## FG-DPM WG3 : Data sharing , Interoperability and Blockchain

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### FG DPM WG3: Data sharing, Interoperability and Blockchain

#### WG3

Data sharing, Interoperability and Blockchain

- Data accessibility and data sharing
- Data interoperability
- Use of blockchain approach in DPM



### FG DPM WG3: Data sharing, Interoperability and Blockchain

#### WG3 Deliverables

1	D3.2	Technical Enablers for Open Data Platform
2	D3.3	Framework to support data interoperability in IoT environment
3	D3.5	Overview of Blockchain for supporting IoT and SC&C in DPM aspects
4	D3.6	Blockchain-based data exchange and sharing
5	D3.7	Blockchain-based data management
6	D3.8	Identity framework for supporting blockchain based data sharing



### FG DPM WG3: Data sharing, Interoperability and Blockchain



### **FG DPM WG3 Progress** WG3 initials another 2 Deliverables (D3.2 and D3.3) -2017.10 -2018.05 -2017.07-2018.02 FG DPM WG3 initials 3 Deliverables (D3.5, D3.6 & D3.7) WG3 initials new deliverable (D3.8) -2019.01 -2019.07 WG3 had completed deliverables -2019.04 -2018.09WG3: **4** Deliverables were agreed and forwarded to ITU-T SG20

# FG-DPM WG3 outputs: (D3.2 and D3.3)

WG3	Data sharing, Interoperability and Blockchain
D3.2 TS:Sensor Things API – Sensing	• The SensorThings API provides an open standard-based and geospatial- enabled framework to interconnect the Internet of Things devices, data, and applications over the Web.
D3.3 TS: Framework to support data interoperability in IoT environments	<ul> <li>Overview of data interoperability in IoT environments;</li> <li>Requirements to support data interoperability;</li> <li>Functional model to support data interoperability;</li> <li>Details on the semantic mediation functions, syntactic mediation functions, interoperable object abstractions functions ect;</li> </ul>



### FG-DPM WG3 Outputs : Blockchain (D3.5-D3.8)

D3.5 TR: Overview of IoT and Blockchain in for supporting IoT and SC&C in DPM aspects	<ul> <li>Analysis on challenges, characteristics, common reference model of blockchain in DPM in DPM aspects</li> <li>Analysis on key issues for blockchain in DPM aspects;</li> <li>Analysis on effects when using blockchain in DPM aspects.</li> </ul>
D3.6 TS: Bockchain based Data Exchange and Sharing for supporting IoT and SC&C	<ul> <li>Requirements ,Functional models and platform of blockchain-based data exchange and sharing;</li> <li>Deployment modes for blockchain-based data exchange and sharing</li> </ul>
D3.7 TS: Bockchain-based Data Exchange and Sharing for supporting IoT and SC&C	<ul> <li>Requirements of blockchain-based data management;</li> <li>Generic reference model of blockchain-based data management;</li> <li>Common capabilities and procedures of blockchain-based data management</li> </ul>
D3.8 TS: Identity framework in blockchain to support DPM for IoT and SC&C	<ul> <li>Overview of identity framework in blockchain;</li> <li>Requirements of fidentity framework in blockchain to support DPM</li> <li>Functional model of blockchain identity framework to support DPM</li> </ul>

# Key issues on blockchain in DPM

Identification and authentication/

Data generation and storage

Data exchange and sharing

Data management

Key issues for blockchain to support IoT and SC&C in DPM aspects (D3.5) Data security and privacy

Cross-chain interaction and data mitigation

Data auditing, tracking and tracing



### **Blockchain based data sharing and exchange**



### **Blockchain-based data management**



