

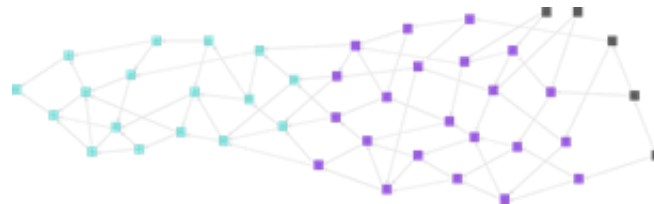


Redefining the Space Race
Why We Need a Collaborative Data Commons

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ESA Phi Week 2019

Our Vision – The IOTA Tangle

Enable all connected devices, through verification of truth.
Create a world in which the IOTA protocol serves as a collaborative commons, a tool to collectively overcome societal and ecological challenges. A public, permissionless backbone for the Internet of Things, enabling true interoperability between all devices.



Highly
Scalable



Zero-fee
transactions



Low resource
requirements



Secure data
transfer



Off line
transactions

Bridging the Human and Machine Economy

Economy of Things
IoT / M2M



*Devices trade resources
among each other
P2P IoT Data Marketplaces*

Smart Community
Sharing Economy



*Anything with a chip
can be leased*

Citizen Centricity
“GDPR as an opportunity”



*Citizen can control and share
their personal and user data
securely & privately*

5G – A Dangerous New Paradigm?

- Rather than a protocol or device, 5G refers to an array of networking technologies meant to work in concert and using two different frequency ranges
- 5G stands to replace wired connections and open the door for many more devices to be connected and updated via the internet
- IOTA can secure communications in a way that protects data as it flows across different systems and through virtual networks



5G, Internet of Things and Earth

Observation

- A combination of DLT, IoT and EO systems can leverage the bandwidth of 5G networks for new models of value creation while reducing the vulnerabilities of open networks themselves.
- Resilience of networks is a concern of public security and will be critical to the functioning of our future society
- Mesh-networks, 5G and satellites have to be integrated to provide the necessary redundancy and cater to a global audience
- **How can we deal with the massive amount of data produced by these systems?**



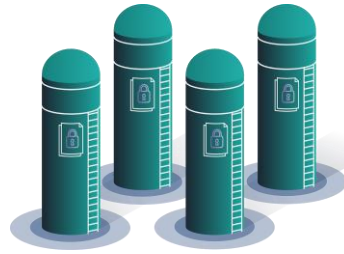
Unlocking New Insights

Sustainable Development Goals



Need to understand the overall progress towards the SDGs and individual indicators

Knowledge Gap & Finance Gap



Data is locked in institutional silos, creating monopolies and hindering scientific analysis

Opening Data Silos



Citizens and institutions control and share their personal and user data securely

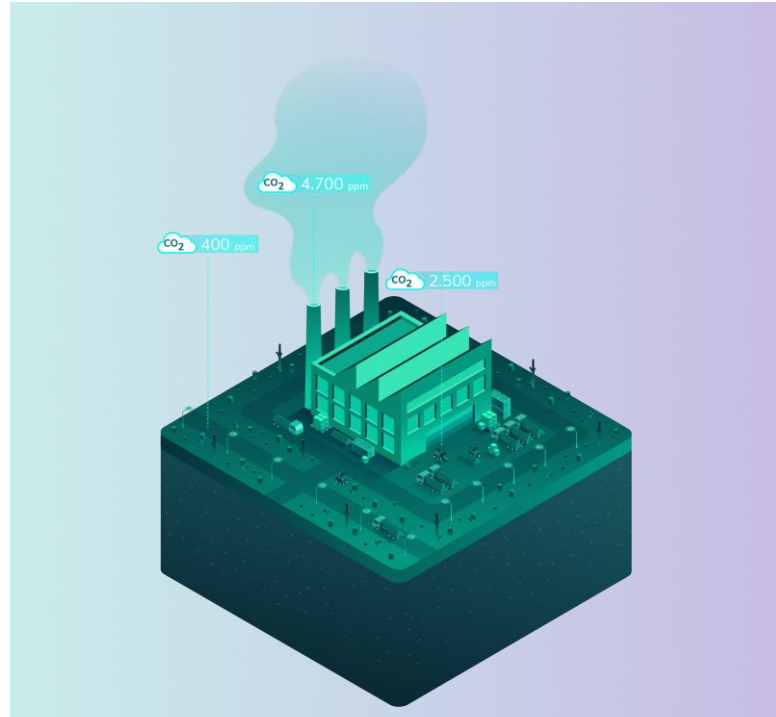
Situational Awareness & Interventions

- Only the integration of different data sources allows targeted real-time interventions
- DLT enabled identity for people and devices together with Earth Observation improves situational awareness in all environments from supply chains to humanitarian disasters



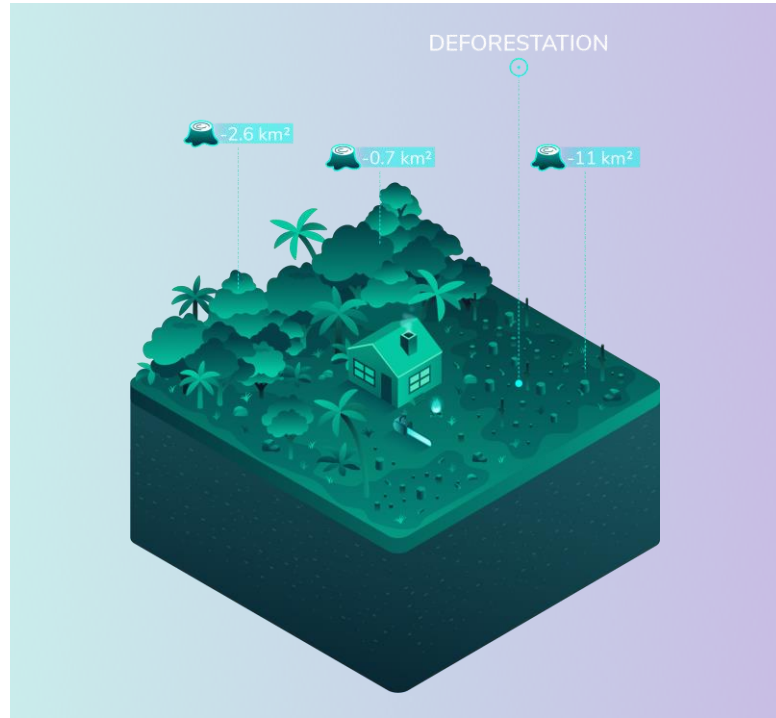
Internalizing Externalities

- Externalities are a root-cause of today's ecological challenges – people and organizations do not pay a fair price for their extraction of natural resources
- Proof of the immutability of (EO) data and the traceability of such data and information products makes it easier to link individual action with the corresponding effects on the environment
- Automated certification and auditability are a necessary means to trust regulatory schemes and incentivize action



A Regenerative Economy

- Digital representation of (natural) assets can improve our awareness of the existence and value of ecosystems as creators of economic value
- Ownership and property rights create the legal certainty to protect these assets
- Certification and land rights are new incentives for community collaborations and collective action



IOTA Data Marketplace – A Collaborative Commons

- Makes high-quality, high periodicity, and tamper-proof data streams available to researchers, institutions, investors and individuals alike.
- Store, share and monetize data over a decentralized network as well as access real-time data streams
- Provides both the means to openly share data as well as encrypting and securing sensitive data streams

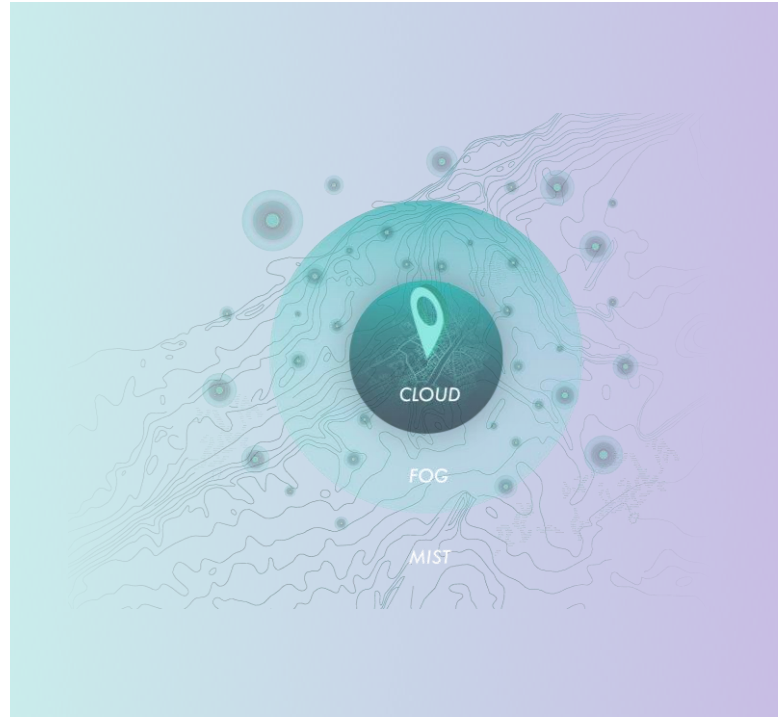


A Truly Distributed Web

Sharing and allocation of resources in real-time through an open data commons can open the black box of the Internet of Things and put societal needs first.

What is needed?

- Ecosystem approach
- Standardization
- Cross-sector collaboration





Questions?

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Contact us



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