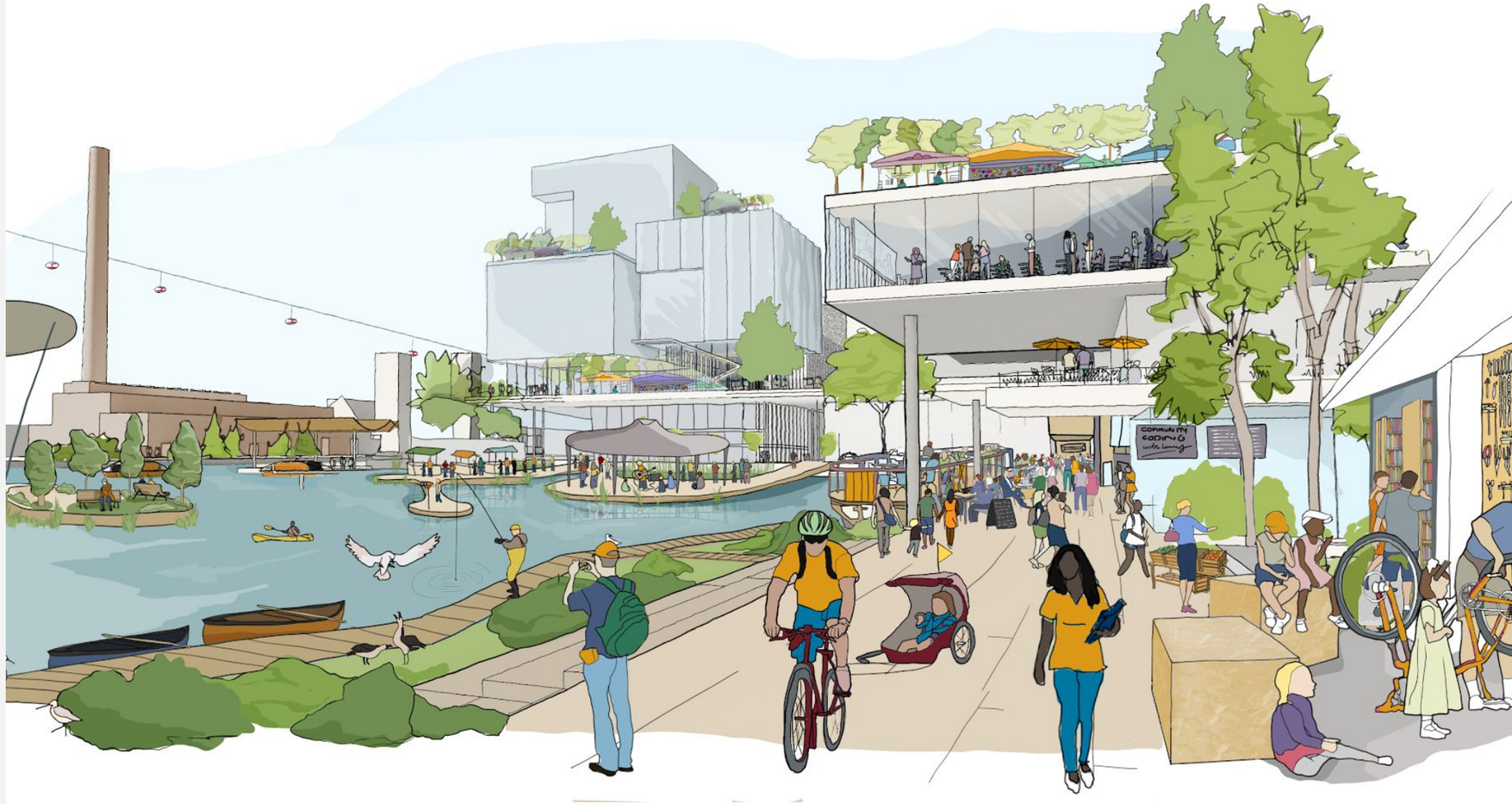
Sidewalk Toronto
Responsible Data Use

Presentation: Digital Strategy Advisory Panel - June 7, 2018

A **PUBLIC REALM** that serves as the city's living room

Some possible data types:

- Which trash cans need to be emptied?
- Are there any potholes?
- Are there any tree limbs down after a storm?
- How many people visit the park?
- Hyperlocal weather
- Sound levels
  "I'm looking for somewhere quiet and sunny right now to read a book"



A **MOBILITY** system that is more convenient than the private automobile

Some possible data types:

- Location of streetcars
- Current availability of curb space
- Volume of pedestrians
- Volume of cyclists
- Volume of vehicles
- Real-time alerts to autonomous vehicles of pedestrians and cyclists around the corner

A new standard of **SUSTAINABILITY**

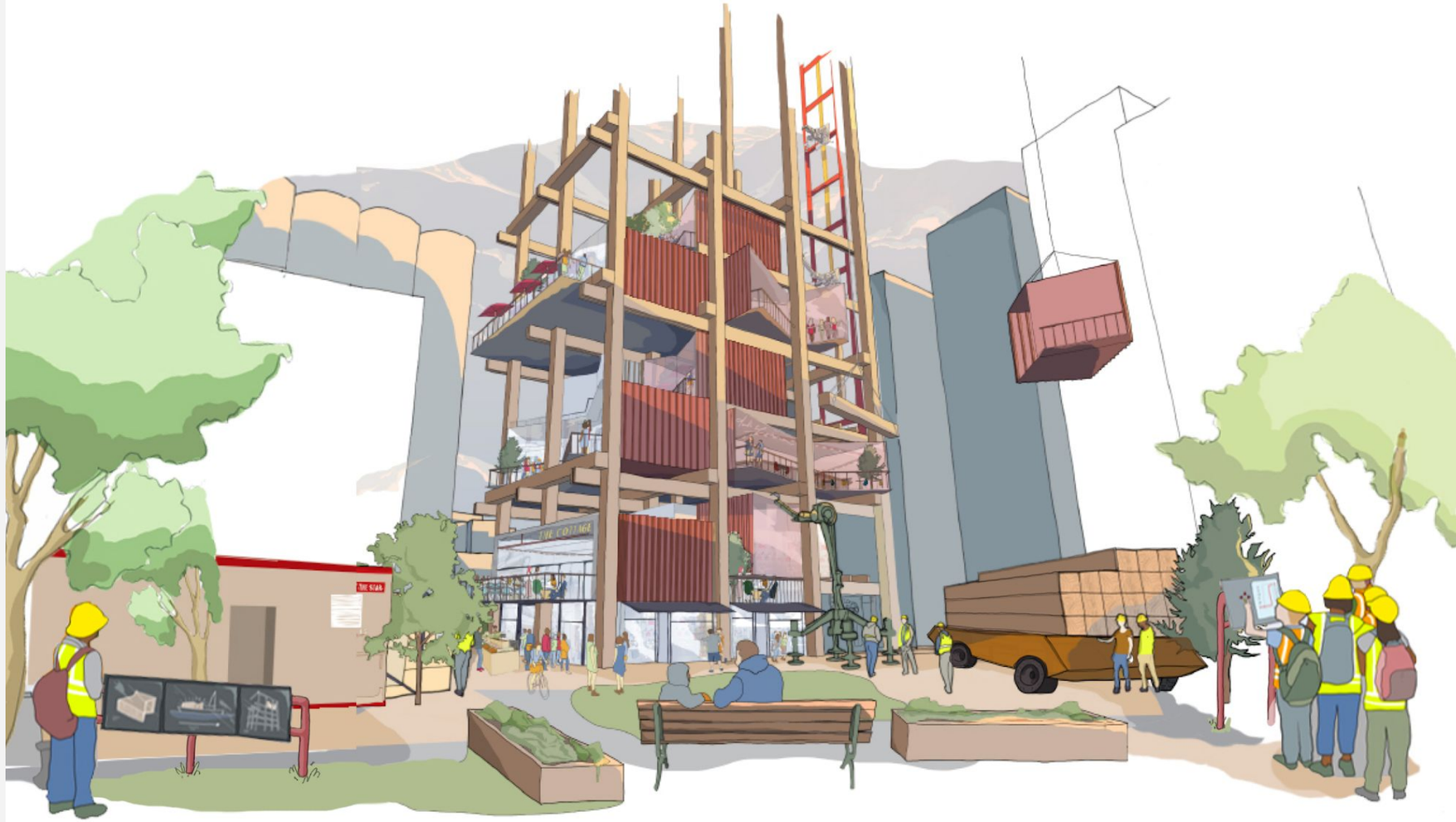
Some possible data types:

- Water quality
- Air Quality
- Wildlife census to monitor naturalization of Don River
- Flow rates through stormwater, water and sewer pipes
- Waste volume in public trash cans
- Energy use

BUILT ENVIRONMENT
that is more usable, efficient and affordable

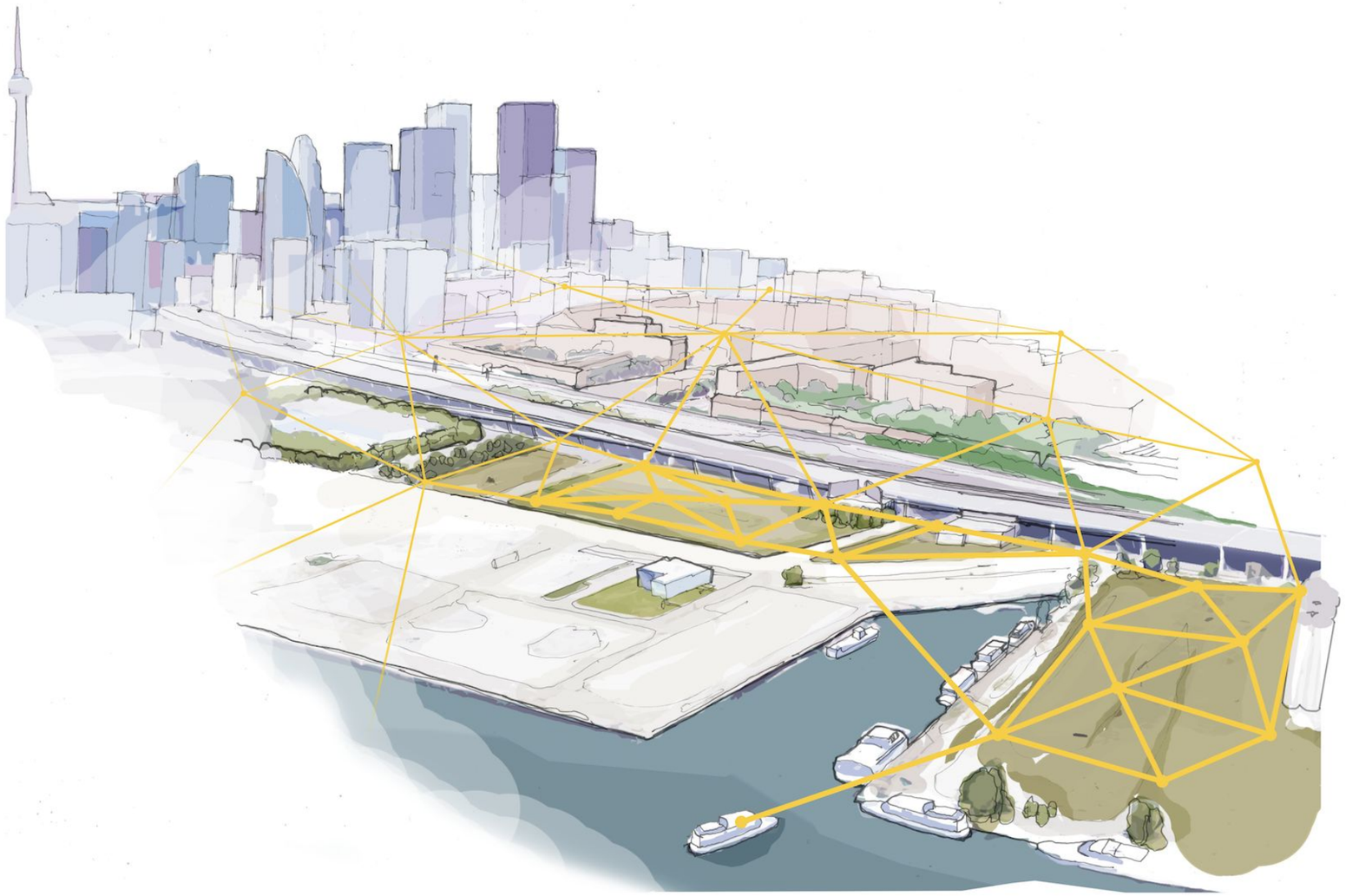
Some possible data types:

- Indoor air quality
- Smoke sensors
- Vibration sensors
- Water leak detection



A **DIGITAL PLATFORM** that that enables innovation, and enforces openness, privacy and security

- Geographical information about the road network
- Three-dimensional models of building structures
- Locations of fire hydrants



Sidewalk Toronto
Responsible Data Use Policy Framework

Responsible Data Use encompasses four main areas:

- **Privacy** is about individual control over how personal information is collected, used, and shared.
- **Data stewardship** is about the use, control, ownership, and storage of data.
- **Access to data** deals with questions of how broadly and on what terms data is made available.
- **Data security** is about protecting data and minimizing the potential for breaches.

Sidewalk Toronto has decided to apply Responsible Data Use principles to ***all data*** collected in the neighbourhood, not just personal information that is identifiable.

Sidewalk Toronto
Responsible Data Use Principles

- **Beneficial purpose.** Data collection and use should be purposeful, intentional, and tightly connected to the ultimate benefit that we are striving to achieve. We will not collect data for the sake of having data.
- **Transparent.** We will be transparent about what we are collecting and why, clearly explain the intended benefit of that data use, and communicate any changes.
- **Open.** Whenever possible and without compromising personal privacy, we will seek to make the data collected as part of Sidewalk Toronto open and accessible, with the goal to enable innovation and entrepreneurship.
- **Proactive engagement.** We will proactively engage the community on data use and will continue to listen and learn from the community as we grow and develop.
- **Community trust.** We want the community to trust that our projects, products, and services are developed with its needs in mind. Having good data-handling practices and minimizing breaches of trust is therefore integral to our development process.
- **People first.** Our people-first approach to responsible data use will apply Canadian values of diversity, inclusion, and privacy as a fundamental human right.

Privacy

- Privacy is about individuals' control over their personal information.
- In the Responsible Data Use Policy Framework, we made a number of privacy commitments that build on the strong protections already enshrined in Canadian law.
  - Two commitments that go above the current requirements include:
    - Privacy by Design, for example: data that includes personal information will be "de-identified" by default.
    - We will publish summaries of the privacy implications of key initiatives in advance.
- We continue to explore several questions related to privacy, including:
  - What does "meaningful consent" look like with data collected in the public realm?
  - Are there some types of collection and uses of personal information that should never be considered?
  - How can we plan to improve digital literacy so all stakeholders better understand the benefits and their choices?

Data Stewardship

- Data Stewardship is about use, control, ownership, and storage of information.
  - It includes considerations such as governance (who oversees decisions related to data use), data residency (where data is stored), and usage terms (how data is licensed or shared).
- Sidewalk Toronto is currently conducting research to inform the next phase of public consultation. Research areas include:
  - Current approaches to data ownership and use in the urban context
  - Discussions taking place in Toronto, Canada, and Internationally around data residency
  - Innovative models for governing data, such as a data trust, and/or a data use review board

Access to Data

- Sidewalk Toronto envisions a digital platform governed by open standards, providing well-designed, well-documented, and well-supported APIs to third-party developers.
- Open access encourages participation, innovation, learning, and improvements in all aspects of public life while also discouraging lock-in around specific products or companies (including our own).
- We are meeting with stakeholders at the City of Toronto and throughout the tech sector to collaborate around answers to the following questions and others:
    - What processes should be used to decide what data is made public, and how can these processes address privacy and public safety concerns?
    - How could an open data protocol for Sidewalk Toronto complement the city's existing Open Data Catalogue?
    - How do we encourage a vibrant startup community while making sure it uses data in ways that benefit neighbourhoods?

Data Security

- Data Security is paramount, not only for Sidewalk Toronto but for the partners developing solutions on this platform.
- Sidewalk Toronto will work with best-in-class security solutions and partners to protect data that has been collected, and we will also require anyone else who collects data in Sidewalk Toronto to meet the same high standard of security.
- We will welcome third-party audits of our security and de-identification protocols.
- We continue to explore questions such as:
    - What are strategies for achieving both open digital infrastructure and best-in-class security?
    - How do we make our systems easily auditable and transparent?
    - How do we enforce a rigorous security policy without creating a barrier to entry for startups?
    - What type of transparency should exist around security threats or breaches?