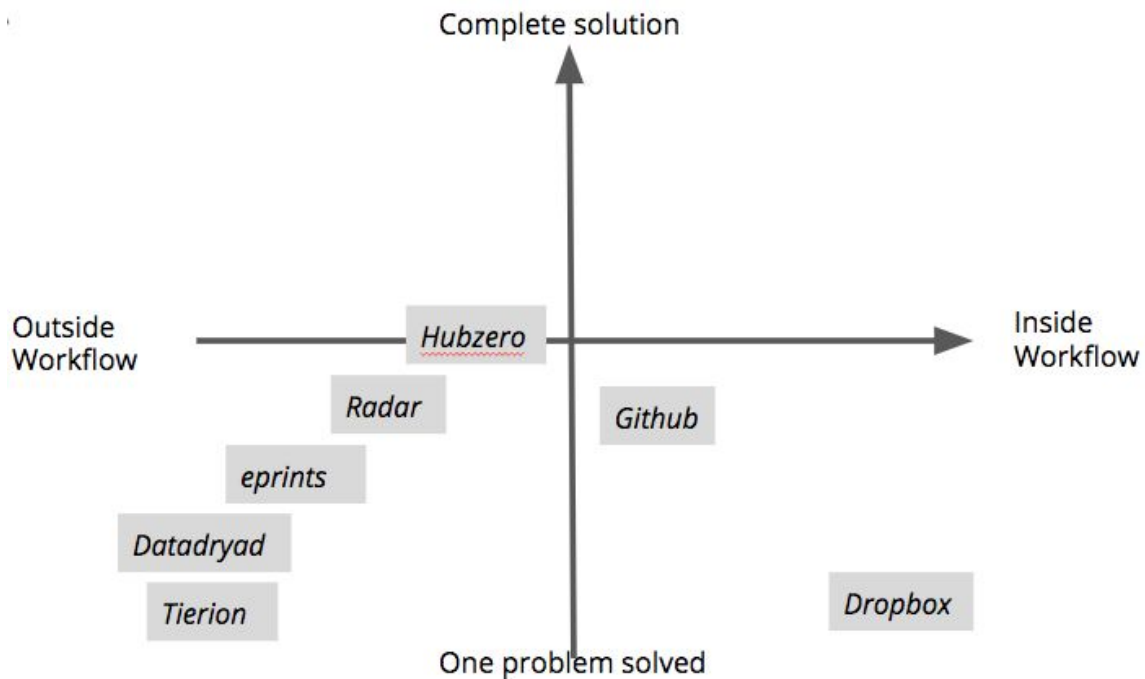
RESEARCH DATA - OPEN BY DEFAULT



http://ec.europa.eu/research/press/2016/pdf/opendata-infographic_072016.pdf

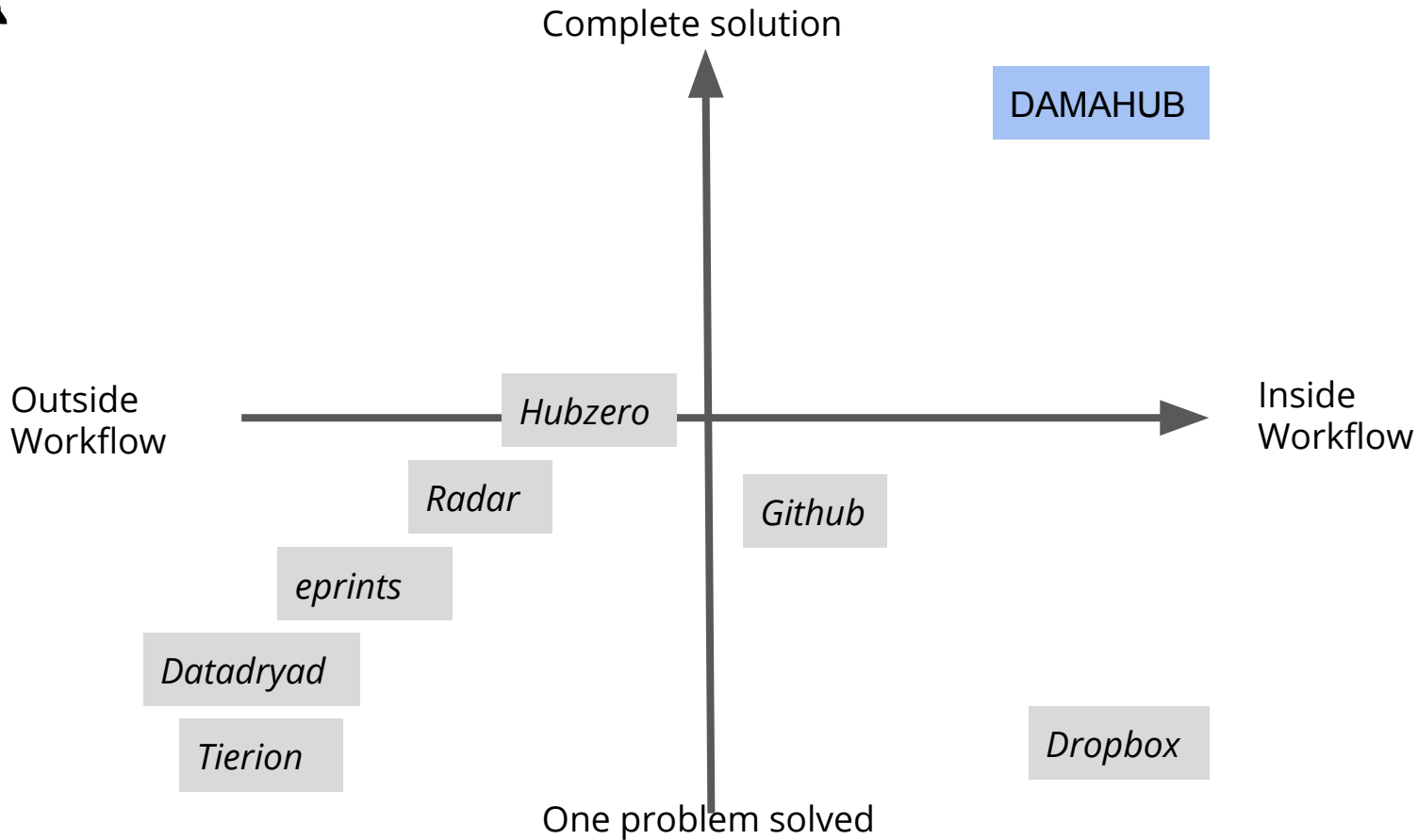


No Complete Data Management Solution





Opportunity





What researchers need



Distributed, neutral



Timestamps for
Authenticity



Easy Sync

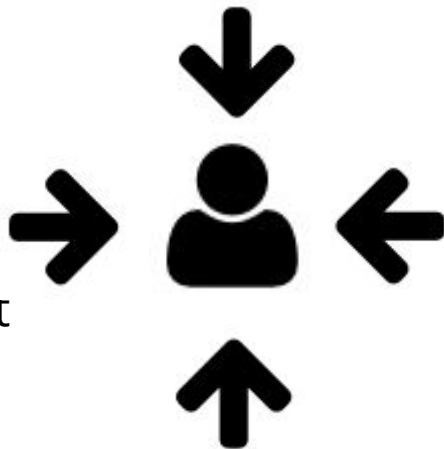


Version-Management



Private Data

**Data
Authorship
Attribution**



Peer-Review,
Comments



Open Access



Open Source



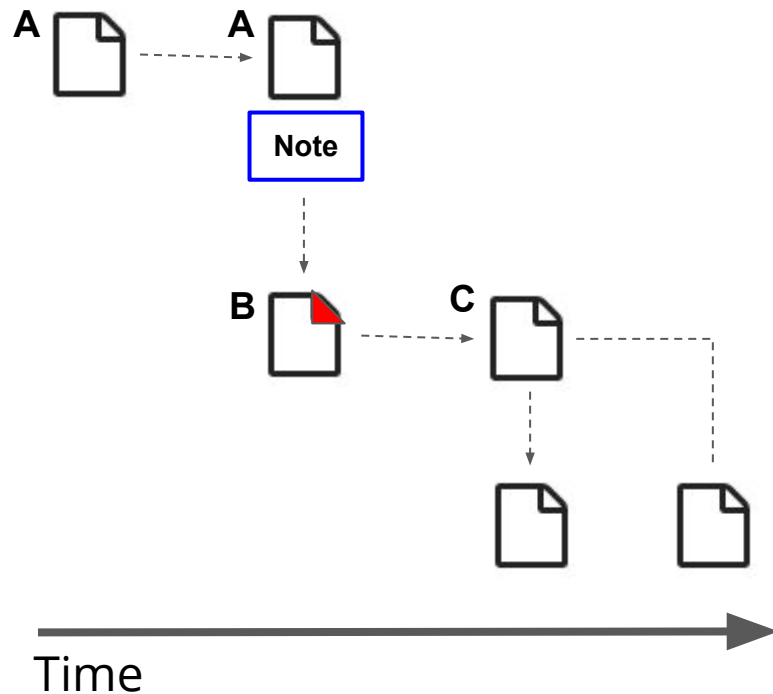
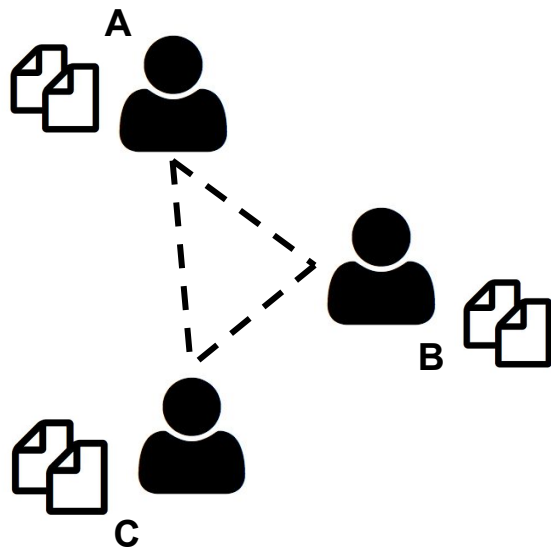
No Vendor-Lockin



**Lots Of Copies Keep
Stuff Save**

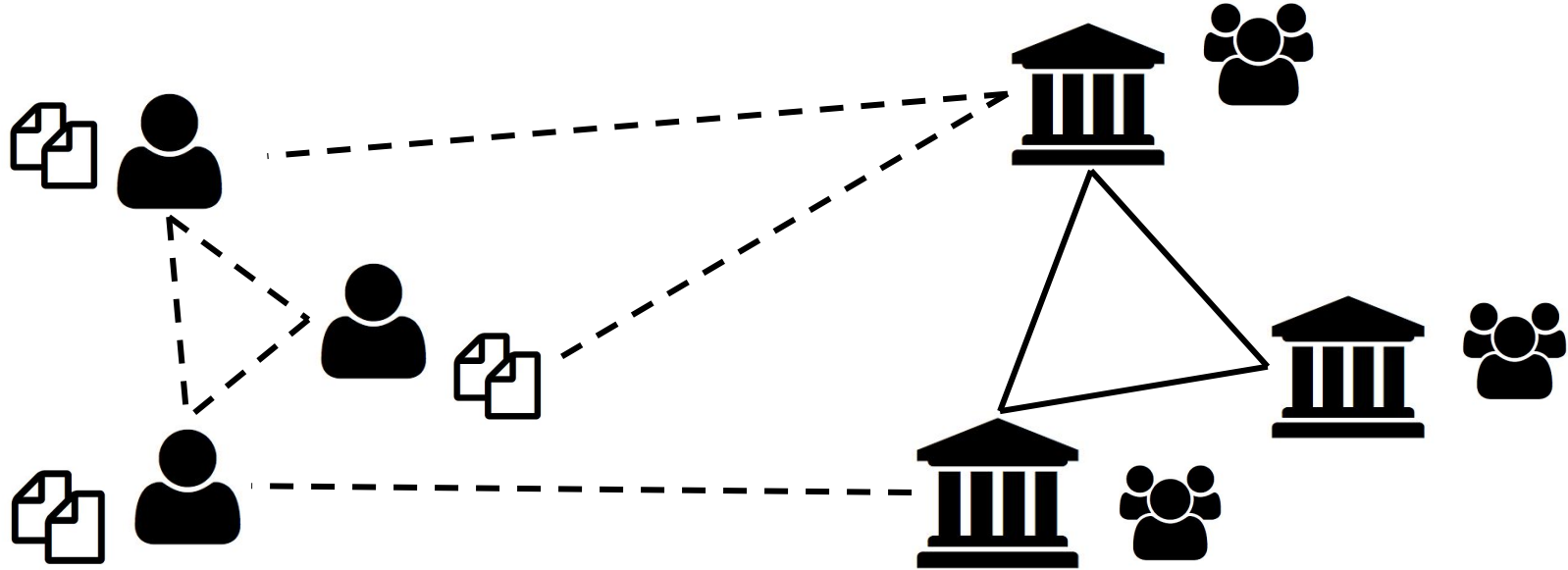


Data Management Hub





How Data Management Hub works



Private Data
Synchronising, Versioning

Open Data
IPFS + Blockchain, neutral



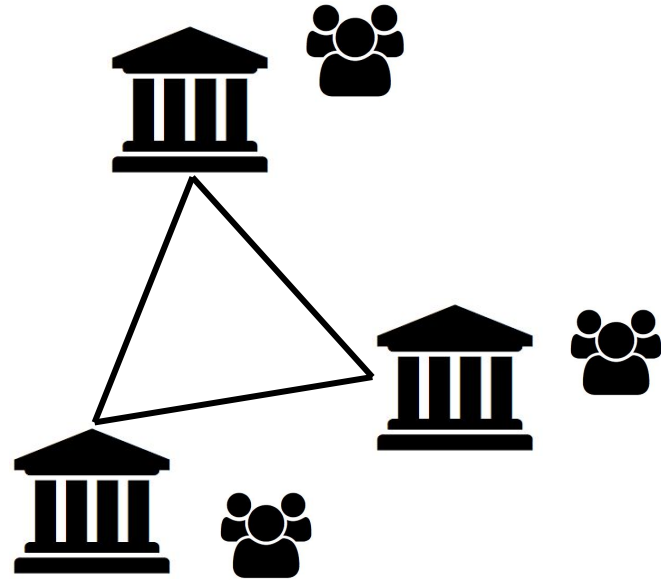
What does Data Management Hub do?

Innovative Technologies:

Blockchain + distributed File System

IPFS

- ✓ Distributed - neutral, resilient
- ✓ Version management
- ✓ Attribution of Data Authorship
- ✓ Open Access
- ✓ Time Stamps
- ✓ Search
- ✓ Social Interaction
- ✓ LOCKSS



Open Data
IPFS + Blockchain, neutral



Demonstrator: kubrik.io/demos/odr/

[Open Document Repository](#) [Search](#) [Browse](#) [Upload](#) [Delete local DB](#) [Reload DB](#) [About](#)

Search Document repository

This shows an example for a blockchain based open document repository. Please fill in your search terms.

Keywords (separated by ","):

- ✓ Distributed File System
- ✓ Reference on Blockchain: Hash, Timestamp



Document view

Date: 2017-05-01T19:59:22.123572,

Title: [lf-we-think-of-each-dataset-as-a-block...](#)

Author: kubrik,

Changes:

Keywords: If we think of each dataset as a BLOCK..., pdf, damahub, block, infrastructure

Category: slide

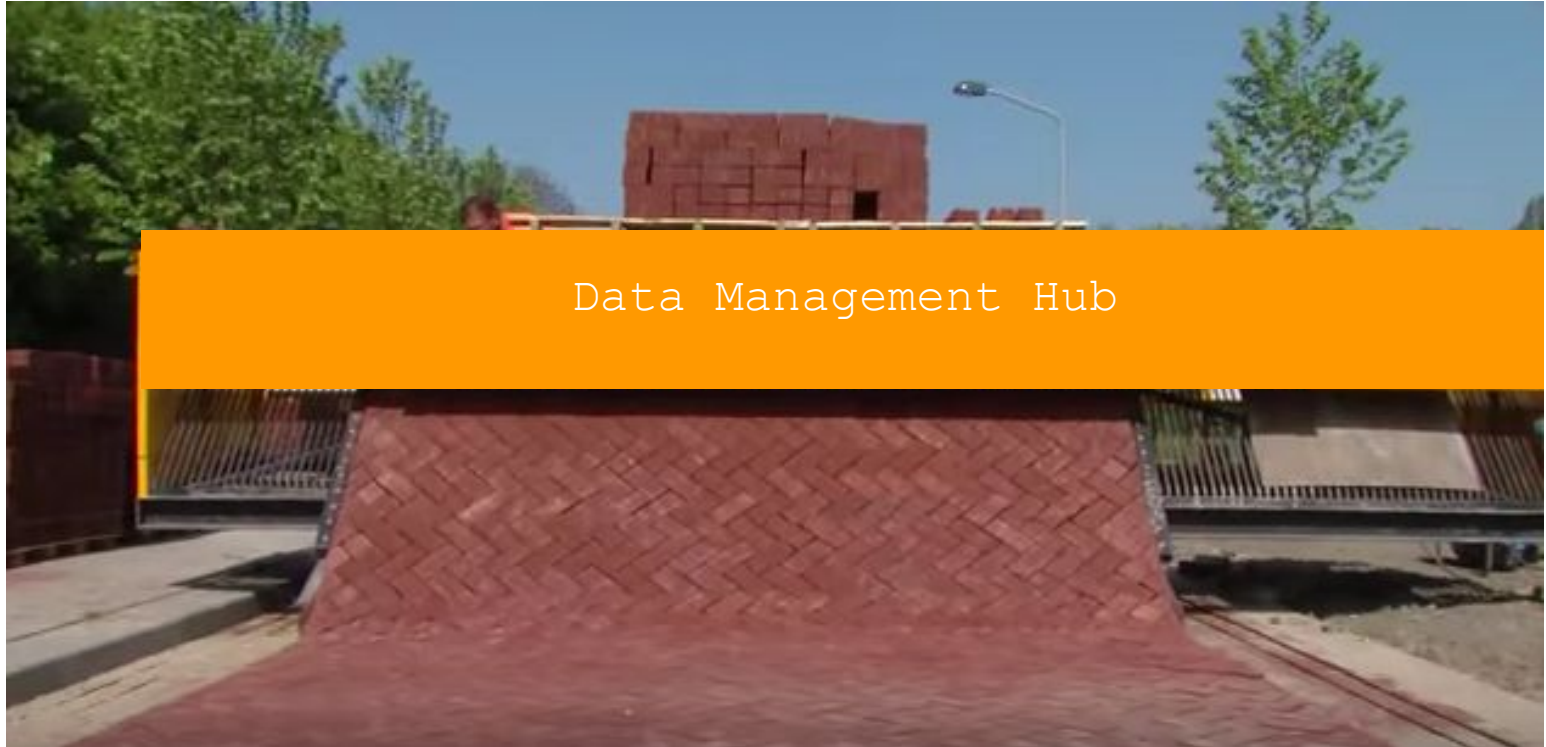
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ipfs.io URL: <https://ipfs.io/ipfs/QmP4hTyp14rBb9r8afCt3W4Z33tWyVVMsmDrPkBqdLj2vu> (external),

Blockchain Reference: [45ad0ff4ce1ed13225d61deaa9f188a7aa78b794b9fdf63420de26dcf0f69716](#)

Signature:

[Update this document with new information...](#)



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Changing Role of the Publisher

- Researchers love their experiments and focus on submitting papers.
 - They give little attention to **procedural requirement**.
- Research funding bodies have comprehensive data archiving requirements.
 - Assistance & **guidance** required
- Publishers are specialists for integrity of research content.
 - Accepting new responsibility for **data integrity**.
- Value of data intensive research
 - Papers relevant only in connection with **reliable data**



Changing Role of the Publisher

“The International Committee of Medical Journal Editors (ICMJE) believes that there is an ethical obligation to responsibly share data generated by interventional clinical trials because participants have put themselves at risk. In a growing consensus, many funders around the world — foundations, government agencies, and industry — now mandate data sharing.”

(Annals of Internal Medicine, January 2016)



Publishers are well positioned to create and capture value from connecting content & data in the scholarly communication.



Our Offer to Karger Publishers

- Active advisory role in the product development
- Role as model publisher after which process are designed
- Building innovative data management service for Karger journal authors
- Technological leadership in blockchain technology
- 8-12 month pilot for testing with selected journals
- No cost involved for Karger



As our exclusive publisher partner, Karger plays an active role in the development of an integrated service for researchers.



Our Team



Denis Parfenov, co-founder, CEO, MBS (International Business), MA (International Relations). Open Data Governance Board Member (Ireland), Account Manager (HP Ireland) and founder (B2B E-Commerce). Strategic partnerships, funding.



Ingo Keck, co-founder, CTO, Dr. europ. (CS), Dipl. physicist. 10 years work as researcher, 2 years as system architect and full stack coder. System design, Coding. **[RETIRED]**



More information

- [Github](#)
- [Executive Summary](#)
- [3 min video](#)

Contact

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- [Wire](#): @parfenov
- Twitter: [@prfnv](#) / [@damahub](#) / [@kubrikHQ](#)



DaMaHub Advantages

Researcher



Fit-in-workflow Data
Management

Funding Organisations



Where and how
works our
money?

Publishers



Data and Articles
need to be
combined

Libraries



Data Archive



Data Management Hub



simple



social



neutral



kubrik.io



secure



authentic



resistant



References

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www.economist.com/news/science-and-technology/21707513-poor-scientific-methods-may-be-hereditary-incentive-malus [cited 22 September 2016]
- [3] Interplanetary File System <https://ipfs.io>
- [4] "Introduction: What Is A Blockchain?" Ingo Keck. 12 January 2017. [cited 23 January 2017]
<https://medium.com/@ingokeck/introduction-what-is-a-blockchain-f22510332bff#.ramz7ngqj>
- [5] "All you need to know about blockchain, explained simply." Rosamond Hutt. 17 June 2017. [cited 23 January 2017]
<https://www.weforum.org/agenda/2016/06/blockchain-explained-simply/>
- [6] Since July 2016 every application under Horizon 2020 program must include Data Management Plan - H2020 Program Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020, Version 3.1., 25. page 8, August 2016
https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf [cited 23 January 2017]
- [7] All publicly funded research outcomes (data and articles) must be made as Open Access under Horizon 2020 rules
https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf [cited 23 January 2017]



5 Reasons Why Data Management Hub is needed:

1. Every day research data gets lost.
2. Data Management Hub will enable scientists to build reputations and advance their careers by preserving data authorship.
3. Data management plan is compulsory for all new funding applications.
4. Data Management Hub preserves authenticated and versioned research data for replication of scientific studies.
5. Data Management Hub will revolutionize scientific data management like github did it for open source coding.