

**tsds**  
India's Telecom SDO

Telecommunications  
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# TECH DEEP DIVE

TTDD 2022 CONFERENCE (5<sup>th</sup> EDITION)

**STANDARDS FOR SUSTAINABLE DEVELOPMENT**



**Date: 7-10 November 2022**

**Session No. 9: Interoperability & Test Labs**  
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# Interoperability & Common information model – Significance in Digital Transformation

Interoperability can be defined as the “ability for digital systems and system components to interconnect and perform coordinated operations, often despite differing architectures and origins”

# The road to sustainability

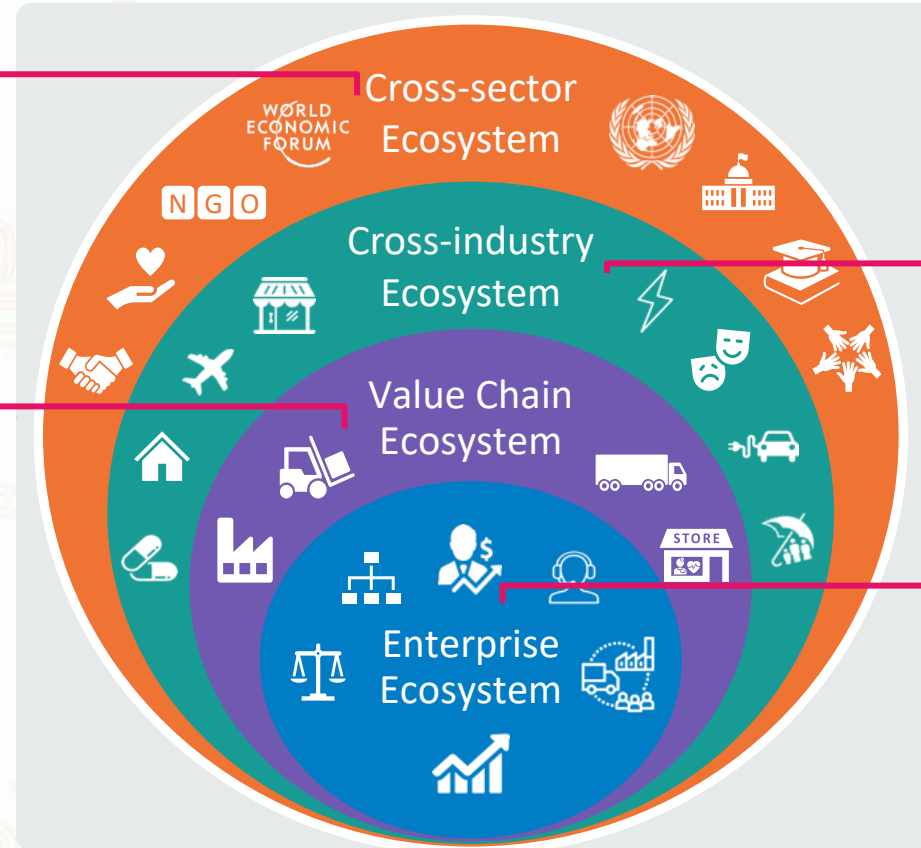
We believe no single organization can create a regenerative future

## Nurture regenerative economies

Foster bioregional economies that empower self-reliant, local communities.

## Evolve sustainable value chains

Establish sustainable value chains through collaborative industry ecosystems.



## Drive sustainable living

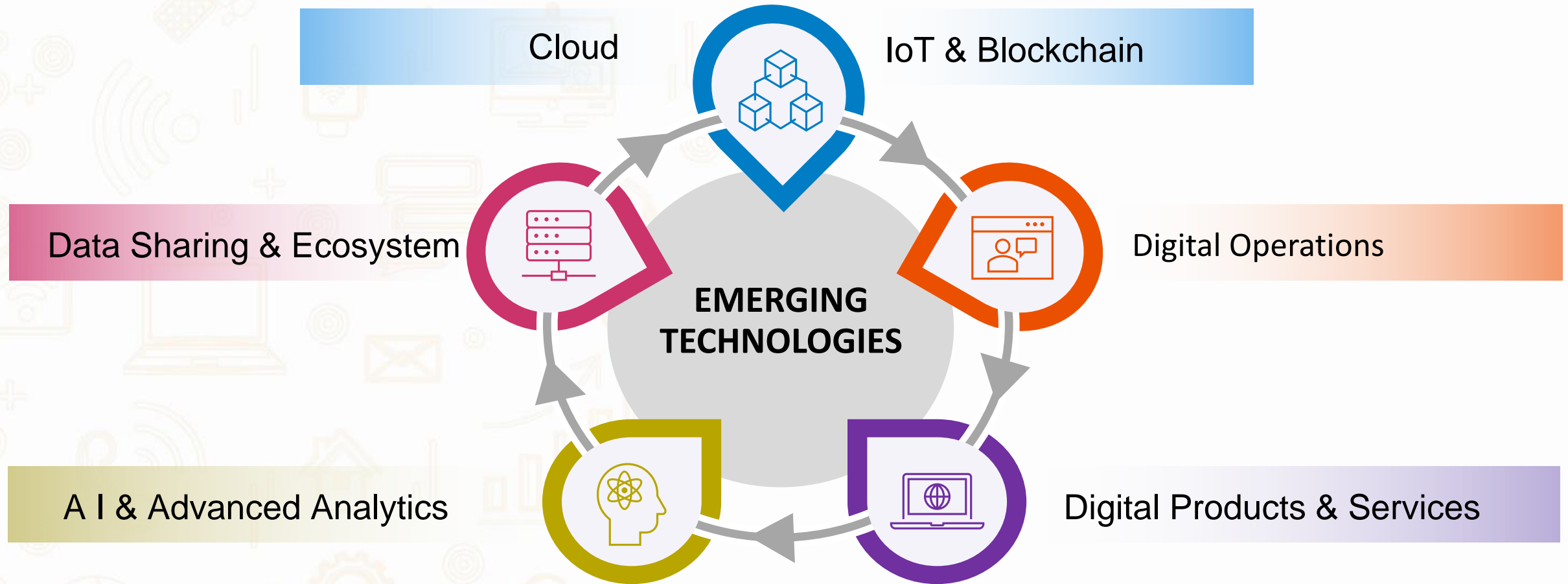
Create sustainable life experiences and ensure sustainable consumption through multi-industry, cross-sector ecosystems.

## Build a sustainable enterprise

Be sustainable, agile and resilient while innovating sustainable products and services.

An “ecosystem approach” is needed ... across 4 horizons .....

ICT act as an integrator of all these emerging technologies that contribute to the SDG goals



ICT act as an integrator, governing and setting performance standards crucial to ensure the best use of the mentioned technologies

# Need Interoperability

## Emerging trends / challenges

### VALUE CHAIN ORCHESTRATION

Enhancing the value chain through Interoperability

Companies will need to **ensure their data is protected** in interoperable value chains

### PLATFORMS TO FEDERATE DATA

**Fed4FIRE+** project provided open, accessible and reliable interoperable testing facilities to researchers and innovators

**GENI (Global Environment for Network Innovations)** provides a virtual laboratory for networking and distributed systems research and education

### CROSS INDUSTRY & PLATFORM COLLABORATION

**Open APIs have made it easier** to increase interoperability between platforms, with many having **native integrations** that embed one platform into another. **Third party apps** may also be used to allow for platform interoperability

### DATA PRIVACY & SECURITY

Companies are always looking to **protect sensitive and confidential data** including customer information and intellectual property

**Industry accreditation and certification of IT networks** are crucial to solidify data protection and encourage companies to take part in interoperability

### STANDARDIZATION

Standardizing APIs

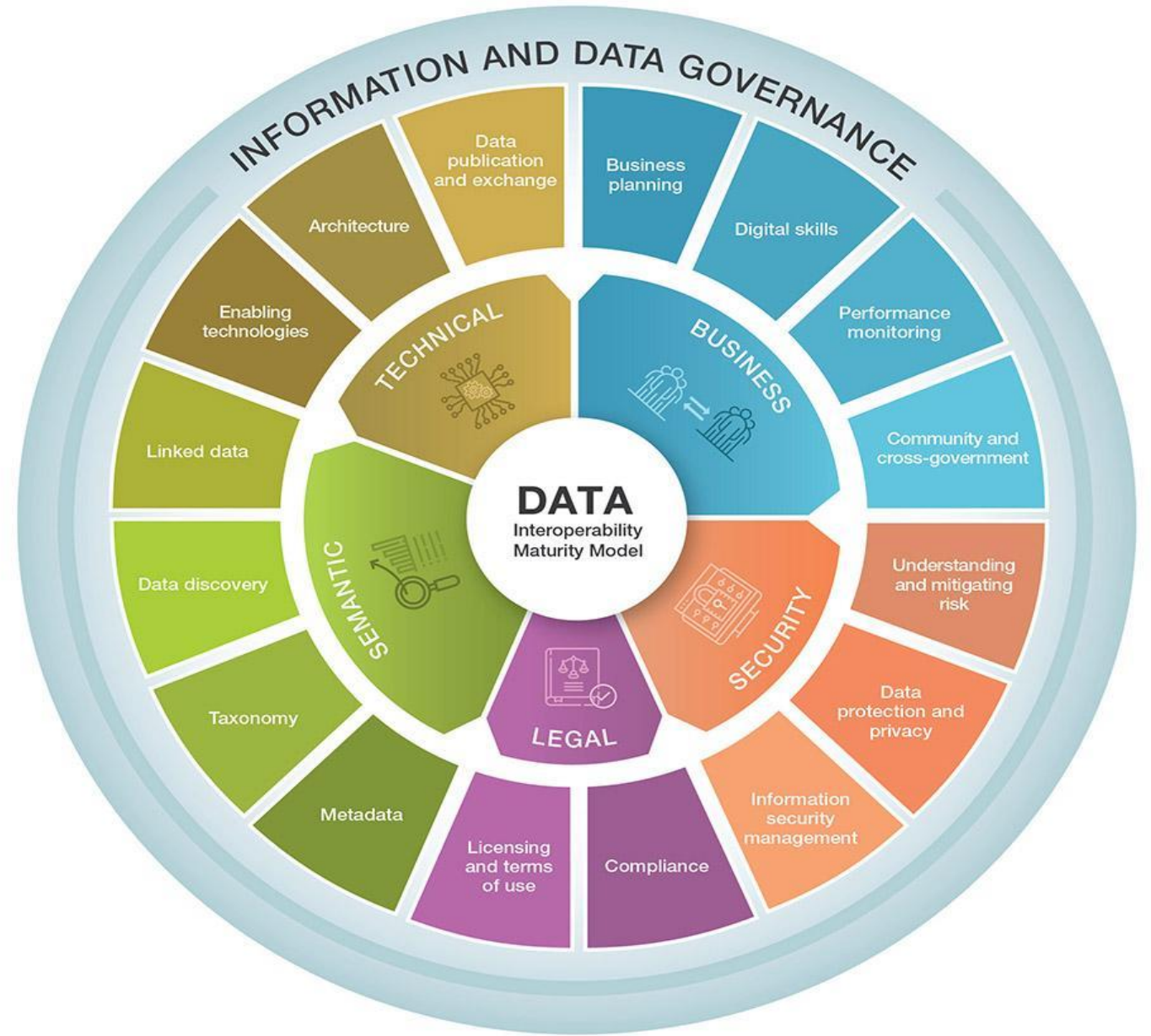
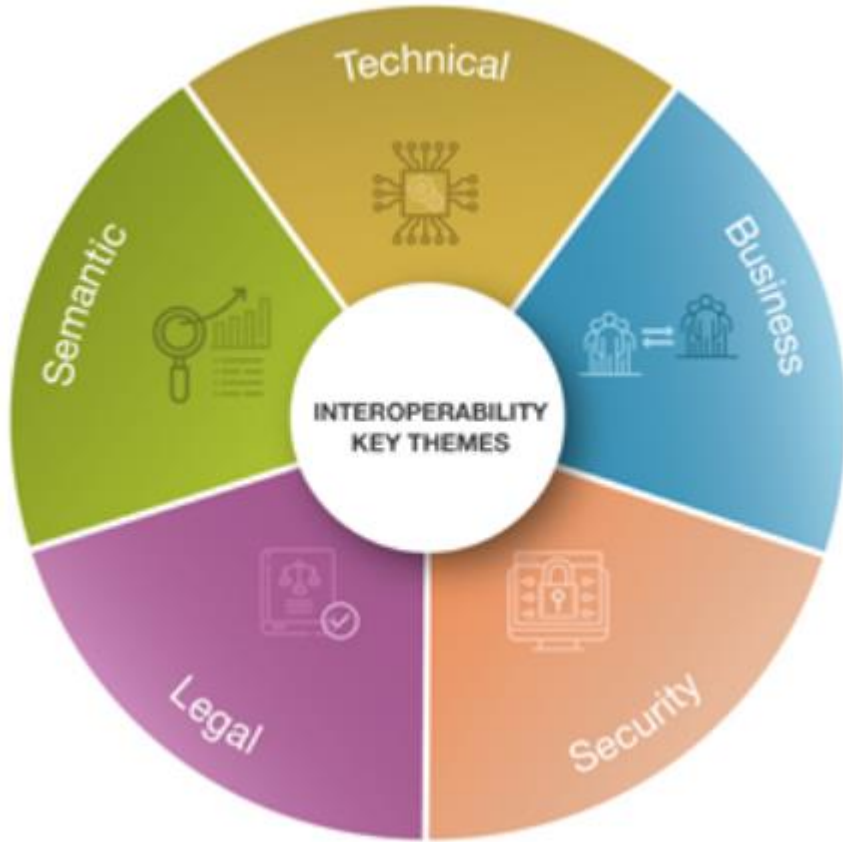
Standardizing industry data models

The standardization of APIs and industry data models is another **key step for interoperability development**



# Interoperability

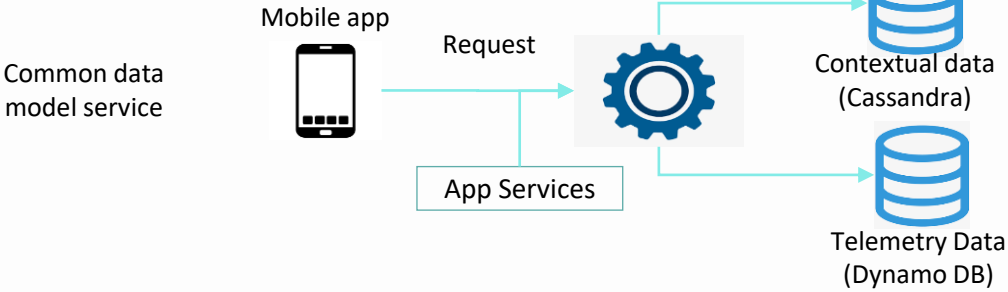
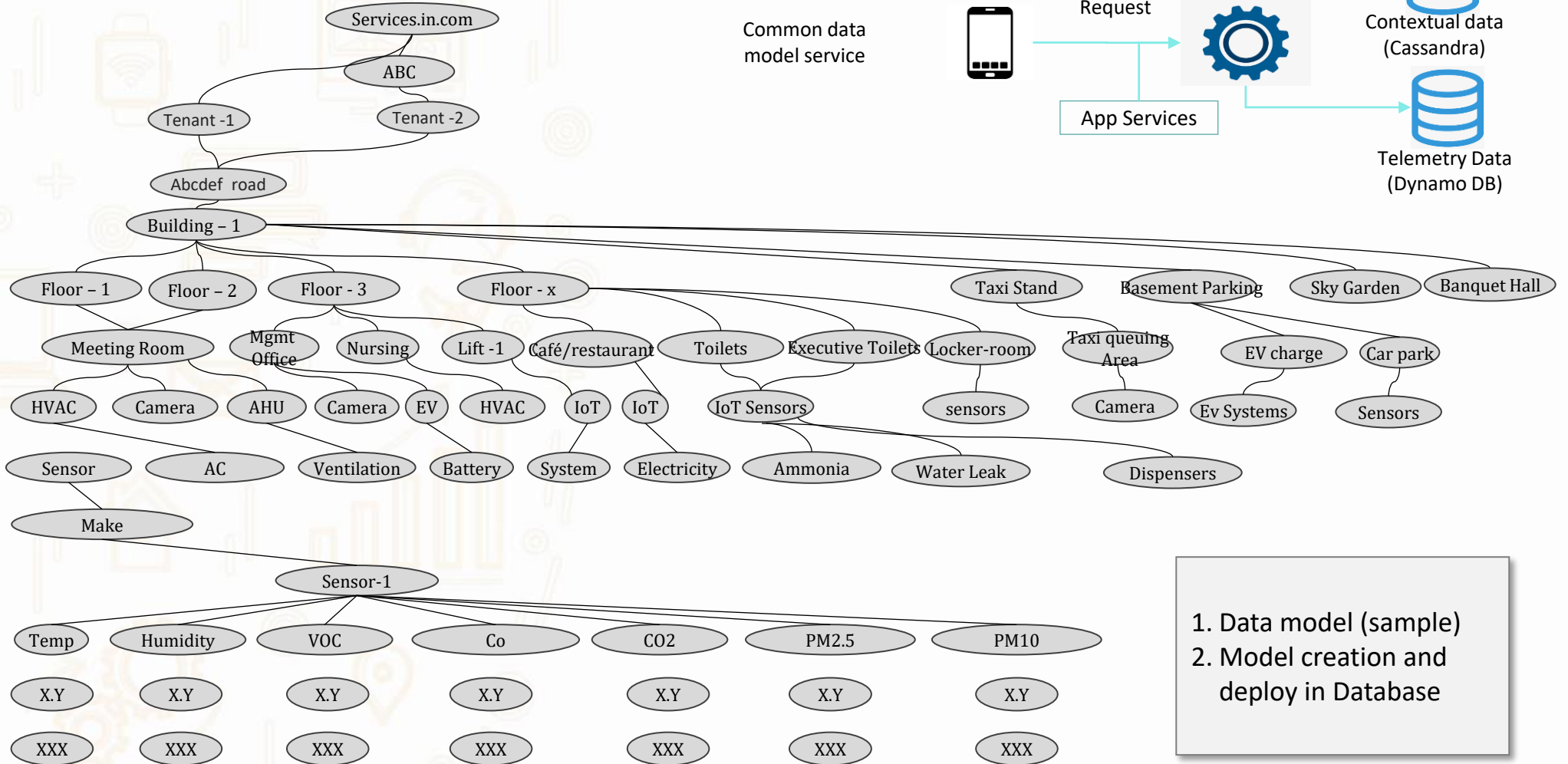
Key themes to consider



# Interoperability

## In the context of Common Information Model – Smart Building (sample)

Domain
Owner
Tenant Org
Site
Building
Floor
Area, Room
Category
Kind
Type
Device Name
Key
Value
Units



1. Data model (sample)
2. Model creation and deploy in Database

# Interoperability

## In the context of “Data Marketplace”

Ecosystem Enabler

Trusted Data Partners

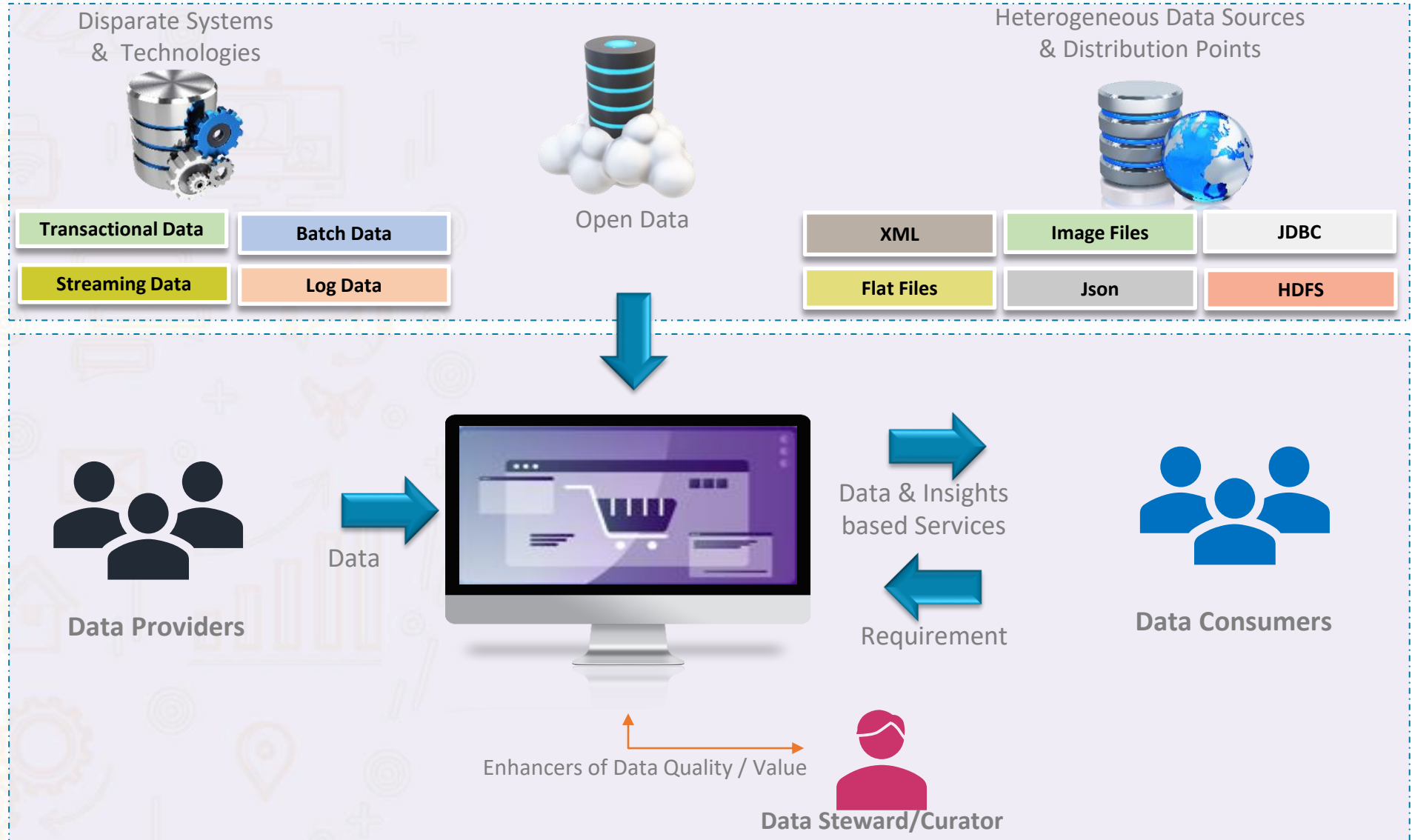
Self Service Concept

Business Ready Data

Data Security

Data Privacy

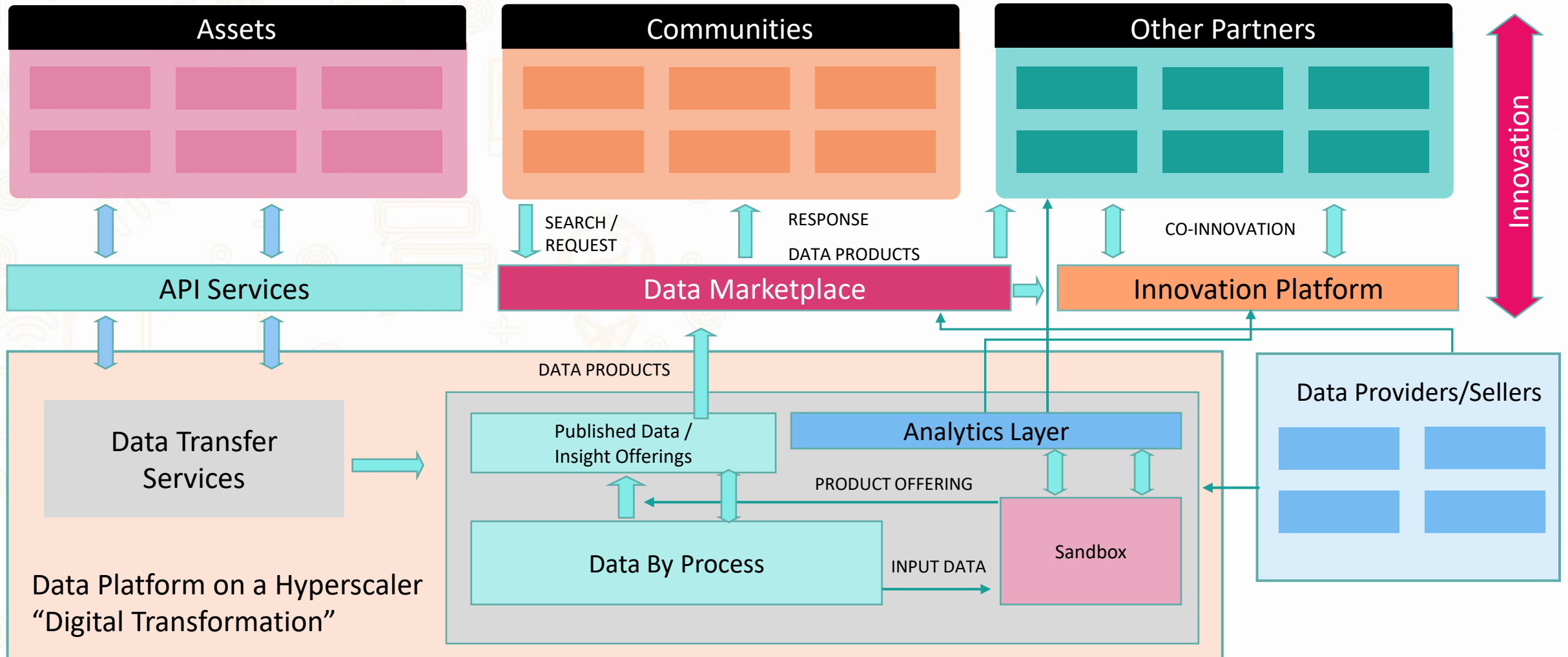
Collaboration





# Data Platform | Marketplace

## Enabling Digital Transformation



**ICT infrastructure governed by ITU standards can accelerate "Innovation & Start-up"  
EQUITABLE & AFFORDABLE TO ONE AND ALL**

Thank You