

Smart Cities Innovation Center

University of Guadalajara

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UDG Smart Cities Innovation Center



Centro de Innovación
en Ciudades Inteligentes



COECYTJAL
Consejo Estatal de Ciencia
y Tecnología de Jalisco



IEEE

Smart Cities



Thematic School on
Artificial Intelligence
for Sensor Data Intelligent Exploitation
to Develop Smart Cities

4th October 2021



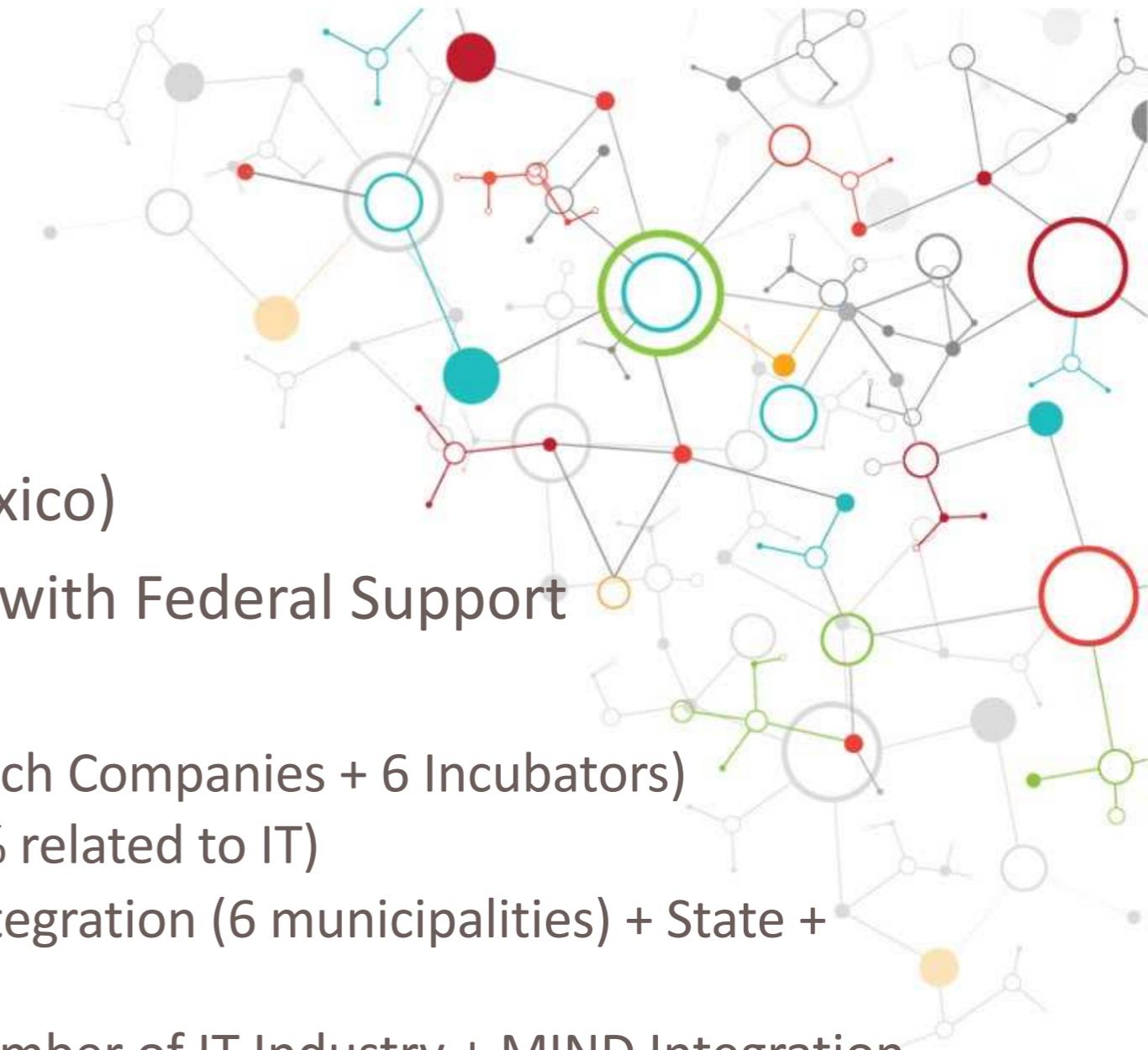
Guadalajara

Silicon Valley of Mexico

The inexhaustible city of social
innovation

GDL Technical Facts

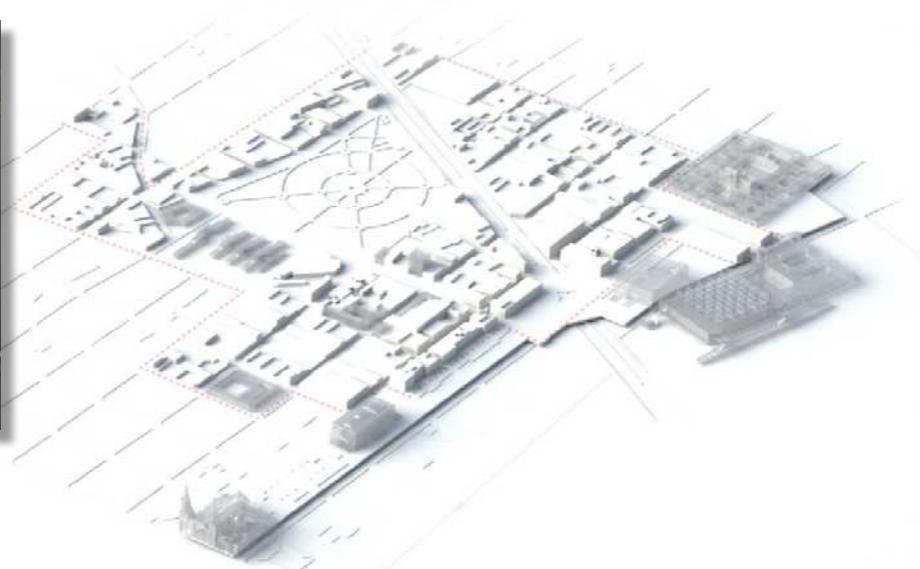
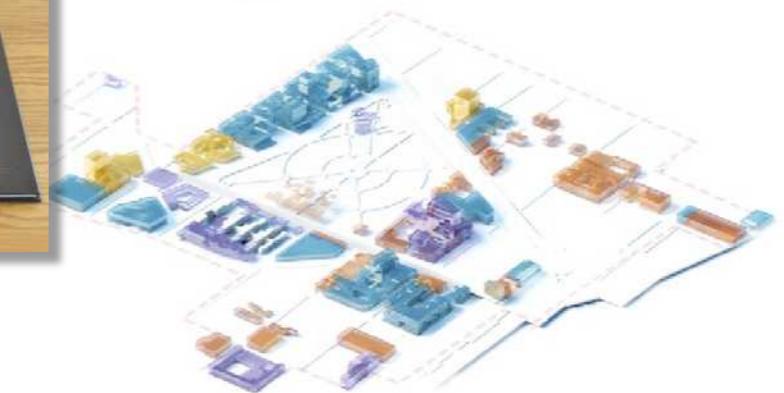
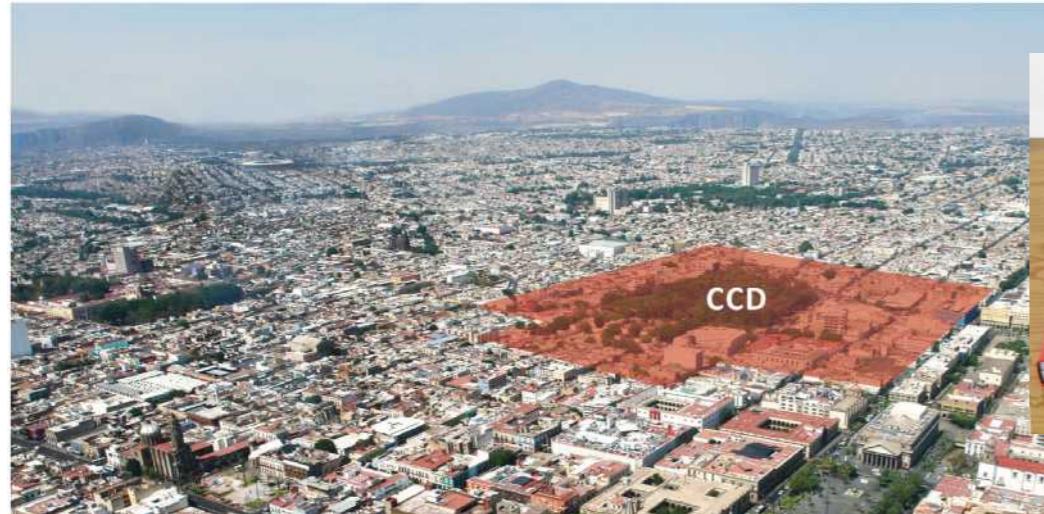
- 5 Million Habitants (2nd City in Mexico)
- Smart City project started in 2012 with Federal Support
- High Integrated Ecosystem
 - Industry – Silicon valley (600 High Tech Companies + 6 Incubators)
 - Academia – +200,000 Students (20% related to IT)
 - Government – Metropolitan area integration (6 municipalities) + State + Federal support
 - NGOs – Chamber of Commerce, Chamber of IT Industry + MIND Integration



A blurred, black and white photograph of a city street at night. The scene is filled with streaks of light from moving vehicles, creating a sense of motion. Buildings are visible in the background, and a road curves through the center. The overall atmosphere is dynamic and urban.

Smart Cities endeavor to improve the
real world by connecting into the
digital world to explore optimal
solutions

GDL Digital Hub @ CCD + UDG Smart Cities Living Lab





Looking to share knowledge by real
experience building a Smart City

Kansas
Guadalajara

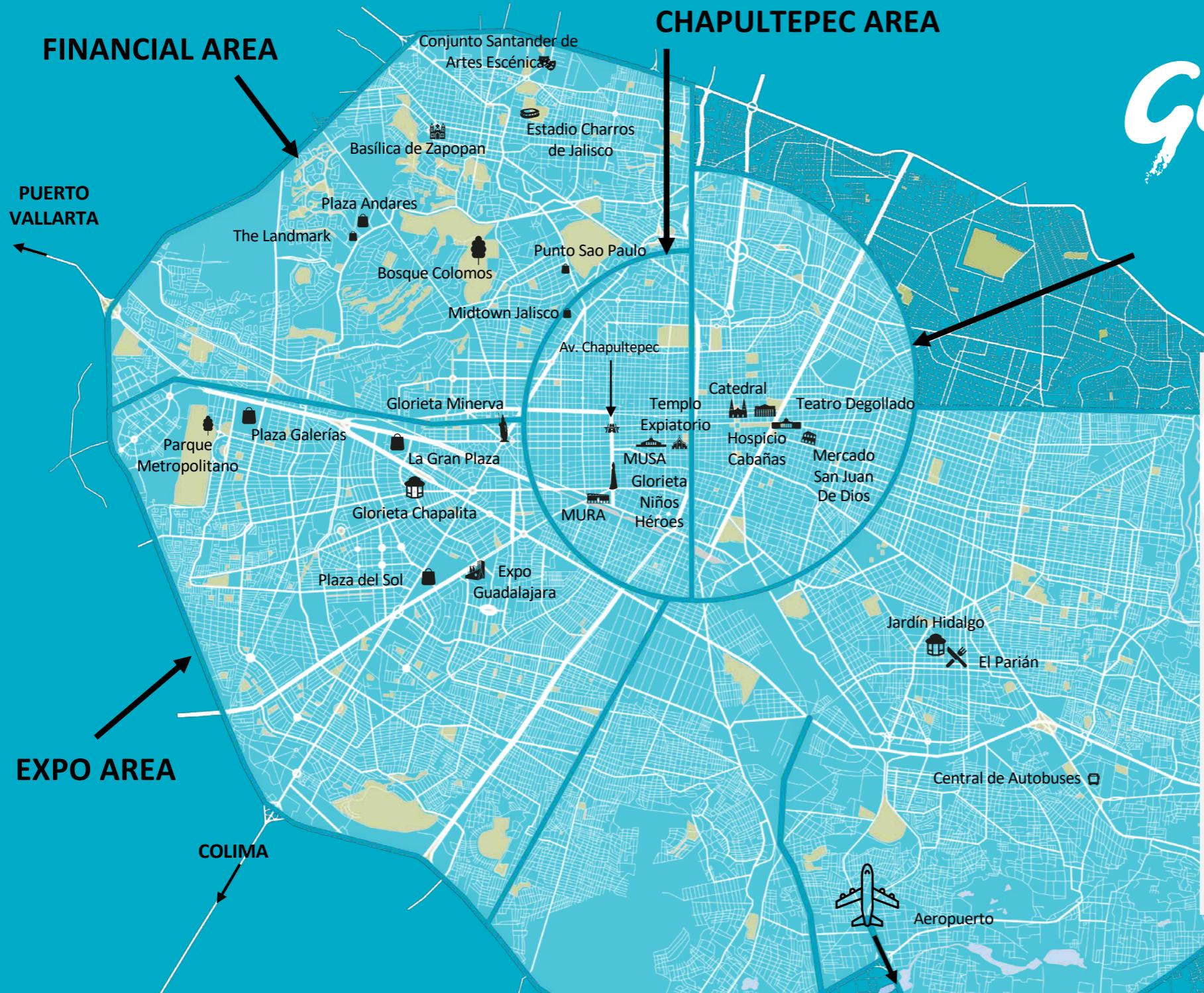
The background features a grayscale map of the world with diagonal hatching. Overlaid on the map are four orange location pins with city names: Kansas, Guadalajara, Casablanca, Trento, and Wuxi.

Trento

Casablanca

Wuxi

Guadalajara



HISTORIC DOWNTOWN AREA

Guadalajara

MiBici

2 925 ICONIC + **275** FIT en 2021

305 estaciones solares

6º aniversario
5ª expansión

92,000 usuarios de MiBici

113 km de nuevas ciclovías

15 millones de viajes a hoy

PBSC
SOLUTIONS URBAINES

GMA Mobility Facts: 2,743Km² of Surface / 1,622 hab per Km² / 8km average trip / 2,3 Million Private Cars/ more than 100k of bicycle lanes / Electric PT Starting in 2021

It's not about ideas -----

UDG Actions

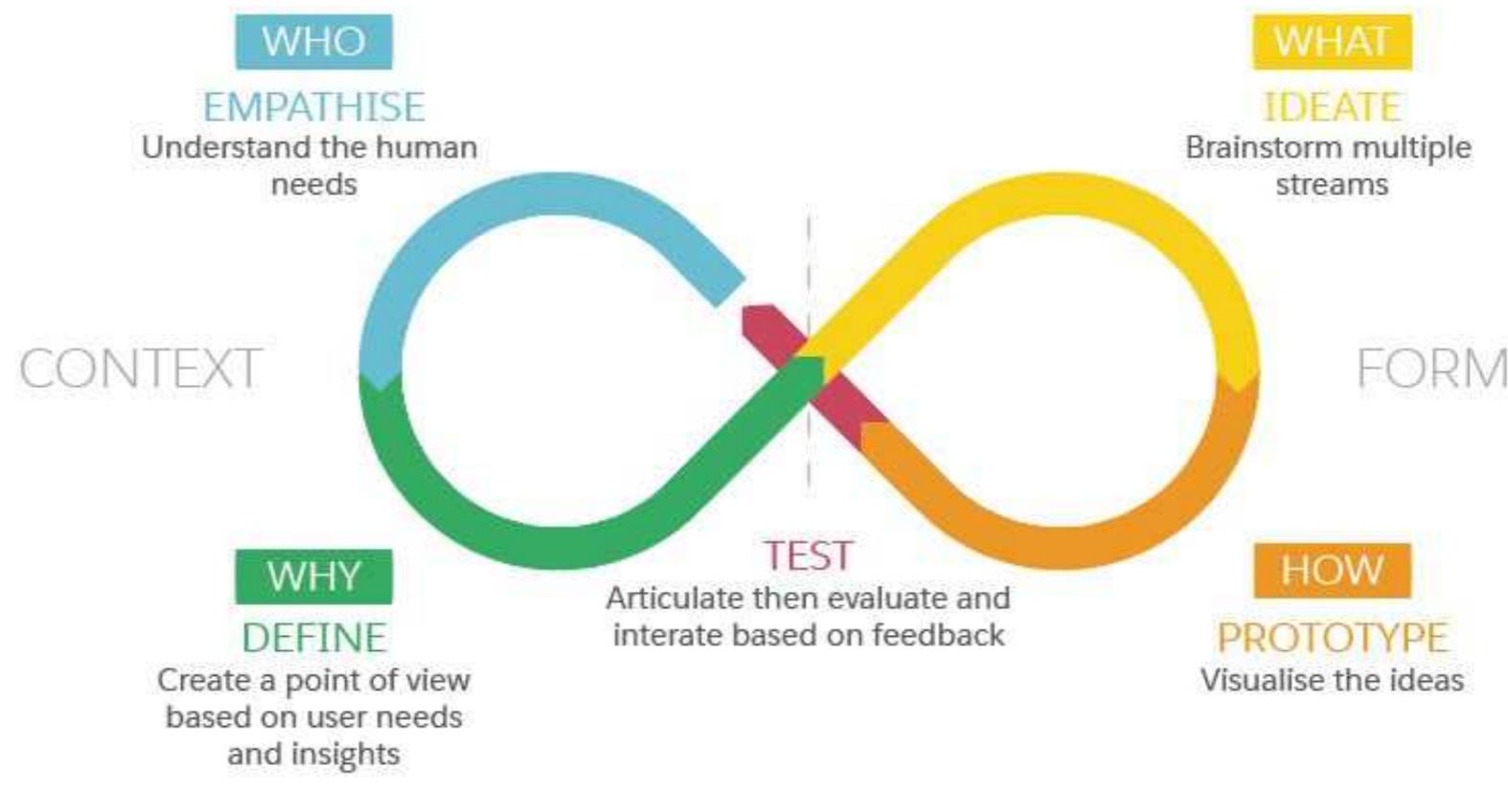
- UDG Smart Cities Innovation Center
- Smart Cities Living Lab for our Talent



its about making them happen!

"Hmmm Idea" cc licensed (BY NC SA) flickr photo by Xurxo Martínez/





PASSION LED US HERE

Design Thinking + Scrum Agile Methodology



Embrace Innovation to continuously adapt to change

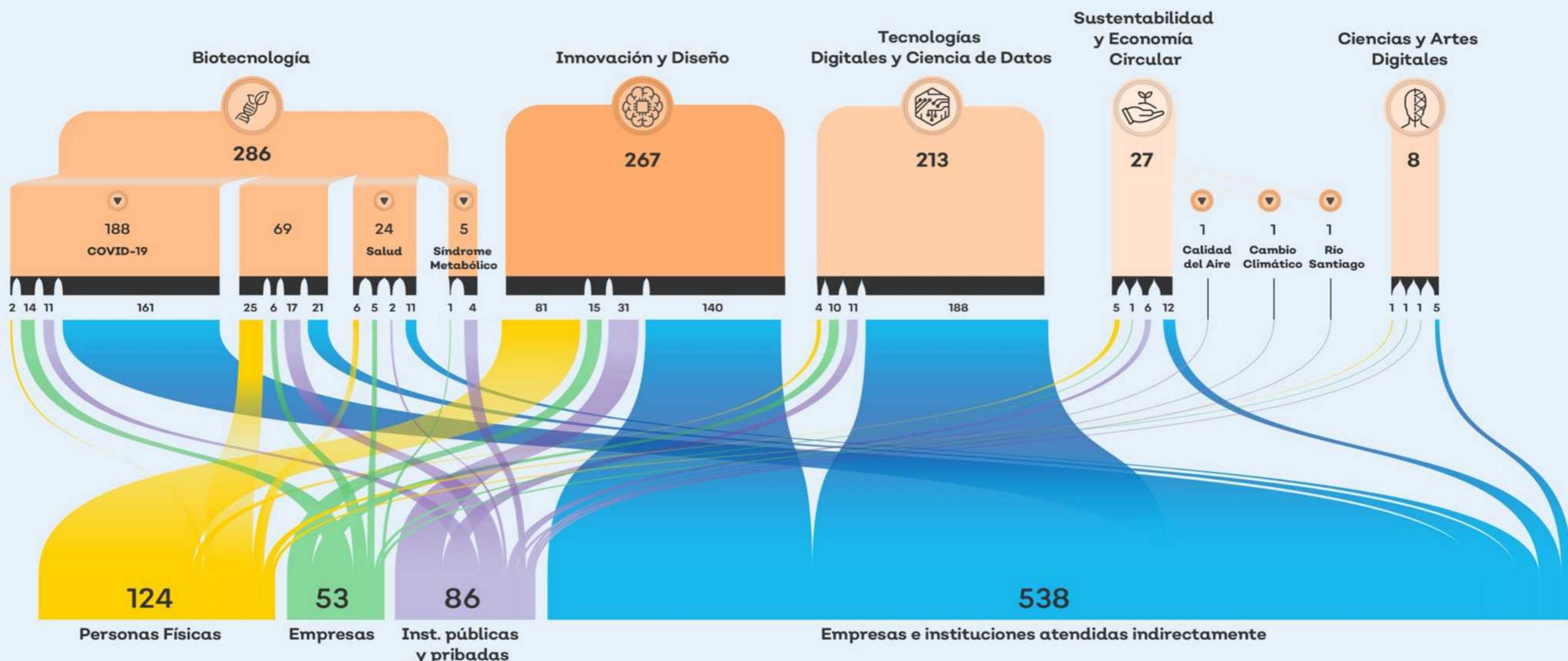
GDL relevant Smart City & IoT Projects

- Mobility
 - Line 3 of metro 16.2km connecting north to west
 - 2,446 public bicycles in 246 stations >500K trips/Month
 - Autonomous Vehicles labs & tests
- Security
 - 6.5K cameras in the metropolitan area connected to C5 center
 - 1.65K Panic buttons
 - 7.28K Sensors
 - Mobile apps under development
- Connectivity
 - High speed fiber optic
 - Internet of People
 - IoT Interoperability
- Energy
 - Projects for renewable with solar & gas reactors / Circular economy
- Water & Air
 - Cleaning rivers, saving water / Circular economy
- Waste management
 - New systems to collect / Circular economy
- Urban
 - 7 Micro walkable cities connected in the city with LEED buildings (2nd Place in Mexico)
- Social
 - Artificial Intelligence for Social Impact in all area investments.
 - Green areas preservation
- Education
 - Initiatives to connect Smart Campuses
 - Environmental Sciences Museum (Largest in LATAM)
- Healthcare...



Jalisco State Innovation Funds & Ecosystem Integration

¿Cuántas empresas e instituciones públicas y privadas, se han beneficiado (directa o indirectamente) en los HUB?



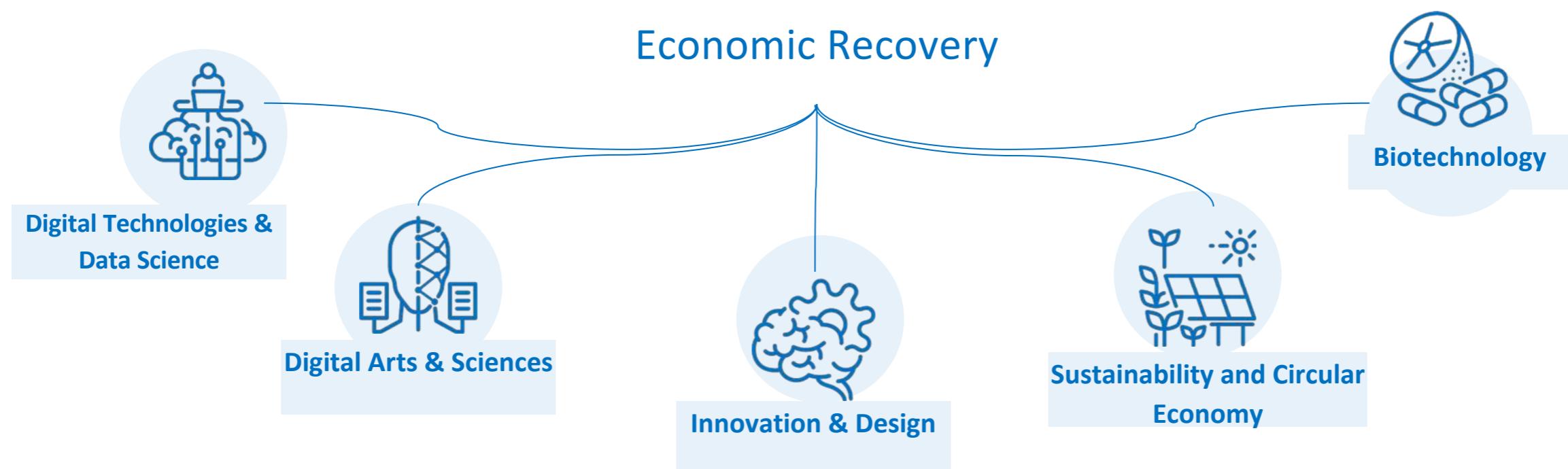
801

Empresas e instituciones públicas y privadas fueron beneficiadas

Source: <http://coecytjal.org.mx>
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Jalisco State Innovation Funds & Ecosystem Integration

Priorities COECYTJAL 2021



Strategy based on Innovation Hubs to integrate the Jalisco Ecosystem & Consortia's empowered

Source: <http://coecytjal.org.mx>
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I-HUBS as strategy for interoperability

- Consortia initiative for local innovation development
 - Integrates a: **Think Tank** + **Co-Labs** + **Technology Developers**
 - Capacities in: IT, IoT, IoP, Data Science, AI, Blockchain, Virtual Reality, UX...
 - Model of NASA on TRL level 5

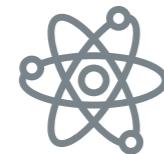
Consorcio IJALTI



Hewlett Packard Enterprise



OPEN INNOVATION GARAGE



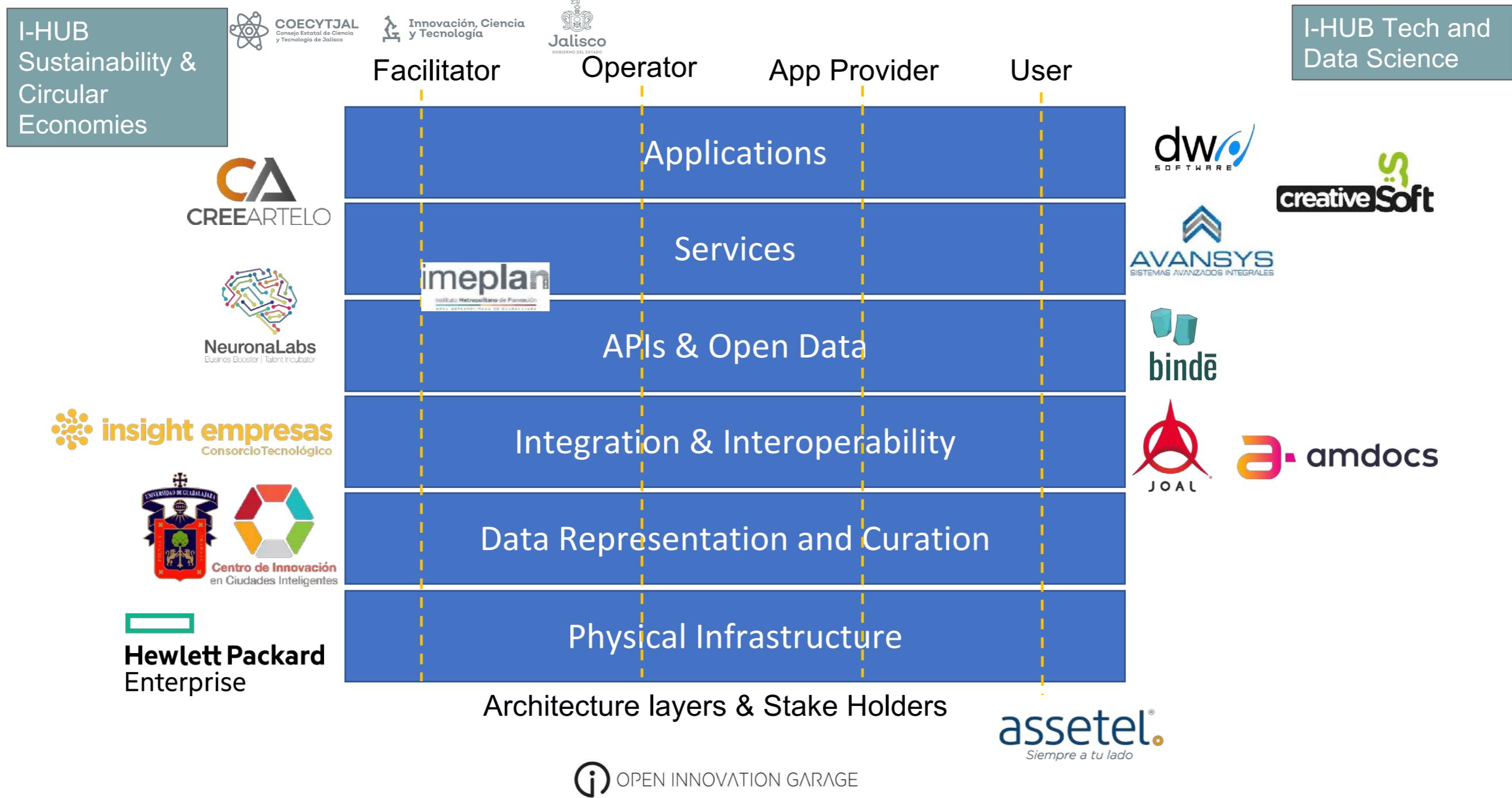
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Innovación, Ciencia
y Tecnología

Architecture Layers & Interoperability + Hub Collaboration

IJALTI



A photograph showing a group of hands from different people, all holding a single, continuous red object that spirals around itself, resembling a DNA helix or a stylized ribbon. The hands are positioned in various ways, some gripping the ends and others holding the middle sections. The background is dark, making the red object stand out.

Quadruple Helix Model

Government + Academia + Industry + Citizens



Thank you!

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IEEE IoT WF
13th July 2021