

# **Smart Cities Vertical**

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## **Tagline**

Sustainable urbanization is key to successful development. We focus on solutions that advance the smart technology of businesses and cities.

## **Vertical Description**

Our goal is to maintain a high quality of living and competitive advantage compared to international locations, while at the same time advancing logistics and smart technology solutions that increase the sustainability and resilience of local and global businesses and cities. Through their technologies and products, our startups solve specific innovation challenges defined by corporations and cities in Switzerland and beyond.

#### **Partners**

- Coop
- AXA
- City of Zurich
- Romande Energie
- IKEA Switzerland
- CSEM

## **Technologies**

- Artificial Intelligence (AI)
- Machine Learning (ML)
- Internet of Things (IoT)
- Robotics
- BIM and GIS
- Augmented Reality (AR) / Virtual Reality (VR) / Extended Reality (XR)
- 5G
- Amazon Web Services
- Microsoft Azure
- Data Visualization

- Google Cloud
- IBM Cloud
- Big Data and Data Analytics
- Sensors
- Location Intelligence
- Web3
- Conversational Interfaces (Voice, Chatbots etc.)
- Confidential Computing
- LoraWAN
- Quantum Computing



### **Collaboration Areas**

- Digital Twins / Data-Driven Initiatives
- Energy
- Mobility & Logistics
- Building and Living
- City Services
- Net Zero

## **Collaboration Opportunities**

#### A - Digital Twin and Data-Driven Initiatives

- A1 Digital twins for waste management.
- A4 Solutions that improve data models for adjusting automated indoor temperature management (heating and cooling).
- A3 Digital twins to trace products within different departments in retail.
- A5 New technologies for rapid recording of damage to buildings in the event of a major meteorological event (hail, storm etc.)

### **B** - Energy

- B1 Solutions to analyze and implement CO2 and energy-saving potentials in retail processes, retail spaces and production companies.
- B2 Applications and platforms to identify low-energy pricing for retail companies and beyond.
- B3 Solutions to reuse the energy output in production lines.
- B4 Solutions to manage congestion and flexibility in electricity grids with approaches
   / business models that are attractive for utilities in Switzerland.
- B5 Innovative approaches / business models to access and valorize the data from smart electricity meters in Switzerland.
- B6 Platforms to recruit and manage members to local energy communities.
- B7 Trading platforms to collect and manage energy efficiency certificates.
- B8 Environmentally friendly, with short- and long-term energy control and storage to ensure smooth consumption and prices.



### C - Mobility & Logistics

- C3 Digital services, IT solutions and platforms (incl. IoT, MaaS), or Al algorithms to improve mobility, parking and logistics challenges.
- C5 Solutions/technologies to improve mobility flow prediction.
- C6 Solutions/technologies to forecast the demand and supply in consumer goods production.
- C7 New technologies to make the logistics processes in distribution centers (picking/delivery) fully automated, more efficient, and user-friendly.
- C8 New solutions to reduce the environmental impact of commuting and business trips.
- C9 Mobility solutions (also for remote areas) and ways to encourage retail customers to travel more sustainably.
- C10 Increase of transportation and road safety as well as efficiency based on data from passenger crowd management and vehicle telematics.

#### **D** - City Services

• D1 Digitalisation of city services for citizens (e.g., blended counseling, conversational interfaces) and/or for employees.

### E - Building & Living

- E1 Sustainable ways of (re-)designing or simulating the life-cycle of new buildings and infrastructure (VR, AI etc) with easy usage and application.
- E4 Ways to encourage a more flexible usage of living spaces e.g. transferring it from older to younger people.
- E5 Solutions to reuse existing buildings and flexibilize the usage of public or commercial buildings.
- E6 Ideas to increase and encourage biodiversity in construction and the built environment.
- E7 Ways to reduce heat and overcome urban heat islands in cities.

#### F - Net Zero

F1 Ways to "mainstream" and efficiently communicate the available circular offers:
 e.g. reuse, reselling and upcycling of objects and goods to citizens (citizen
 engagement) and employees (comparability, demand-based service procurement,
 etc.).



- F3 Green IT services and solutions to better assess, measure, and achieve CO2 reductions (especially in data centers, workplaces, IT infrastructure).
- F4 New ideas and technologies for disposal and recycling processes in logistics and retail.
- F5 Solutions for cost-effective infrastructure to deal with return goods.
- F6 Ways to support and increase the circular economy in the construction industry in Switzerland, to encourage renovations and the reuse of construction materials.
- F7 Solutions to optimize deliveries in cities and reduce congestion and emissions (e.g. data sharing, book unloading, parking in advance etc.).



# **Overview of Collaboration Opportunities 2024 - Smart Cities**

A - Digital Twins and Data-Driven Initiatives	B - Energy	C - Mobility & Logistics
<ul> <li>A1 Digital twins for waste management.</li> <li>A4 Solutions that improve data models for adjusting automated indoor temperature management (heating and cooling).</li> <li>A3 Digital twins to trace products within different departments in retail.</li> <li>A5 New technologies for rapid recording of damage to buildings in the event of a major meteorological event (hail, storm etc.)</li> </ul>	<ul> <li>B1 Solutions to analyze and implement CO2 and energy-saving potentials in retail processes, retail spaces and production companies.</li> <li>B2 Applications and platforms to identify low-energy pricing for retail companies and beyond.</li> <li>B3 Solutions to reuse the energy output in production lines.</li> <li>B4 Solutions to manage congestion and flexibility in electricity grids with approaches / business models that are attractive for utilities in Switzerland.</li> <li>B5 Innovative approaches / business models to access and valorize the data from smart electricity meters in Switzerland.</li> <li>B6 Platforms to recruit and manage members to local energy communities.</li> <li>B7 Trading platforms to collect and manage energy efficiency certificates.</li> <li>B8 Environmentally friendly, with short- and long-term energy control and storage to ensure smooth consumption and prices.</li> </ul>	<ul> <li>C3 Digital services, IT solutions and platforms (incl. loT, MaaS), or Al algorithms to improve mobility, parking and logistics challenges.</li> <li>C5 Solutions/technologies to improve mobility flow prediction.</li> <li>C6 Solutions/technologies to forecast the demand and supply in consumer goods production.</li> <li>C7 New technologies to make the logistics processes in distribution centers (picking/delivery) fully automated, more efficient, and user-friendly.</li> <li>C8 New solutions to reduce the environmental impact of commuting and business trips.</li> <li>C9 Mobility solutions (also for remote areas) and ways to encourage retail customers to travel more sustainably.</li> <li>C10 Increase of transportation and road safety as well as efficiency based on data from passenger crowd management and vehicle telematics.</li> </ul>



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