Building the City of Vancouver's Open Data GIS Platform

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Presentation Outline:

1. Why Open Data
2. Government as a Platform
3. Platform Building Challenges
4. Strategy and Platform Building
5. Summary

1. Why Open Data

What Are Local Government Roles?:

- transparency and accountability
  - data collected: legislative, administrative, financial, etc.

- public service provision
  - data collected: GIS data, service (311) & facilities data, etc.

- public safety
  - data collected: crime data, fire/rescue response

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1. Why Open Data

Open Data Objectives & Benefits:

- encourages citizen engagement and participation

- promotes transparency and accountability

- leads to economic development and innovation (e.g. in service provision)

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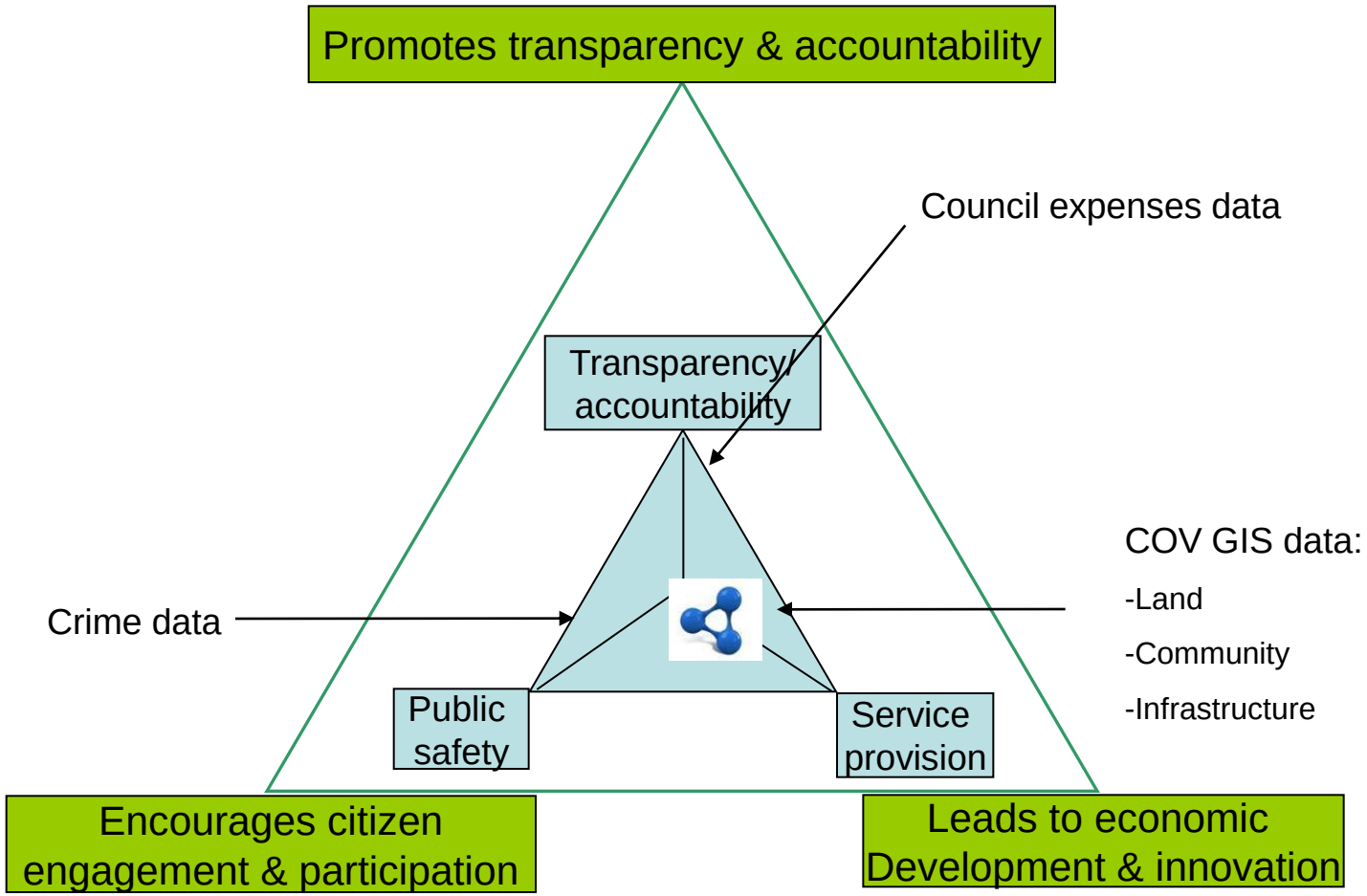
1. Why Open Data

Open Data Objectives Focus on Local Government Roles



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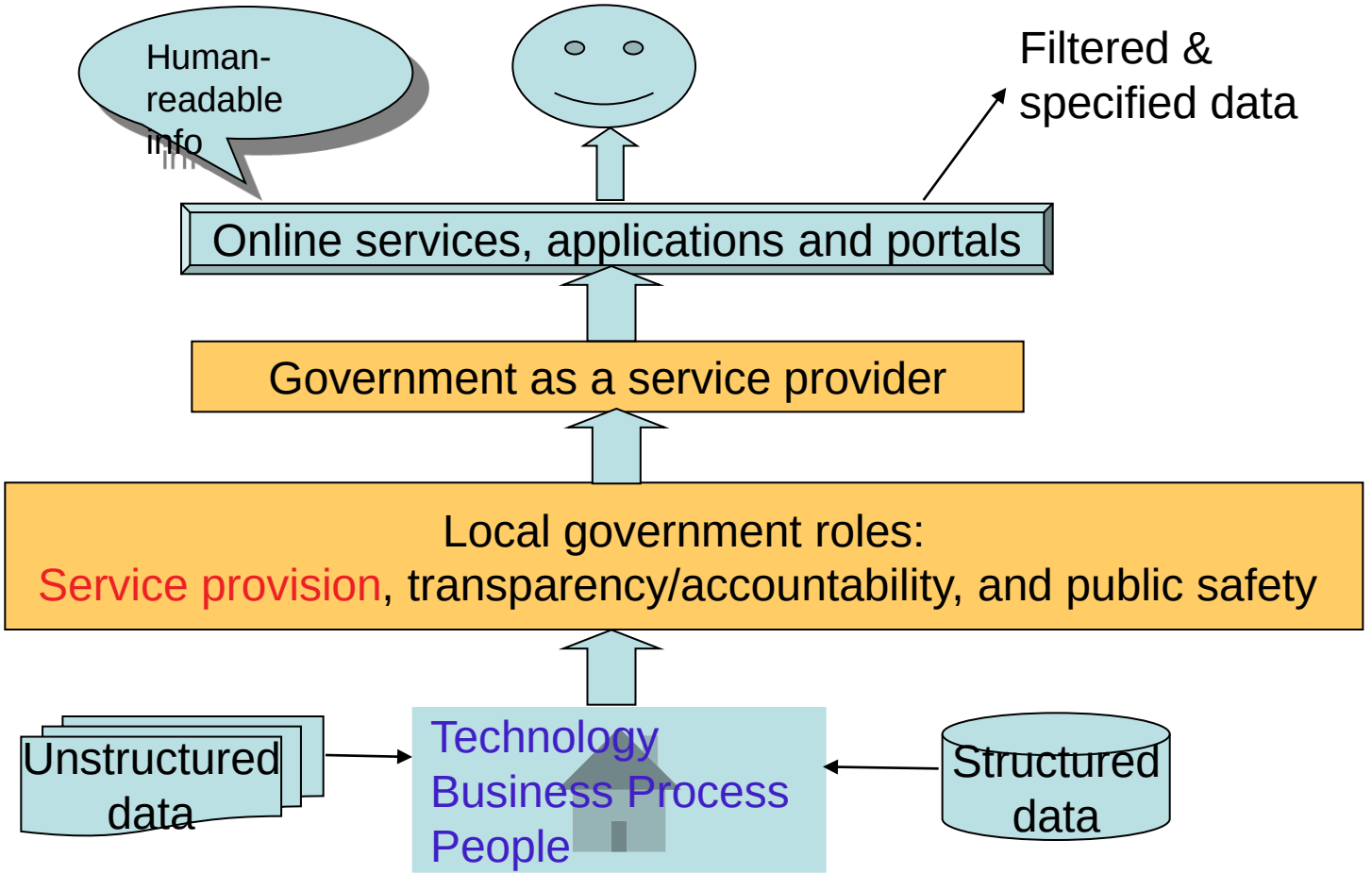
2. Government as a Platform

Where we are now?
- Government as a Service Provider:



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2. Government as a Platform

Why government as a platform?

- government as a service provider-vending machine is limited: one-way and passive communication

- government as a platform (Tim O'Really) is to enable the public and public servants to participate, collaborate and innovate using open data

- focuses on platform that opens up government data for others to use (Robinson & Yu), not on websites

- platform consists of hard infrastructure (technology & data) and more importantly soft infrastructure (people & processes)

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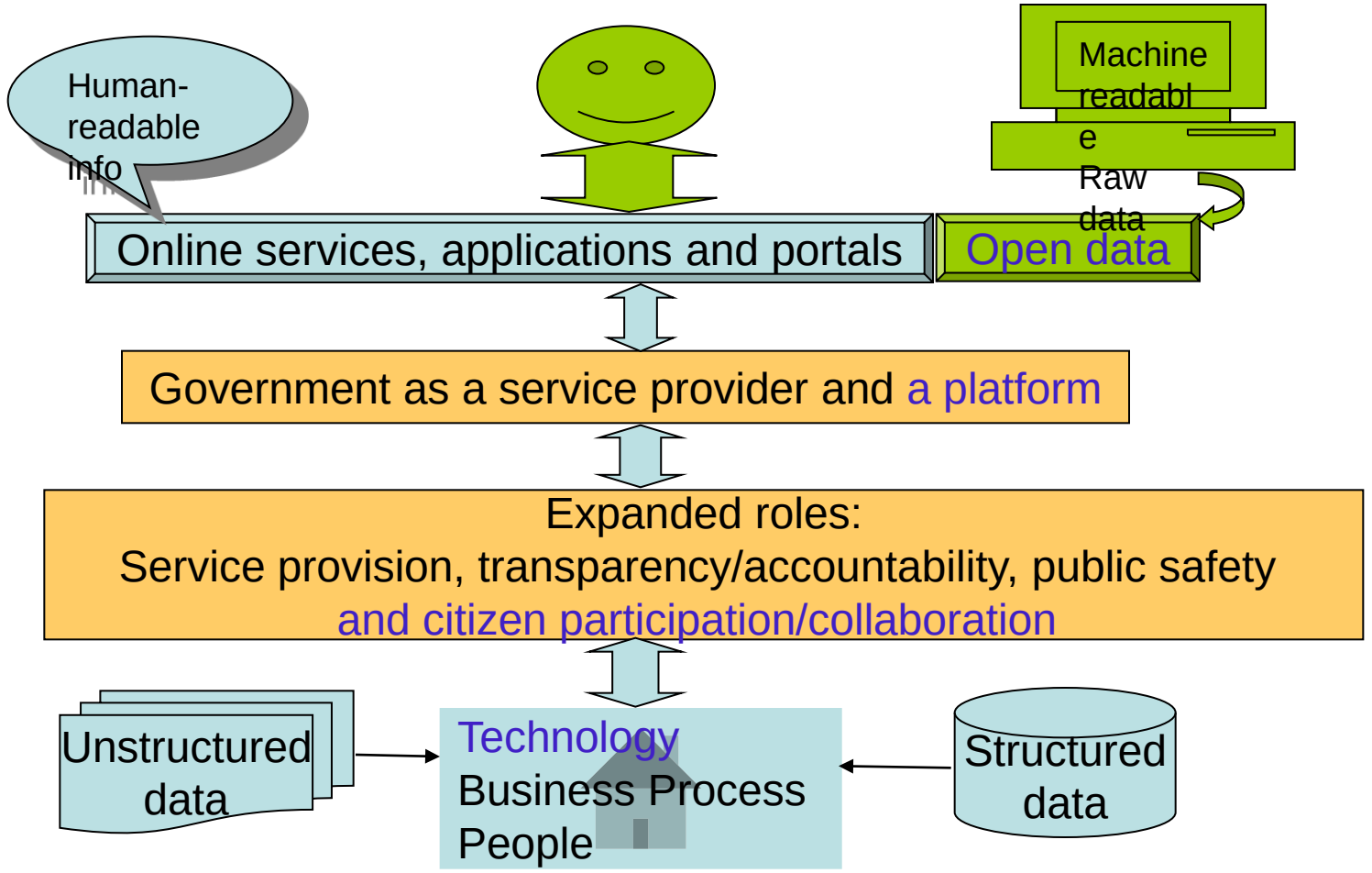
2. Government as a Platform

What we are building for?
- Government As a Platform (Tim O'Reilly):



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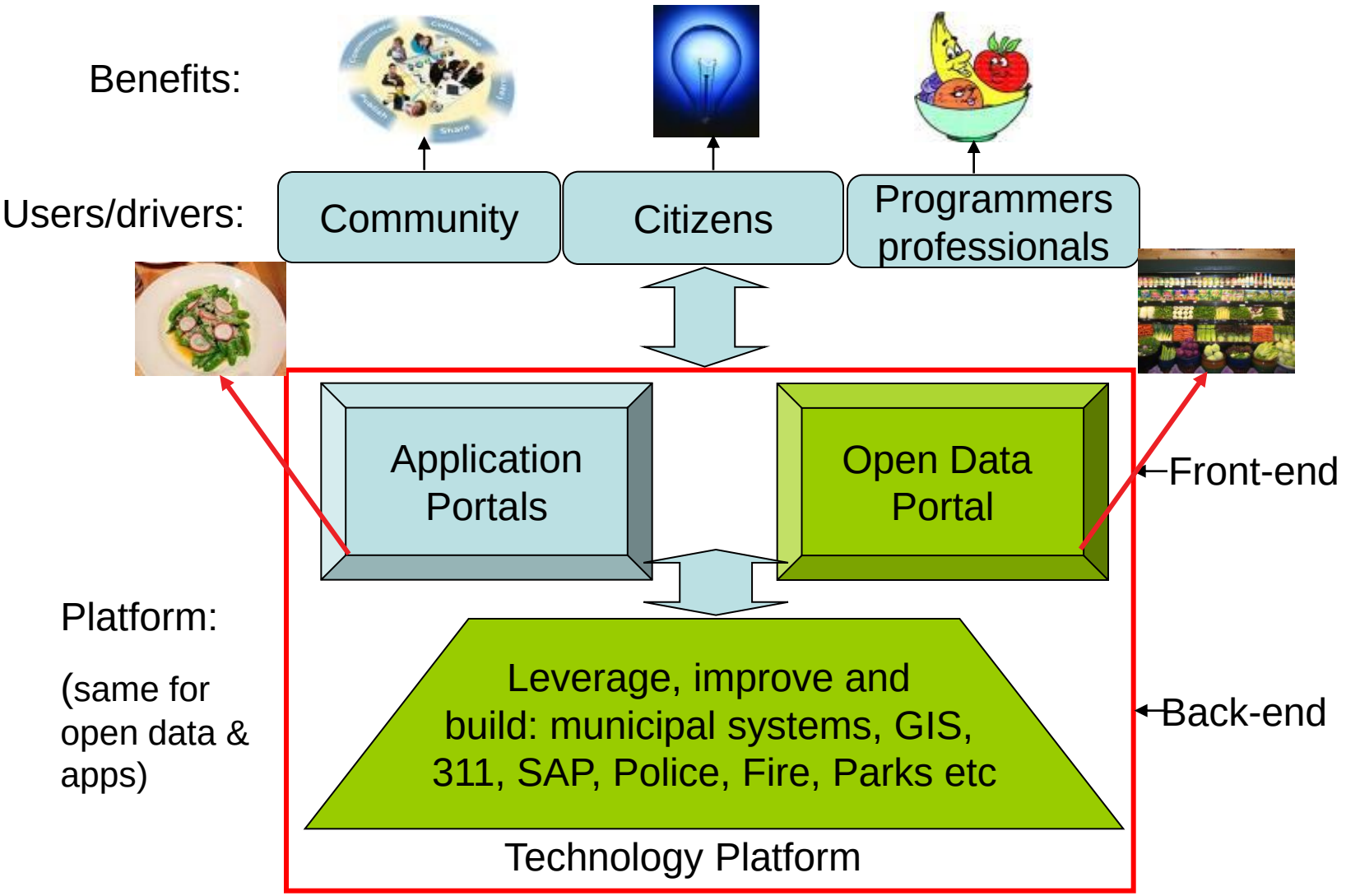
2. Government as a Platform



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3. Open Data Platform Building Challenges

What are the major barriers:

Soft Infrastructure: people and processes

- legal: license, FOIP
- cultural: closed government culture

Hard Infrastructure: technology and data

- technological: platform readiness and openness for publishing raw data
- data quality issues

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3. Open Data Platform Building Challenges

Identify who are the users and their requirements?

- programmers/developers

- professionals (business and community)

- interested citizens and general public

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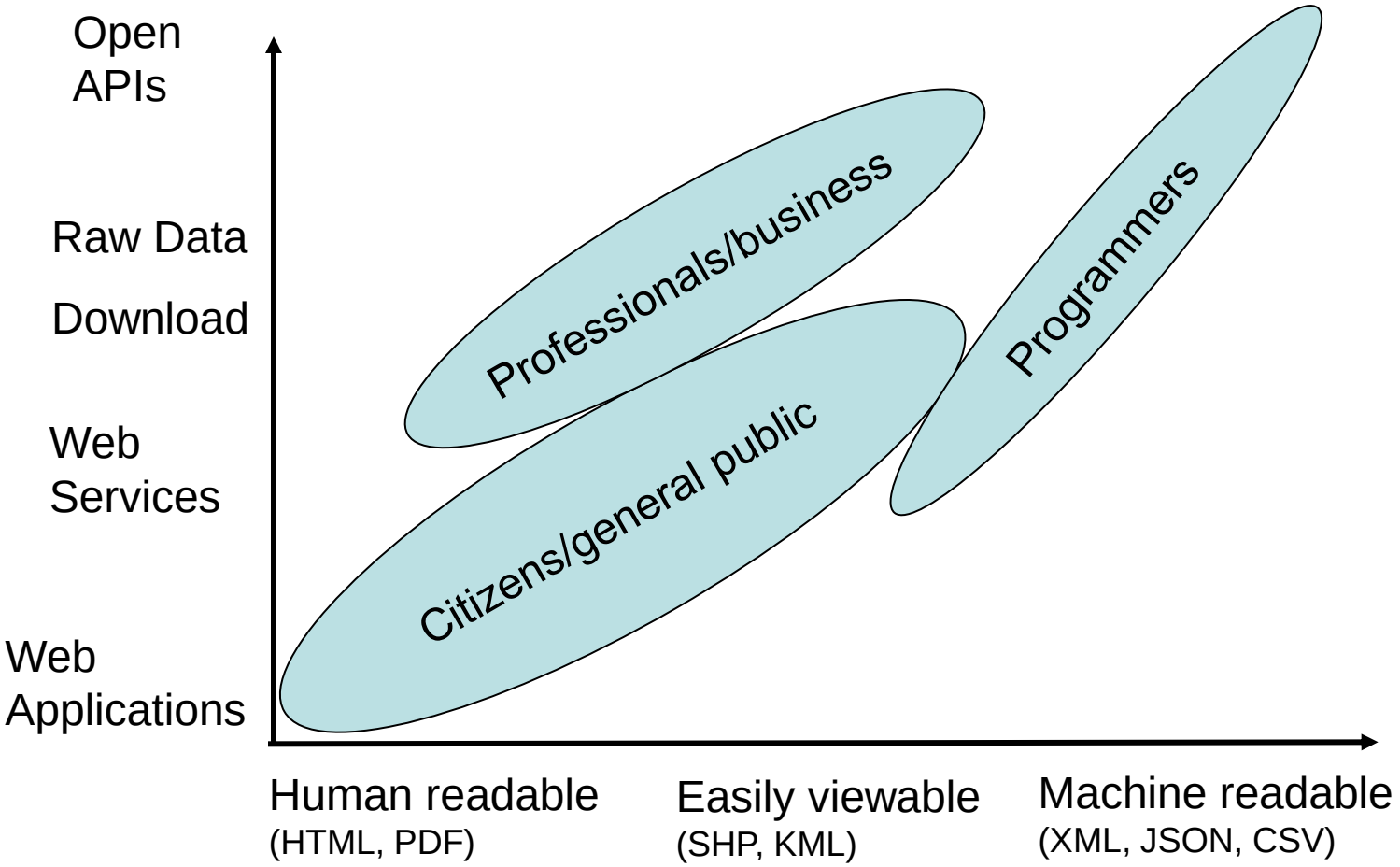
3. Open Data Platform Building Challenges



User Requirements in 2 dimensions (data formats & open accessibility)

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4. Strategy and Platform Building

4.1 Strategy: quick releases for downloads on ready data sets in open formats, & on simple functionality

- data sets: Public VanMap data (150 layers, 130 datasets)
- formats: csv, Excel, KML, SHP, DWG, GeoRSS, XML and JSON; ECW/MrSid for imagery.
- downloads: via FTP file server, not yet complex APIs

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4. Strategy and Platform Building

4.2 COV Open Data Technology Platform

- front-end web portal: catalogue, metadata,navigation,map visualization and some collaborative features

- back-end systems/processes: ETL FME for GIS data extraction & update automation (weekly updated mostly)

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Current Platform > front-end portal:

COV open data portal

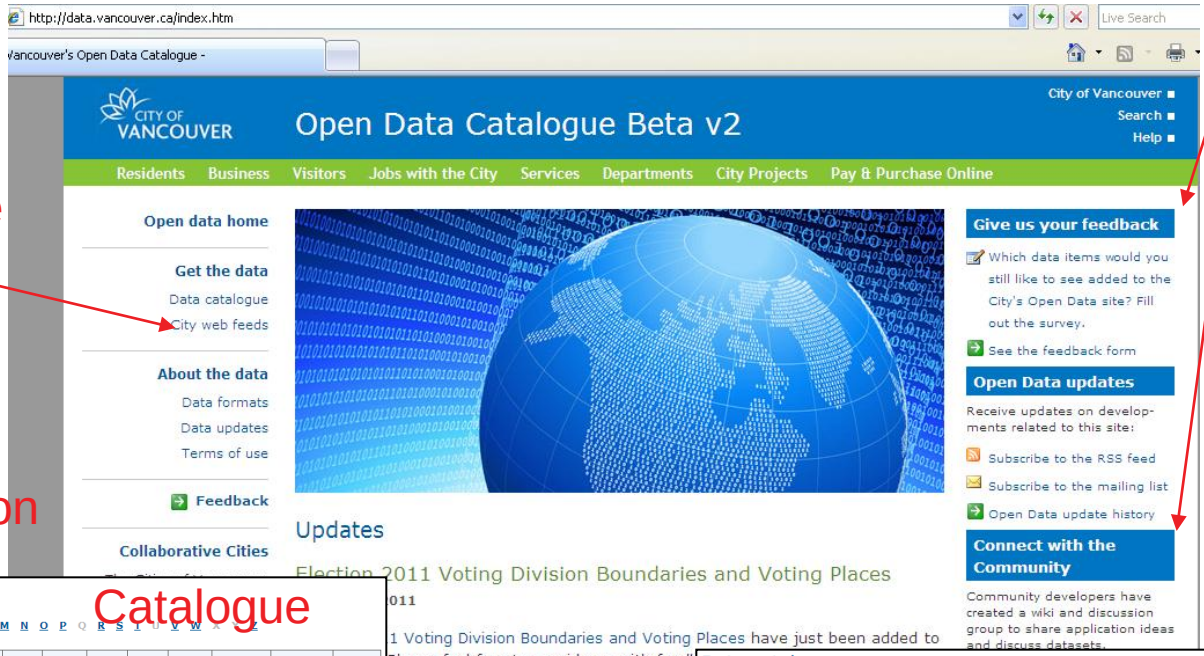
collaboration

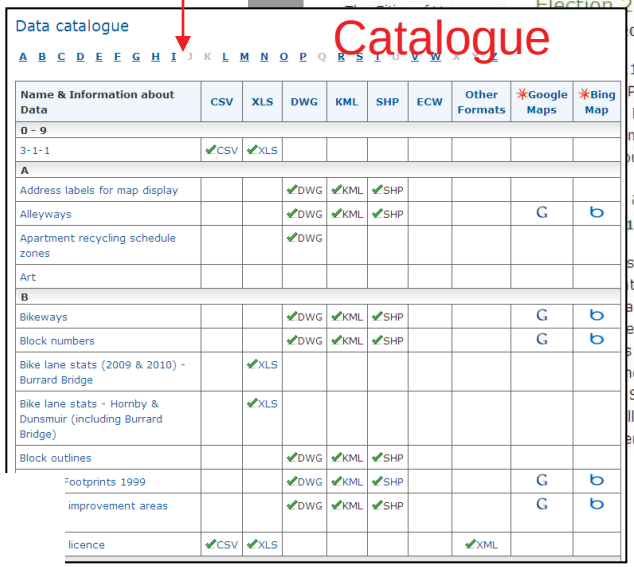
Feed/live data

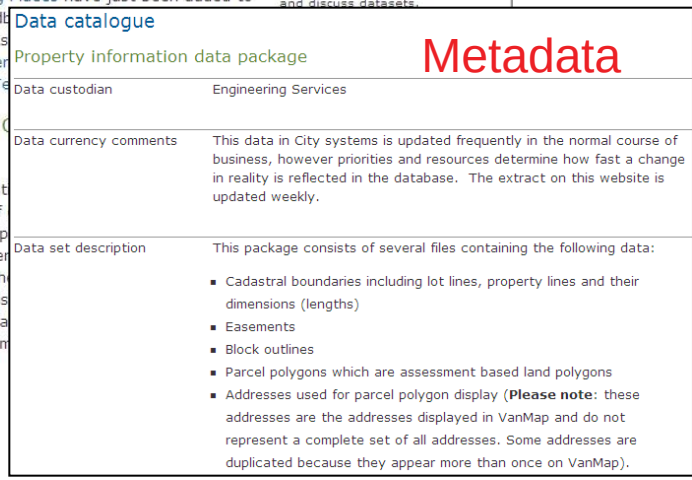
navigation

Catalogue

Metadata







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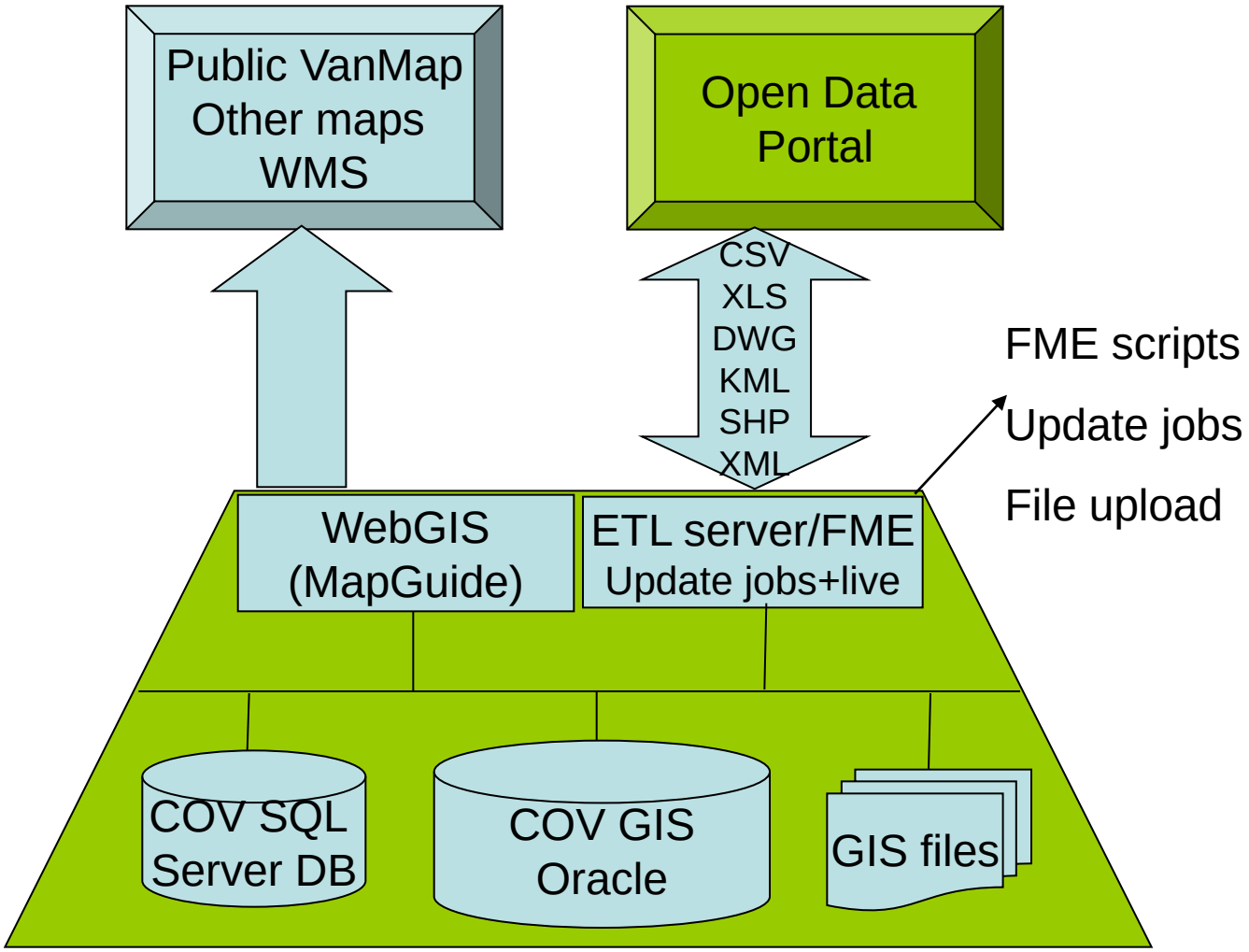
Current (GIS) Platform > back-end system:

Same GIS platform for open GIS data and Public VanMap



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4.3 Technical Challenges

Most existing enterprise systems not designed for open data:

- data schema not suitable/meaningful for open data

- back-end systems not interoperable, data integration difficult

- back-end systems not readily accessible for data publishing

- front-end portal lack of functions such as back-end systems integration automation, metadata interfaces/tool, searching, etc.

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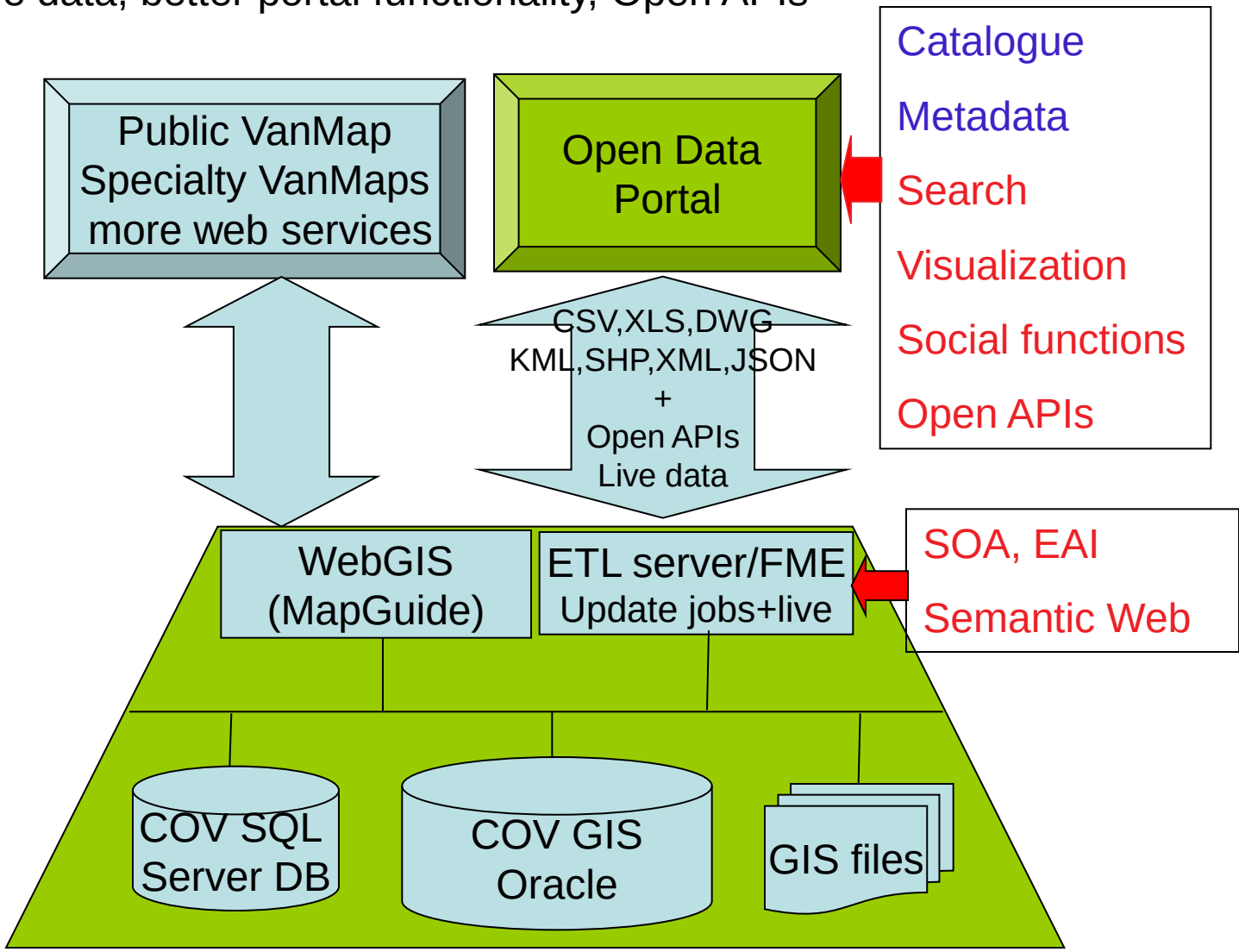
4.4 Future Technology Platform

More data, better portal functionality, Open APIs



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5. Summary

- Open Data is about building a platform empowering public servants and the public to collaborate and innovate for fulfilling government roles

- COV quick wins started with publishing Public VanMap GIS raw data in open formats for three groups of users (not just programmers)
- Our initial success built on the platform of a simple and easy-to-use front-end portal and a flexible/open backend with update automation

- Our future work will focus on a more open and participatory platform readily exposing government data & information for public collaboration and innovation

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Questions?

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