Trustworthiness in Data-driven Artificial Intelligence of Things (AIoT)

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IoT and Data – Artificial Intelligence of Things (AIoT)

From Connecting Devices to Creating Value

Extension of IoT Applications

Leverage the massive amount of data

Data Explosion

Artificial Intelligence of Things

AI: Data-based learning

Big Data: Capture, storage, analysis of data

IOT: Data Collection through IoT

+ Autonomy

+ Optimization

+ Remote Control

Identification/Sensing
Data-driven AIoT

Data Security, Privacy, Trust and Governance for trustworthiness in AIoT

Trustworthiness encompasses the concerns of security, privacy, safety, reliability and resilience, which are too often addressed separately and in isolation in risk management approaches. (NIST CPS Framework)
Trust is an essential element in Big Data and Analytics for Intelligence.

“Trust is the oxygen which will breathe life into the IoT. Industry needs to show data is safe and that it is properly treated.” (source: www.techuk.org.)

Source: ITU-T FG-DPM Ad-hoc group (by Nathalie Feingold)
**Blockchain - Internet of Value**

**A machine for creating trust**

- The currency in the Internet is **data**.
- Revolutionizes how transactions are recorded – a **decentralized digital ledger** that records transactions – builds **trust** with **accountability** and **transparency**.

The **IoV** is as a platform of the next generation Internet that enables various types of assets to be digitalized and represented as digital value using **Blockchain**.
Data Economy - Data-driven services

An intelligent nerve that facilitates the **data trading**, **data exchange** and **data management** that facilitates the **business** development, at the same time that satisfies the **regulations**.

Build a **Data Economy Ecosystem** that offers **lawfully and GDPR compliance by default**

- a **Distributed Ledged Technology (DLT)** to empower with a responsible use of data, establishing **trust** through transparency and accountability.
Toward Decentralization

Decentralisation: the next big step for the world wide web

The decentralised web, or DWeb, could be a chance to take control of our data back from the big tech firms. So how does it work and when will it be here?
Secure Decentralized Artificial Intelligence of Things (AI + Blockchain + IoT)

Proliferation of AI

Trustworhiness in AIoT ➔ Beyond Conventional Security Solutions

• Transparency
• Data protection
• Privacy preserving
• Policy and regulatory issues
• Ethics

Linking between Data and AI

Human -Technology

Transparency
Data protection
Privacy preserving
Policy and regulatory issues
Ethics