egm
INNOVATION FACTORY

Positioning of the work

Franck Le Gall

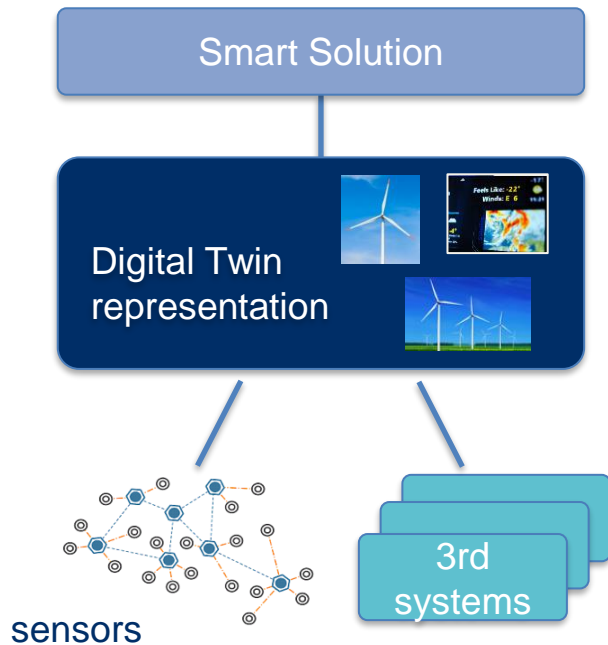*Workshop on Handling of Digital Twins with NGSI-LD*
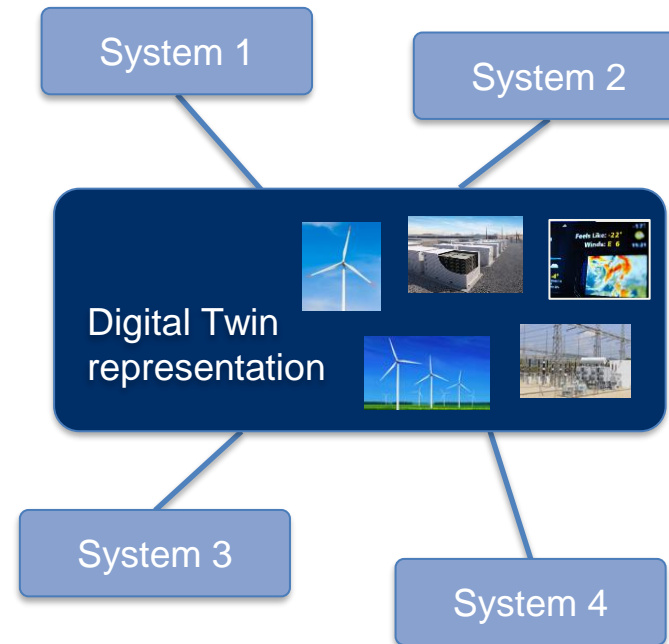
05/07/2022

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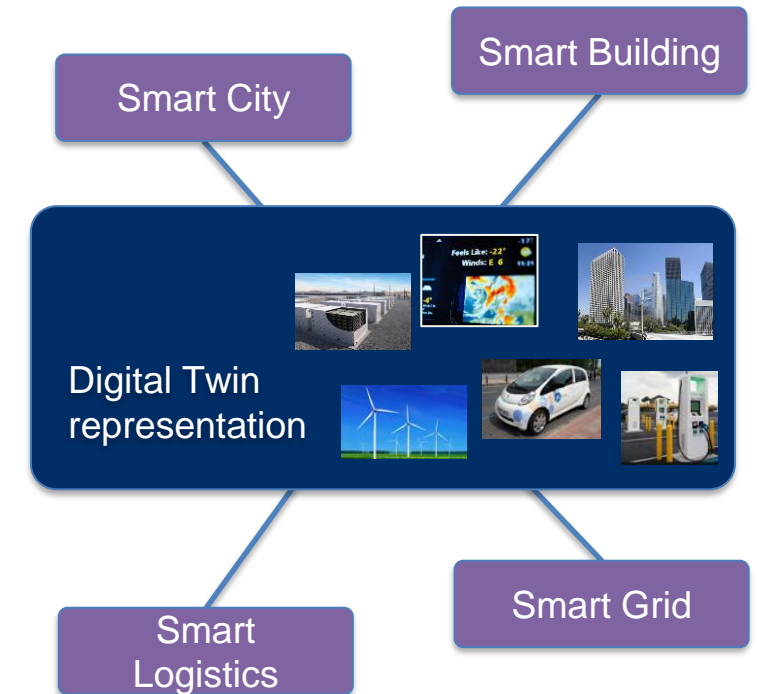# Digital Twins: an approach for integration at multiple levels

Architecting Smart Solutions

**Integrating systems and data within organizations (system of systems)**

Sharing Data across organizations (Data Spaces)
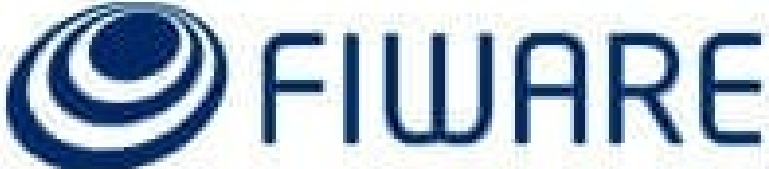
FIWARE

What are we referring to as Digital Twin?

- **Digital Twin** = Digital representation of a real-world asset
  - Characterized by attributes
    - Properties
    - Relationships (Linked Data)
  - Values of attributes may change over time (or not)
  - Typically have a location (but it is not a must requirement)

- (digital representation of) **Context** = Digital Twins Collection

- **Cornerstone for the development** of interoperable and replicable (portable) Smart Solutions:
  - **Standard API** for getting access to Digital Twin data (context)
  - **Common Data Models** associated to Digital Twin classes
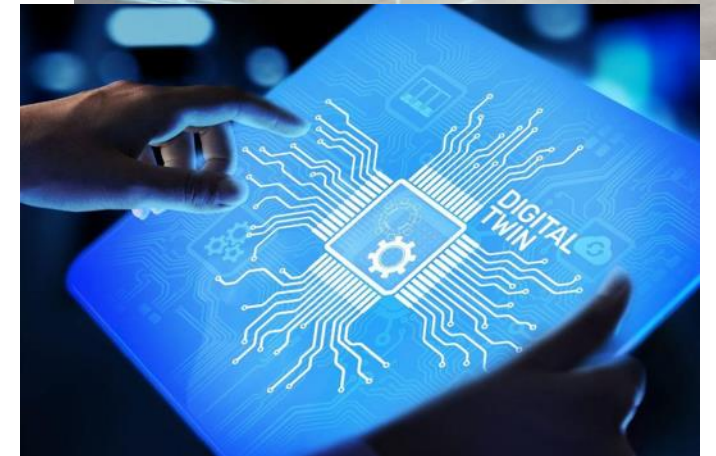
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ETSI / FIWARE FOUNDATION JOINT ACTIVITIES ON DIGITAL TWIN

Regular workshops and meetings Implementations

Draft ETSI GR CIM 017 V0.0.3 (2021-12)

GROUP REPORT

Context Information Management (CIM); Feasibility of NGSI-LD for Digital Twins

Group report

FIWARE FOR DIGITAL TWINS

POSITION PAPER / VERSION 1.0 / JUNE 2021
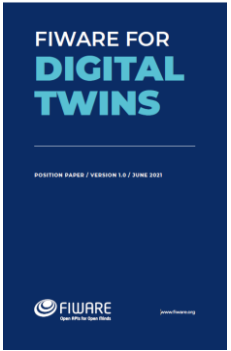
FIWARE for Digital Twins

Enablers

AGENDA

Topic	Item	Presenter	Duration
A - Introduction to DT and high level requirements extraction	Positioning of the work	Franck Le Gall (EGM)	3'
	Example of analysed use case	Francisco (FIWARE Foundation)	6'
	Digital twin capabilities	Franck Le Gall (EGM)	6'
	Q&A		15'
B - DT representation in the NGSI-LD context	Introduction to NGSI-LD	Martin Bauer (NEC)	5'
	DT definition and representation NGSI-LD	Pauline Folz (Orange)	5'
	Architectural approach	Martin Bauer (NEC)	5'
	Q&A		15'
C - Actuation and DT service	Handling of actuation	Giuseppe Tropea (CNIT)	8'
	Generalised Service execution for Digital Twins	Martin	7'
	Q&A		15'
D - Closing	Invited pitches of Digital Twin use case related to NGSI-LD	• Vincent Demortier (Faubourg Numérique) : AAS mapping • Ali Shaukat (Simula Research) : elevator use case • Gilles CIEZA (newgeneration) : cloud infrastructure management • Open floor	5'/pitch
	Review of collected feedback from the online whiteboard	Lindsay Frost (NEC)	15'

Thank You!

Franck LE GALL

CEO

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