

Fifth ITU Workshop on “Data Processing and Management for IoT and Smart Cities & Communities” (Geneva, 25 November 2019)

# ITU-T FG-DPM: The Way Forward

**Gyu Myoung Lee**

Chair, ITU-T FG-DPM

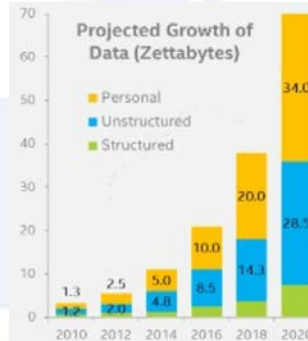
[gmlee@kaist.ac.kr](mailto:gmlee@kaist.ac.kr)



# From Connecting Devices to **Creating Value**



## Data Explosion



Leverage the massive amount of data

## Artificial Intelligence of Things



AI: Data-based learning



Big Data: Capture, storage, analysis of data



IOT: Data Collection through IoT

1<sup>st</sup> Forum on Data Management (Dubai)



**SG20**

## FG-DPM: Overall objectives

- Promote the establishment of trust-based data management frameworks for IoT and SC&C
- Investigate existing and emerging technologies
- Identify and address standardization gaps and challenges



# ITU-T FG-DPM Meetings (1)

1<sup>st</sup> meeting: 17-19 July 2017 (Geneva)



2<sup>nd</sup> meeting: 20-25 October 2017 (Geneva)



3<sup>rd</sup> meeting: 19-23 February 2018 (Brussels)



4<sup>th</sup> meeting: 1-3 May 2018 (Cairo)





# FG-DPM Meetings (2)

5<sup>th</sup> meeting: 17-20 September 2018 (Tunis)



6<sup>th</sup> meeting: 14-18 January 2019 (Seoul)



7<sup>th</sup> meeting: 3-7 April 2019 (Geneva)



8<sup>th</sup> meeting: 15-19 July 2019 (Geneva)



# ITU-T DPM Workshops

1<sup>st</sup> workshop: 19 February 2018 (Brussels, EC)



<https://webcast.ec.europa.eu/workshop-on-data-processing-and-management-for-iot-and-smart-cities>

2<sup>nd</sup> workshop: 17 September 2018 (Tunis)

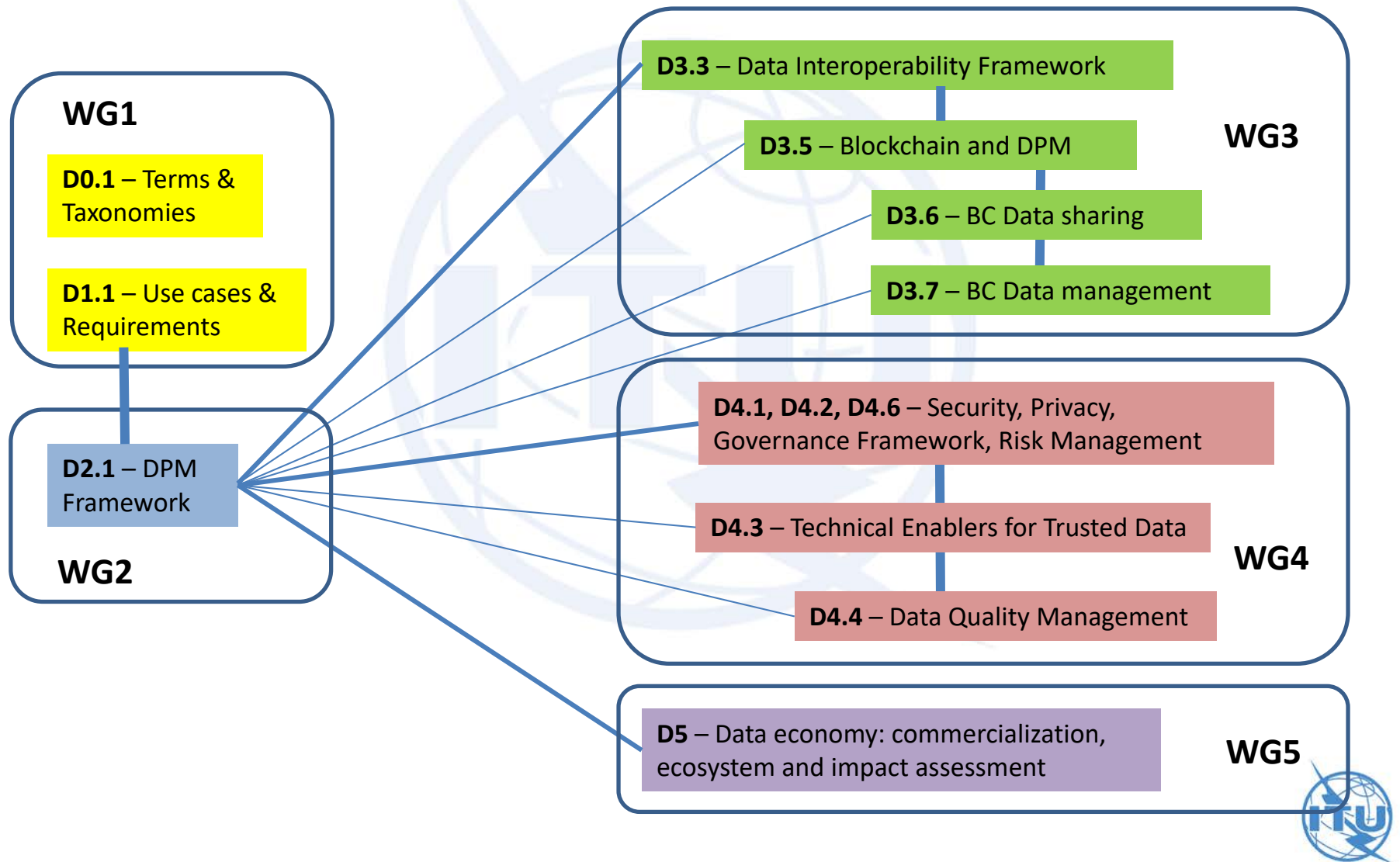


3<sup>rd</sup> workshop: 14 January 2019 (Seoul)





# FG-DPM Core Deliverables

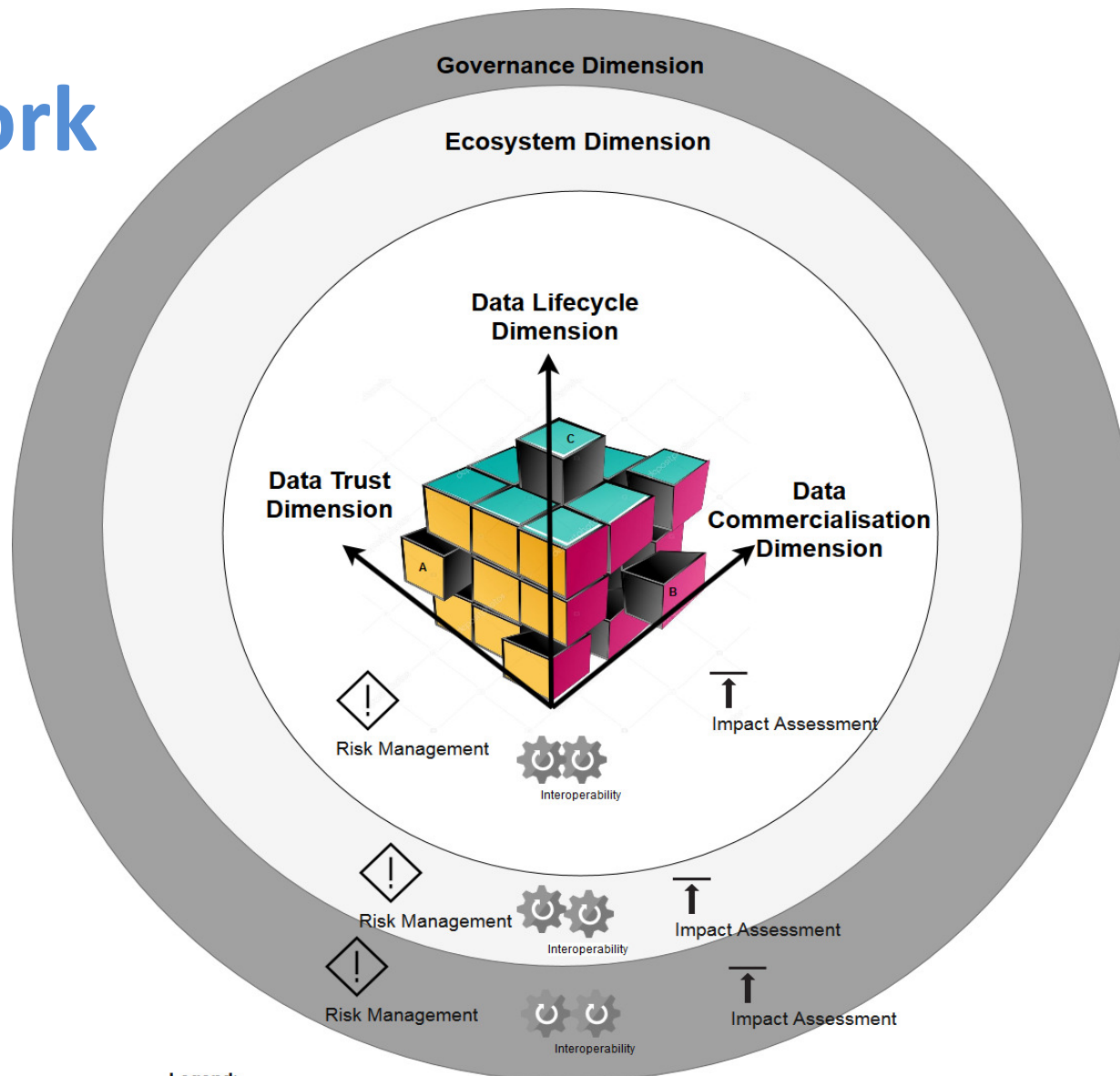


# ITU-T FG-DPM - list of Deliverables

All 15 Deliverables: <https://www.itu.int/pub/T-FG-DPM>

Deliverable	Title	Output document
<b>D0.1</b>	Technical Specification “Data Processing and Management for IoT and Smart Cities and Communities: Vocabulary”	<a href="#">FG-DPM-O-172-R2</a>
<b>D0.2</b>	Technical Report “Data Processing and management for IoT and smart cities and communities: methodology for data processing and management concept building”	<a href="#">FG-DPM-O-173-R1</a>
<b>D1.1</b>	Technical Specification “Use case analysis and requirements for data processing and management to support IoT and smart cities and communities”	<a href="#">FG-DPM-O-174-R1</a>
<b>D2.1</b>	Technical Specification “Data processing and management framework for IoT and smart Cities and communities”	<a href="#">FG-DPM-O-175-R3</a>
<b>D2.3</b>	Technical Report “Web based data model for IoT and smart city”	<a href="#">FG-DPM-O-176</a>
<b>D3.2</b>	Technical Specification “SensorThings API – Sensing”	<a href="#">FG-DPM-O-156</a>
<b>D3.3</b>	Technical Specification “Framework to support data interoperability in IoT environments”	<a href="#">FG-DPM-O-157</a>
<b>D3.5</b>	Technical Report “Overview of blockchain for supporting IoT and SC&C in DPM aspects”	<a href="#">FG-DPM-O-151</a>
<b>D3.6</b>	Technical Specification “Blockchain-based data exchange and sharing for supporting IoT and SC&C”	<a href="#">FG-DPM-O-177</a>
<b>D3.7</b>	Technical Specification “Blockchain-based data management for supporting IoT and SC&C”	<a href="#">FG-DPM-O-152</a>
<b>D3.8</b>	Technical Specification “Identity framework in blockchain to support DPM for IoT and SC&C”	<a href="#">FG-DPM-O-178</a>
<b>D4.1</b>	Technical Report “Framework for security, privacy, risk and governance in data processing and management”	<a href="#">FG-DPM-O-170-R1</a>
<b>D4.3</b>	Technical Report “Overview of technical enablers for trusted data”	<a href="#">FG-DPM-O-168-R2</a>
<b>D4.4</b>	Technical Report “Framework to support data quality management in IoT”	<a href="#">FG-DPM-O-171-R1</a>
<b>D5</b>	Technical Specification “Data economy: commercialization, ecosystem and impact assessment”	<a href="#">FG-DPM-O-169</a>

# DPM Framework



## Legend:

Point A: Trusted, and Processed data over the Trust and Data lifecycle dimensions, but not commercialised

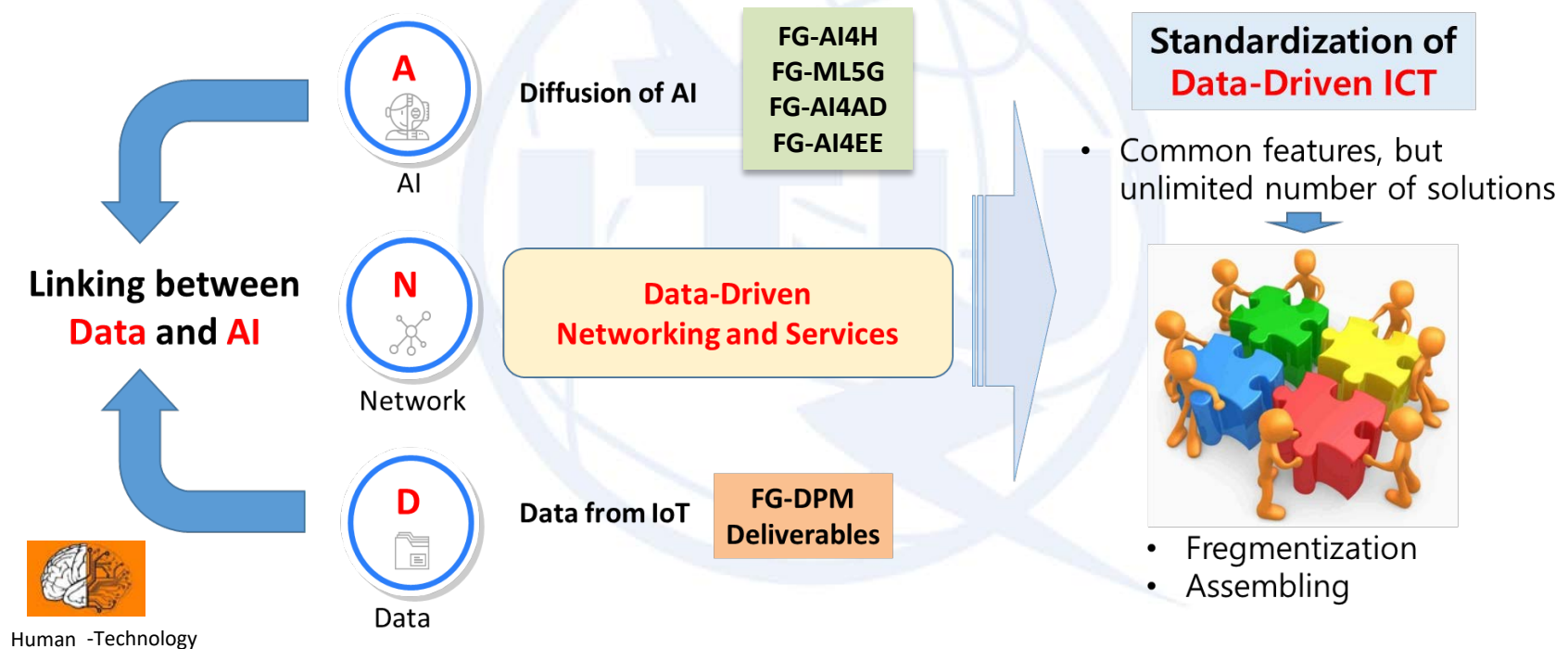
Point B: Processed and commercialised data over the Data lifecycle and commercialisation dimensions, but not trusted

Point C: Trusted, Processed and commercialised data over the Trust, the Data lifecycle and commercialisation dimensions





# Impact of FG-DPM Deliverables



# Concluding Remarks

- **Data is the new Oil**
  - DPM is an essential element in emerging converged technologies (**IoT, Big Data, Analytics**).
- **ITU-T FG-DPM**
  - Pave the way for standardization on data ecosystem and services
- **Future Plan**
  - Accelerate ITU-T SG20 activities
  - Closely collaborate with other groups in ITU and related SDOs
  - Promoting activities
    - Advertise FG-DPM deliverables
    - Academic publications

# Thank You





