



Natural Resources
Canada

Ressources naturelles
Canada



GeoCA: Presenting Canada's geospatial information

Emergency Management Geomatics Community of Practice – August 22, 2024

Canada

Agenda

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Who we are

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Data Dissemination via GCGeo

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GEO.ca

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Opportunities/Scope & Capacity





GeoDiscovery Key Priorities



Disseminate Data & Content

Disseminate data and content in support of CCMEQ, NRCan and GC priorities.



Deliver Geomatics Products & Services

Deliver high-quality products and technology, such as the Basemap, the CCMEQ Dissemination Toolkit and GeoView.



Advance Communication & Engagement

Engage with stakeholders, partners and users. Deliver exceptional client and user support.

Vision

To provide world-leading geospatial information through an integrated, innovative and cohesive web presence for CCMEQ.



Mission

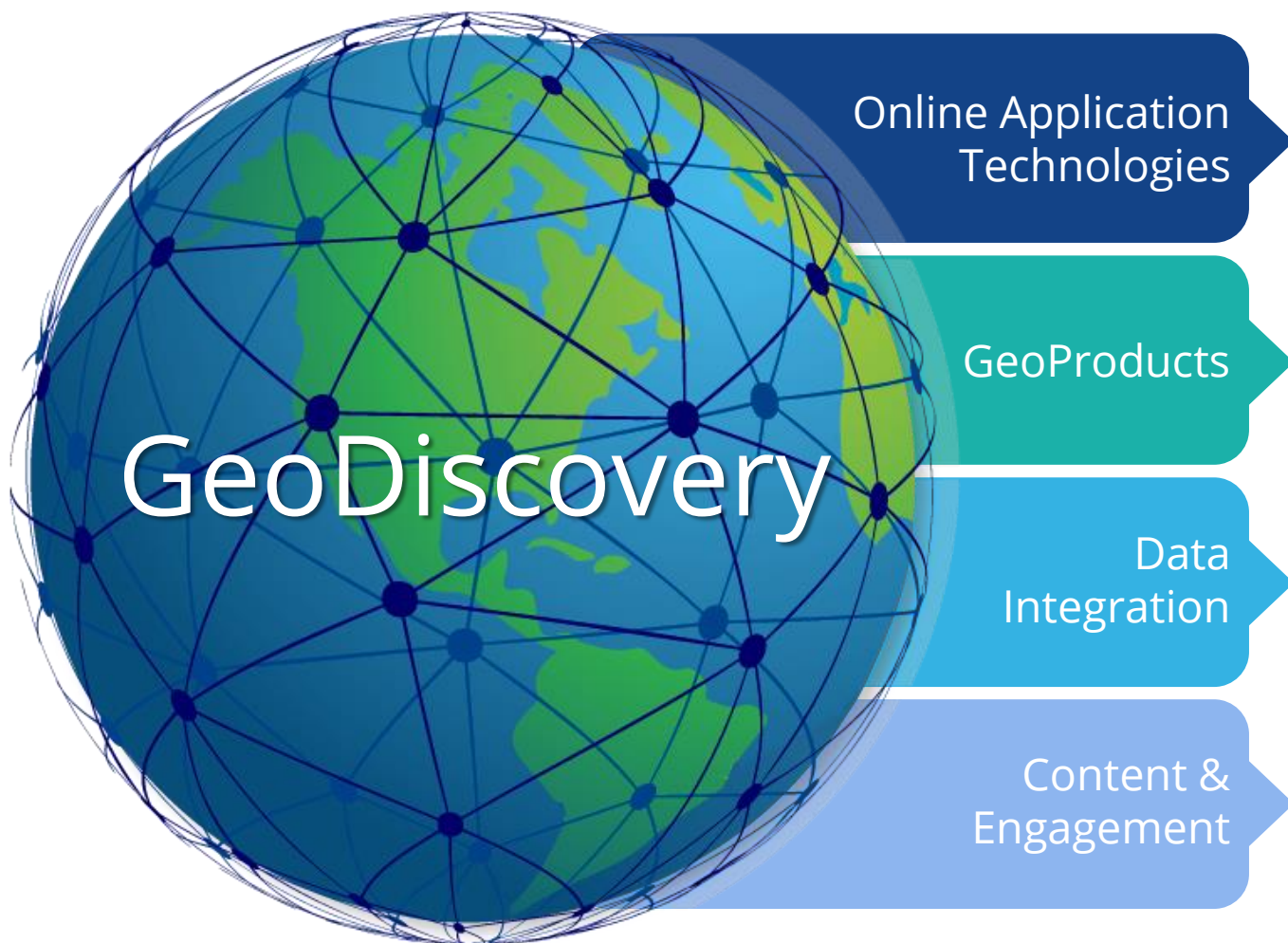
To enable CCMEQ's digital transformation by providing geospatial technology and products that promote discovery and analysis, and support decisions.



In 2022, the Federal Geospatial Platform division was reoriented to take on a new role for CCMEQ as our centre of expertise for data dissemination. Many of the FGP's foundational services remain: Depts and partners are still able to publish geospatial data using the FGP's contributor portal at gcgeo.gc.ca and the GCGeo catalogue & technologies continue to be leveraged by multiple sites including GEO.ca, Canada.ca (Open Maps) and the Open Science and Data Platform (OSDP).



Products & Services



- Viewer Technology (GeoView, Toporama)
- Catalogue (GeoCore, GeoNetwork)
- CCMEOWeb Presence & online platforms for dissemination (Internal – GCGeo; External - GEO.ca, Atlas of Canada, Canada.ca, OSDP)
- CCMEOWeb Tools (i.e., Similarity Engine, Semantic Search Engine, etc.)

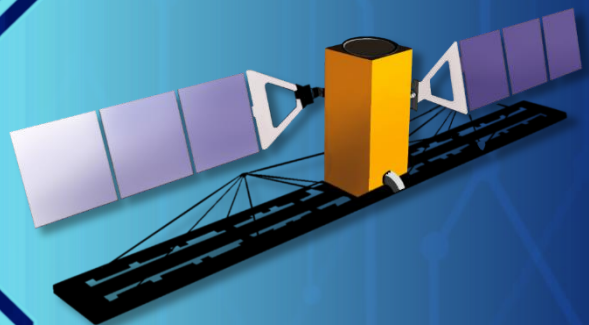
- Basemap of Canada
- On-demand custom value-added map products and services (i.e., static and interactive maps, dashboards, story maps, wall maps, etc.).
- On-demand natural hazard risk maps
- Custom content and map products for Atlas of Canada

- Data processing pipeline and data Integration IT infrastructure & services (i.e., near real-time data processes, GCGEO contributor metadata support, web service creation, etc.)
- F/P/T geospatial, non-geospatial and EO data onboarding
- CCMEOWeb dissemination applications (CDTK, CZS, DDR, Geolocator API, etc.)

- Web Presence and web content for online dissemination platforms (GEO.ca, Atlas of Canada, Canada.ca)
- Outreach, engagement, communications and client service to support adoption of CCMEOWeb dissemination platforms and tools

CCMEO Data Dissemination

Satellite Imagery



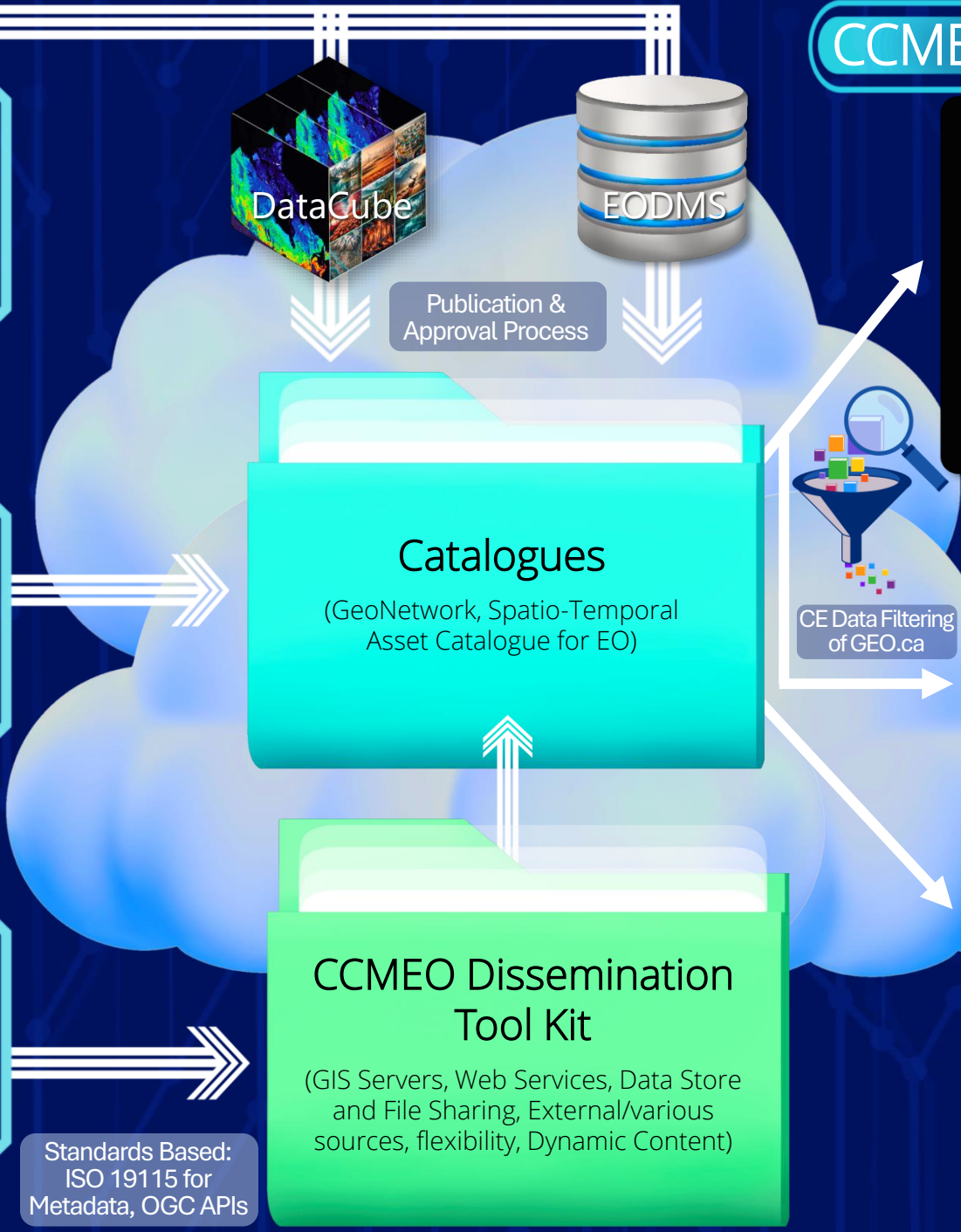
Federated Open Data Search



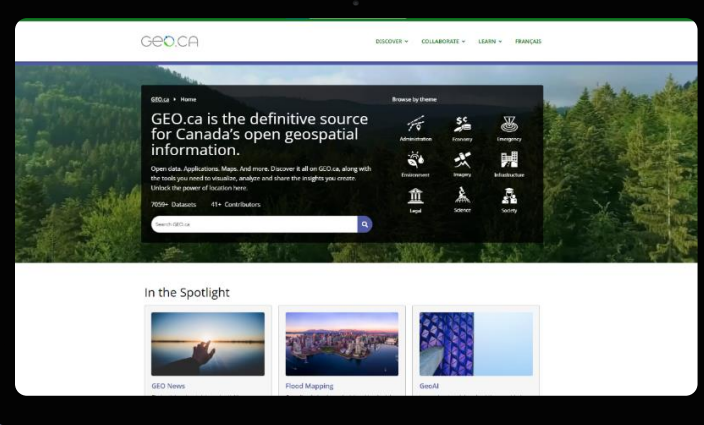
Canada



NRCan Stat Can PS ECCC OGDs



CE Data Filtering of GEO.ca



gEO.ca

DISCOVER COLLABORATE LEARN FRANCAIS

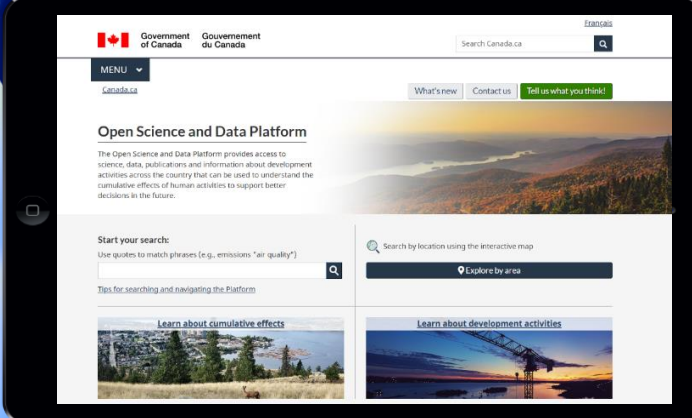
GEO.ca is the definitive source for Canada's open geospatial information.

Open data. Applications. Maps. And more. Discover it all on GEO.ca, along with the tools you need to visualize, analyze and share the insights you create. Unlock the power of open data here.

205+ Datasets 11+ Contributors

In the Spotlight

GEO News Flood Mapping Search



Government of Canada / Gouvernement du Canada

Search: Canada.ca

Canada.ca

What's new Contact us Tell us what you think!

Open Science and Data Platform

The Open Science and Data Platform provides access to science, data, publications and information about development activities across the country that can be used to understand the cumulative effects of human activities to support better decisions in the future.

Start your search:

Use quotes to match phrases (e.g., "emissions 'air quality'")

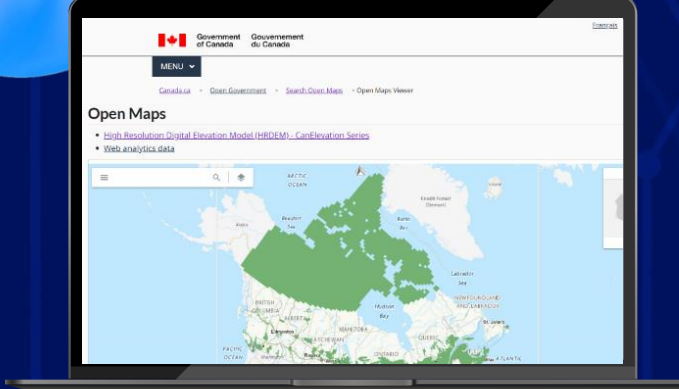
Search by location using the interactive map

Explore by area

Tips for searching and navigating the Platform

Learn about cumulative effects

Learn about development activities




Government of Canada / Gouvernement du Canada

Canada.ca

Open Maps

- High Resolution Digital Elevation Model (HRDEM) - CanElevation Series
- Web analytics data



Standards we use for publishing geospatial data

The [TB Directive on Open Government](#) requires open data be released in accessible and reusable formats. All our core platforms help meet this Directive in the geospatial context by adhering to the [Standard on Geospatial Data](#) which defines the metadata and data standards to be used for ease of sharing and discovery, in addition to other Standards.

ISO 19115 (International Standard)

- A detailed “data passport” that tells you everything you need to know about a specific dataset or map. Describes geographic information and services (i.e., quality, identification, spatial & temporal details, etc.).
- GCGeo (FGP) uses our **Harmonized North American Profile (H-NAP)**: Guidelines to use ISO 19115 for GC geospatial data.

OGC APIs (Open Geospatial Consortium)

- Modern standards for accessing geospatial data and services online.
- **OGC WMS** (Web Map Service): Provides a way for users to request map images from a server.
- **OGC API-Records**: It is like a “search engine” for finding data, metadata and services for geospatial resources.

STAC (SpatioTemporal Asset Catalogue)

- A community-driven standard that provides a consistent way to organize, describe and share satellite imagery, aerial photos and EO data.

CSW (Catalogue Services for the Web)

- A “library catalog system” but for geospatial data.
- An older standard/system for discovering and retrieving metadata from geospatial catalogs.

How to publish data to inform analyses using GCGeo

Self-Service Dissemination Toolkit

- The ability to discover, access, combine and visualize location-based data is enabled through web mapping services. Each dataset in our catalogue has an associated web service. However, geospatial web services are not always easy or intuitive to navigate/understand, especially for new or non-expert users.
 - Send a request to fgp-pgf@nrcan-rncan.gc.ca
 - Share your data with us – we will publish a Web Mapping Service
 - You will be asked to create metadata and publish it on [GCGeo/GCGéo](#).
 - Any data published on GCGeo is available on GEO.ca, Canada.ca and the OSDP
 - Use your own or leverage other datasets to create maps, view interactions between layers, inform your analyses, and develop new insights.

Leverage F/P/T data
GEO.ca (Canada.ca) has:

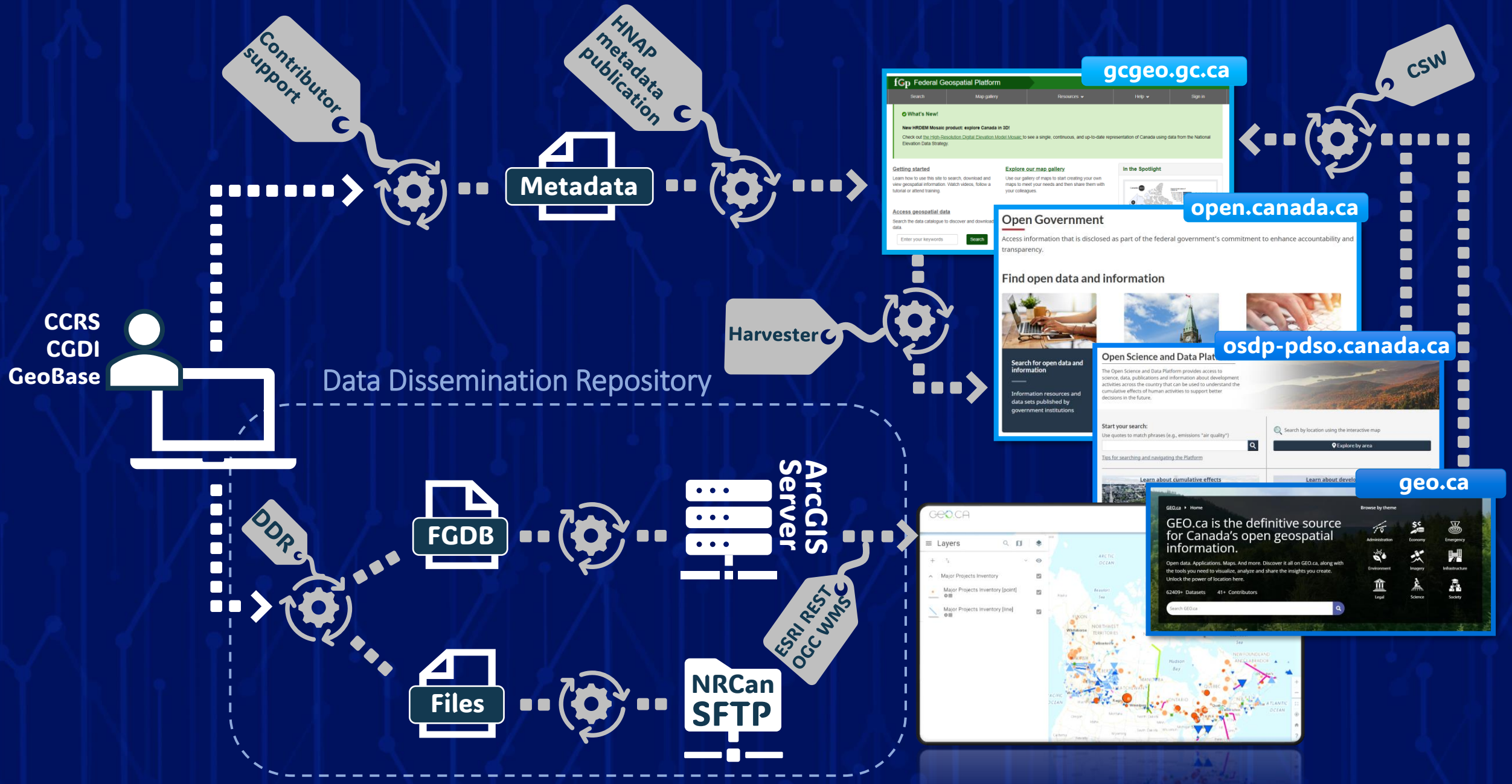
Over 3200 datasets from
Federal Organizations

Almost 400 NRCan
datasets

Over 9,500 P/T datasets
(4901 geo, 4900 non-geo)

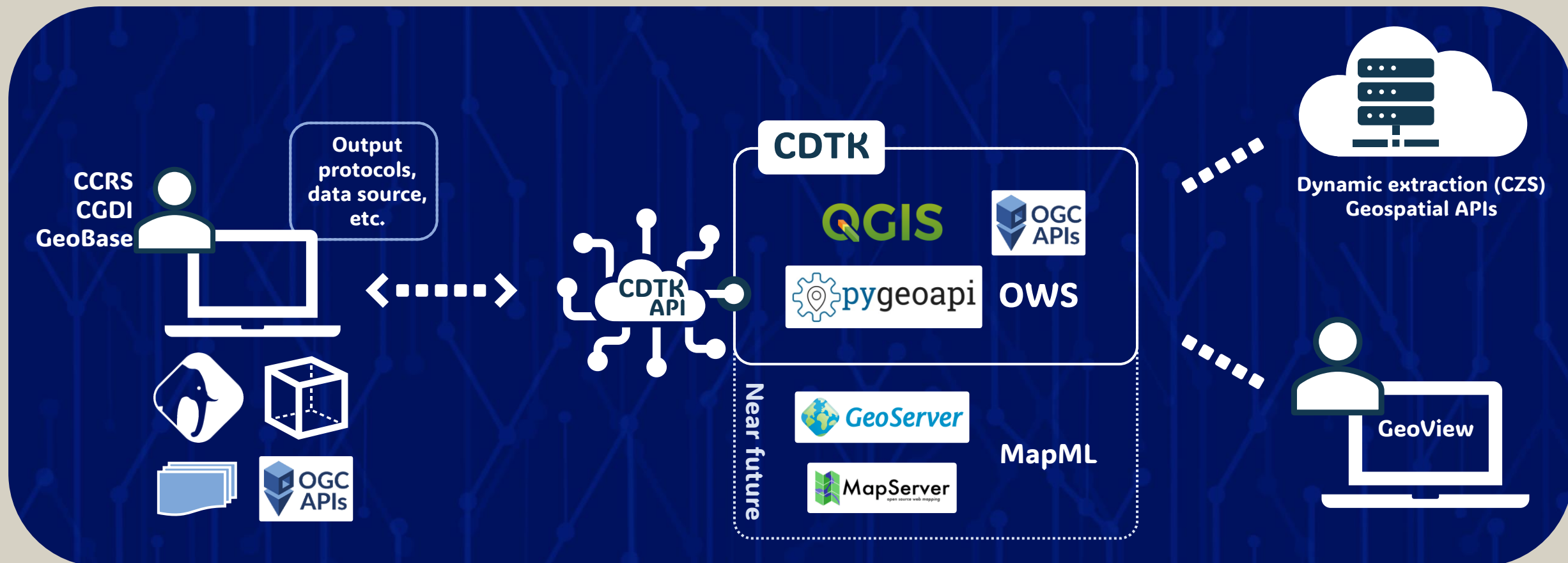


Current publishing process



CCMEO Dissemination Toolkit (CDTK)

- GeoDiscovery solution to facilitate Geospatial Data Dissemination for CCMEO
- Improvement of current solution (DDR): Standard-oriented, multi-software, external/various sources, flexibility
- Deployed in CCMEO IT FRAMEWORK



GEO.ca: Web Content Accessibility Guidelines (WCAG) Implementation

GC Requirements: [Standard on Web Accessibility](#) requires web content/pages to meet all five [WCAG 2.0 conformance requirements](#), ensuring content is accessible to a wide range of people who have disabilities and enhancing usability for all users in general.

Assessment: User Interface and User Experience (UI/UX)

Review GEO.ca's structure, content and features using the newest WCAG checklist:

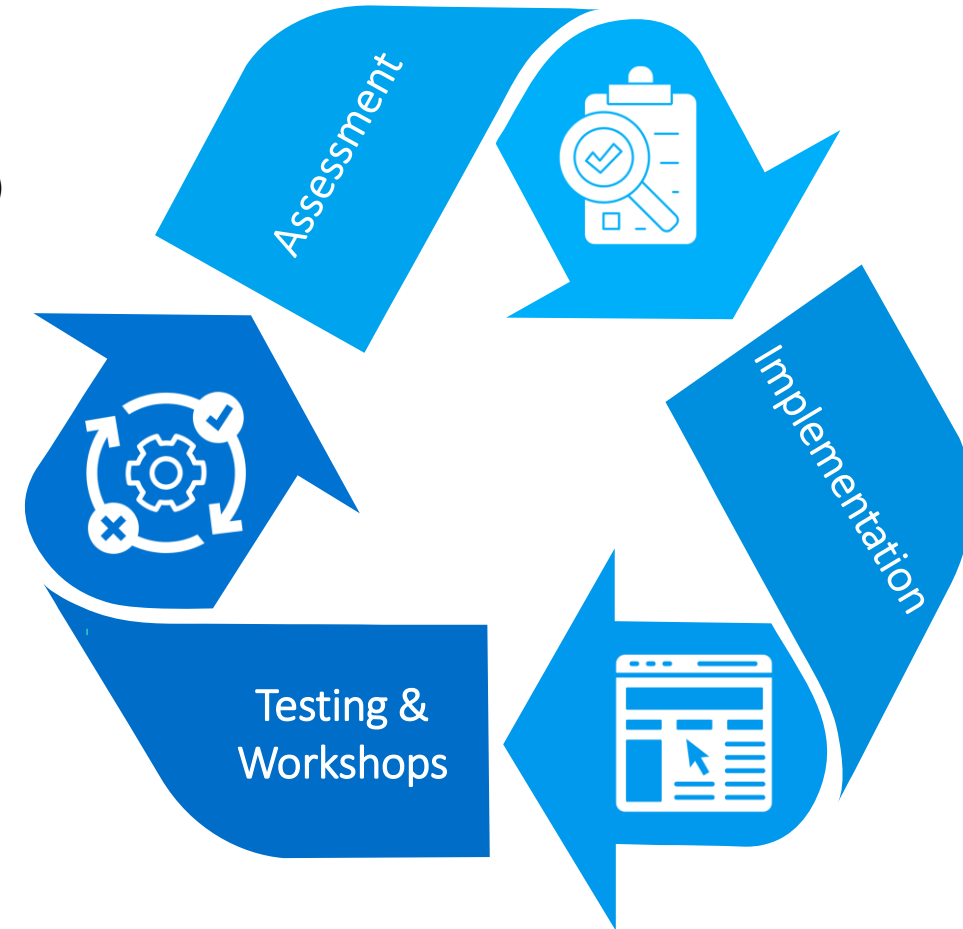
1. **Perceivable: Content is easy to see** (i.e., text alternatives for maps/images; design: colours, contrast, simple layouts, etc.)
2. **Operable: Content is usable by all** (i.e., all functionality available via keyboard; navigation cues)
3. **Understandable: Content is easy to understand** (i.e., text is readable/clear)
4. **Robust: Compatible with current/future technologies** (works across different web browsers and assistive technologies)
5. **Conformance**

Implementation

- **Implement solutions** through coding, content development, design, etc.
- **Test solutions** implemented prior to publishing.

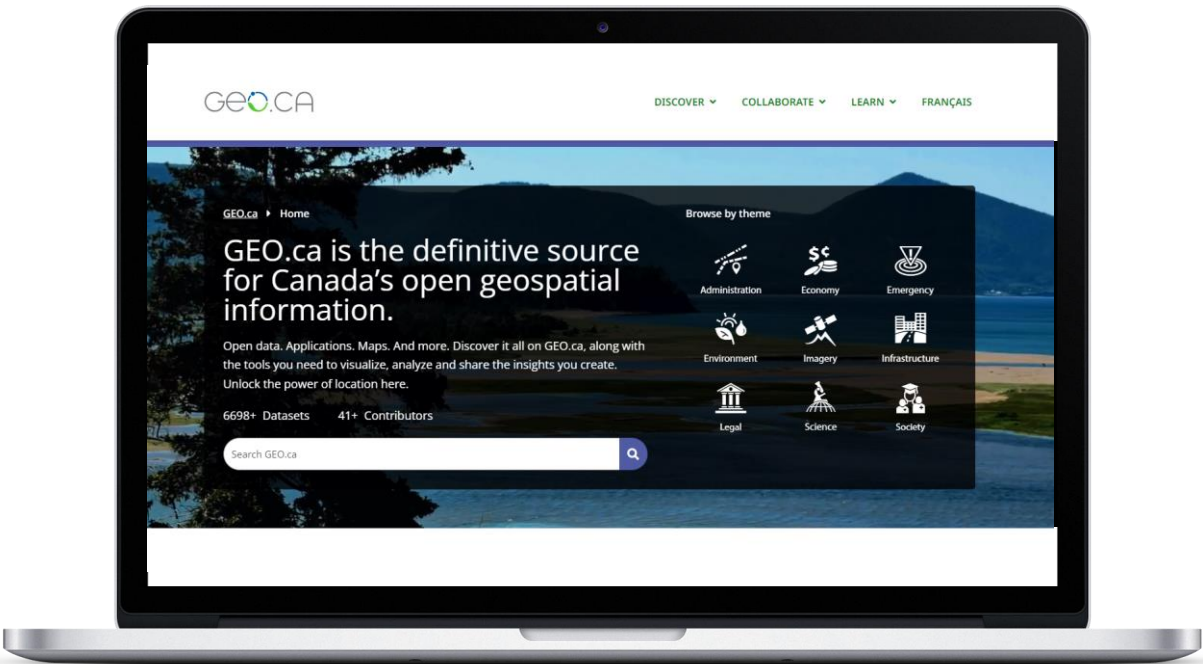
Testing & Reporting


- **WCAG and UI/UX testing/assessment is ongoing for every release** to ensure map components and technologies are designed/developed to comply with requirements. For any issues, we log them on GitHub to be addressed.
- **GeoView User Testing and Workshops:**
 - Users are recruited to test the UX based on the High-Fidelity Prototypes
 - Results are analyzed and changes are implemented based on feedback




GEO.CA

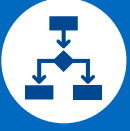
THE DEFINITIVE SOURCE FOR CANADA'S OPEN GEOSPATIAL INFORMATION




 GEO.ca is a site for the Canadian public to access, discover and share open geospatial data, applications, maps and other resources. It equips users with the tools to visualize, analyze and share insights created.

 Through F/P/T collaboration, GEO.ca: coordinates/curates authoritative geospatial data and content & provides access to leading-edge technology and applications.

 41+ Contributors, 7671+ Datasets on past/present features of Canada's land, water, and infrastructure. Over 57,000 Sentinel-1 Records with value-added features for discoverability and display. Data published on GEO.ca is automatically disseminated to TBS Open Data.

 Facilitates education, analysis, informed decision-making and policy and program development, to contribute to the economic, social and environmental well-being of Canadians and GC priorities.

 The online communities feature enables connection and collaboration with other users to spur interaction and innovation.



Natural Resources Canada

Ressources naturelles Canada



Why use GEO.ca?



Can be leveraged to:

Add value to data and projects by enabling visualization to provide a foundation for informed decision-making and discussion.

Bring individuals and organizations together to share insights and solve issues.

Identify threats, monitor risks, inform resource management, and support emergency planning and informing.

Respond to crises and manage disasters more effectively and with near real time data.

Develop a clear picture of environmental disasters, risks and other emergency data and maps.

Find curated information on disasters, such as: earthquakes, fire seasons, flood maps, and health risks such as flu data.

Adapt to an environment where the public expects timely access to emergency data.



How do I use GEO.CA

Find Data

Use the search bar or browse by curated themes or foundation data.

View Data

From the record page, you can view or interact with the data as a map to see the spatial distribution of various data or you can access a detailed metadata record.

- I.e., Identify areas with greatest potential for specific critical events

Explore or create your own map!

Explore ready-to-use interactive map products or develop your own.

- Combine content to create your own maps to support your specific needs and analysis. Add layers from GEO.ca content or create custom layers by importing your own or another source's data.

Finish

Export or share your map and findings!



Our Contributors

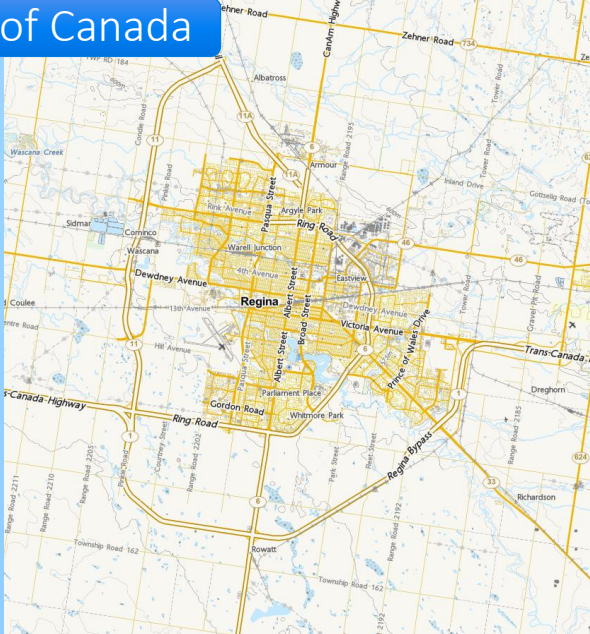
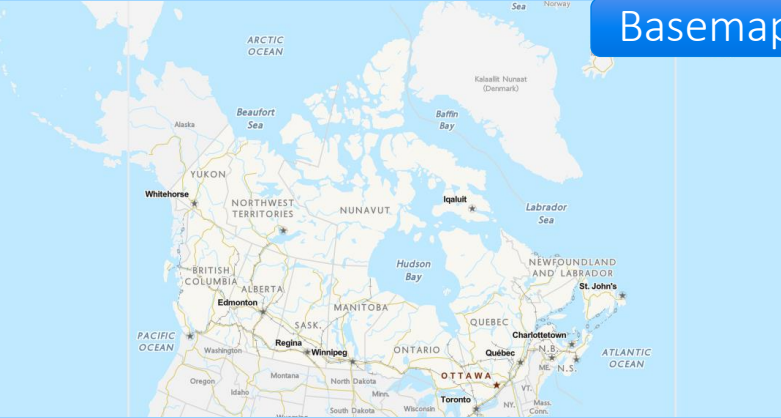
These are the organizations that contribute digital geospatial content to GEO.ca. Join our growing list of contributors.

- | | |
|---|---|
| 1. Agriculture and Agri-Food Canada | 20. Government of Nova Scotia |
| 2. Canadian Food Inspection Agency | 21. Government of Ontario |
| 3. Canadian Heritage | 22. Government of Prince Edward Island |
| 4. Canadian Northern Economic Development Agency | 23. Government of Saskatchewan |
| 5. Canadian Nuclear Safety Commission | 24. Government of Yukon |
| 6. Canadian Space Agency | 25. Health Canada |
| 7. Crown-Indigenous Relations and Northern Affairs Canada | 26. Impact Assessment Agency |
| 8. Department of Justice Canada | 27. Indigenous Services Canada |
| 9. Elections Canada | 28. Innovation, Science and Economic Development Canada |
| 10. Employment and Social Development Canada | 29. National Defence |
| 11. Environment and Climate Change Canada | 30. National Research Council of Canada |
| 12. Fisheries and Oceans Canada | 31. Natural Resources Canada |
| 13. Government and Municipalities of Quebec | 32. Parks Canada |
| 14. Government of Alberta | 33. Public Health Agency of Canada |
| 15. Government of British Columbia | 34. Public Safety Canada |
| 16. Government of Manitoba | 35. Statistics Canada |
| 17. Government of New Brunswick | 36. Transport Canada |
| 18. Government of Newfoundland and Labrador | 37. Veterans Affairs Canada |
| 19. Government of Northwest Territories | |

Browse by theme



Basemap of Canada



National Parks and National Park Reserves of Canada Legislative Boundaries

Explore Canada's National Parks, settlement land, protected areas and more with our National Parks and National Park Reserves of Canada Legislative Boundaries interactive web application.

National Parks and National Park Reserves of Canada Legislative Boundaries
4 of 4 classes

- Name
- National Park of Canada
- National Park Reserve of Canada
- Rouge National Urban Park
- Saguenay-St. Lawrence Marine Park

GeoView

Semantic Search Engine

Semantic Search API Demo for GEO.ca

Front-end demo v0.3.0 (2024-07-04), work-in-progress

Semantic search engines surpass simple keyword matching by interpreting the intent and context of queries. Unlike traditional searches, semantic search processes natural language and complex requests, recognizing synonyms and variations. We fine-tuned Sentence-Transformer models to enhance search relevance for geospatial metadata. The semantic search-API is deployed using Amazon OpenSearch and Amazon SageMaker.

Visit our GitHub repositories:

- semantic-search-model-evaluation
- semantic-search-with-amazon-opensearch
- semantic-search-demo

Search: earthquakes in canada

Semantic search results

1. **Canada's National Earthquake Scenario Catalogue**
 Keywords: Emergency preparedness, Earth sciences, Earthquakes, Geological maps
 Organization: Government of Canada/Natural Resources Canada/Lands and Minerals Sector, Geological Survey...
 Published: 2021-07-06 Relevance: 0.8239759; Popularity: 160008

2. **Earthquakes in Canada**
 Keywords: Natural hazards, Canada, Earthquakes, Natural disasters, Seismology, Emergency preparedness, Pu...
 Organization: Government of Canada, Natural Resources Canada/Strategic Policy and Innovation Sector, Fed...
 Published: 2010-02-07 Relevance: 0.7996233; Popularity: 30274

Keyword search results

1. **Floods in Canada - Cartographic Product Collection**
 Keywords: Emergency services, History, Archives, Floods, Natural disasters
 Organization: Government of Canada, Natural Resources Canada
 Published: 2010-04-12 Popularity: 7213024

2. **Canadian Protected and Conserved Areas Database (CPCAD)**
 Keywords: Canada, Canadian Protected and Conserved Areas Database (CPCAD), Protected and Conserved Ar...
 Organization: Government of Canada, Environment and Climate Change Canada, Canadian Wildlife Service
 Published: 2022-12-31 Popularity: 20024

EO Data

Back to search

Collection - Sentinel-1

ABOUT THIS DATASET
The Sentinel-1 mirror is maintained by the Government of Canada through the Copernicus collaborative ground segment program as well as EUMETSAT. Data is made available as quickly as possible based on Canada coverage availability at the source.

Search MyMap Français

Similarity Engine

Floods in Canada - Cartographic Product Collection

ABOUT THIS DATASET
Collection of flood products for active and past floods throughout Canada as monitored by Natural Resources Canada using satellite imagery for emergency response. This collection of cartographic products regroup flood extent polygons and their associated footprints. Three visualization timeframes are available:

- Active Floods in Canada
- Floods in Canada - Current Year
- Floods in Canada - Archive

KEYWORDS: Emergency services, History, Archives, Floods, Natural disasters

METADATA

DATE CREATED	2011-04-29
DATE PUBLISHED	2018-04-12
TEMPORAL COVERAGE	2011-04-04 Present
SOURCE(S)	Government of Canada; Natural Resources Canada
USE LIMITATIONS	Open Government Licence - Canada http://open.canada.ca/en/open-government-licence-canada

ADD TO MAP
This record has no viewable component.

SIMILAR RECORDS

- Floods in Canada - Archive
- River Ice State in Canada - Cartographic Product Collection
- Floods in Canada - Current Year
- Active Floods in Canada
- River Ice in Canada - Current Year
- Canada Flood Map Inventory (CFM)
- River Ice in Canada - Archive
- Flood Susceptibility Index (FSI)
- Active Monitoring of River Ice in Canada
- Spring 2019 flood mapping

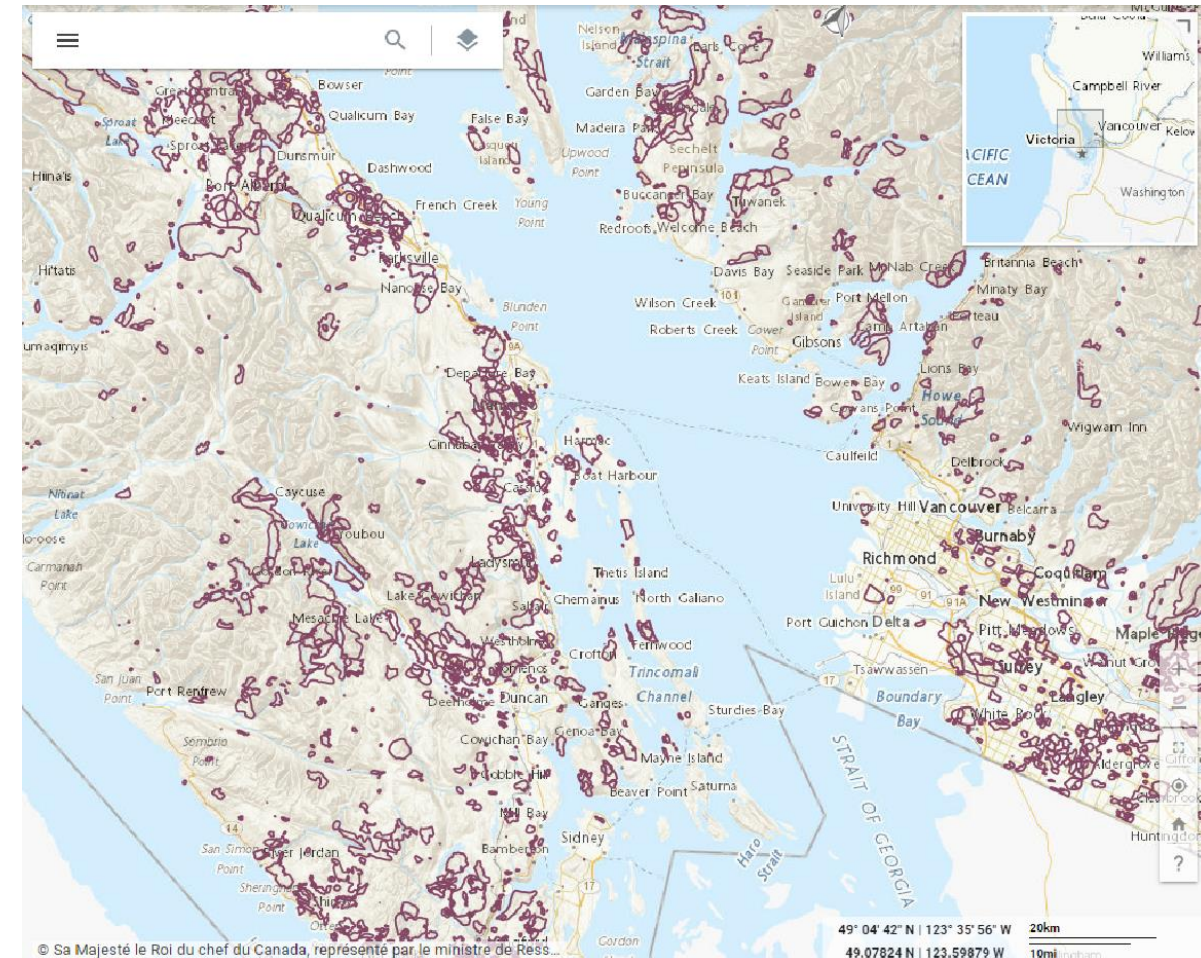
GEO.ca Innovations

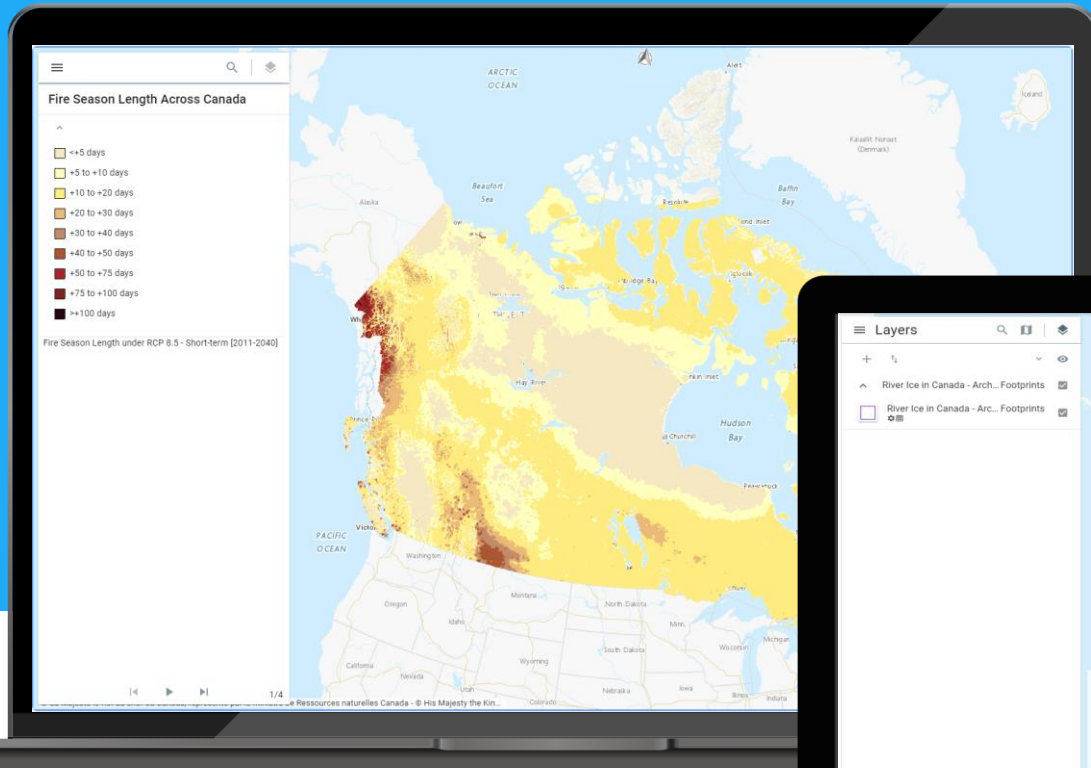
Emergency Datasets on GEO.ca

- **Since 2016:** we have onboarded ~ 89 datasets with 6 contributors, under the theme of Emergency, to GCGeo, making them available on Canada.ca, GEO.ca and the OSDP.
- *There are many other NRCan and F/P/T datasets available on GEO.ca that are relevant to our emergency theme, such as datasets on air quality, natural disasters, historical data, natural hazards, etc.*

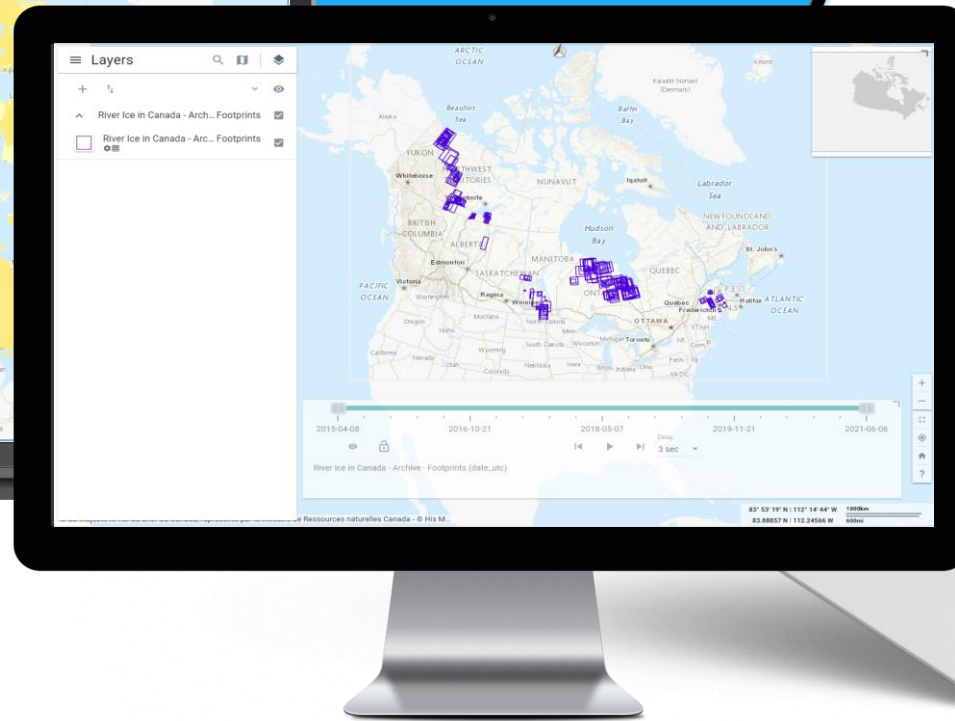
□ Historical Fire Polygons

BC Wildfire Fire Perimeters - Historical





Fire Season Length Across Canada, Natural Resources Canada, Federal Geospatial Platform



River Ice in Canada, Natural Resources Canada, Emergency Geomatics Services

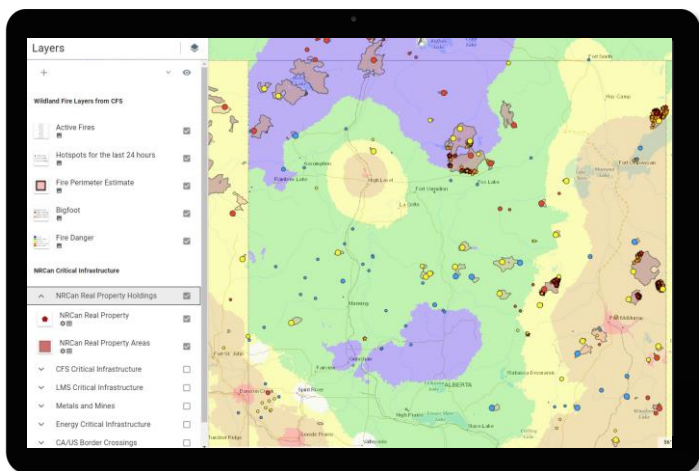


Canadian Protected and Conserved Areas Database (CPCAD), ECCC, Canadian Wildlife Service

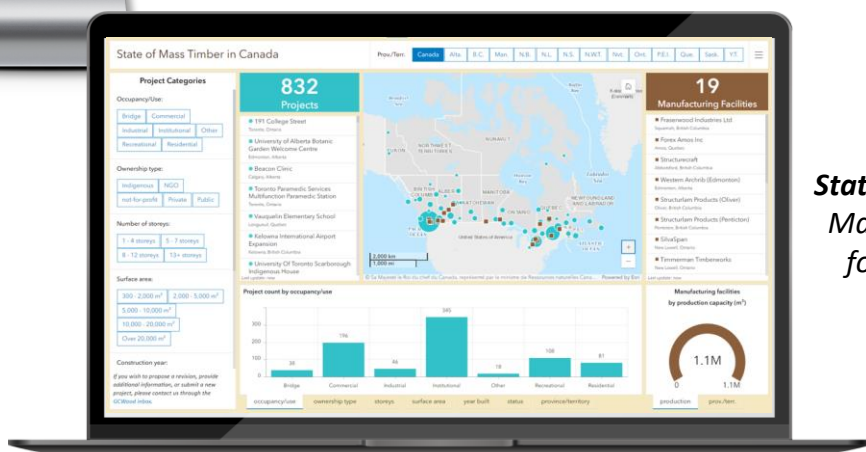


Other opportunities for collaboration: How can we support you?

Wildfires for DEOC
GeoProducts team delivery in season



Flood Susceptibility in Canada: Swipe Map
Classed from low to high susceptibility on the right (0-100)



State of Mass Timber in Canada
Map, Database and Dashboard
for Canadian Forest Service,
NRCAN

Provide guidance or collaborate on:

Creation of custom mapping products

The mapping workflow

Geospatial software options

Workflows

Map Design

Project collaboration

Data Sharing

Sharing of Basemap of Canada and support
on integration in your applications/projects

Sharing of geospatial knowledge



Collaboration Opportunities

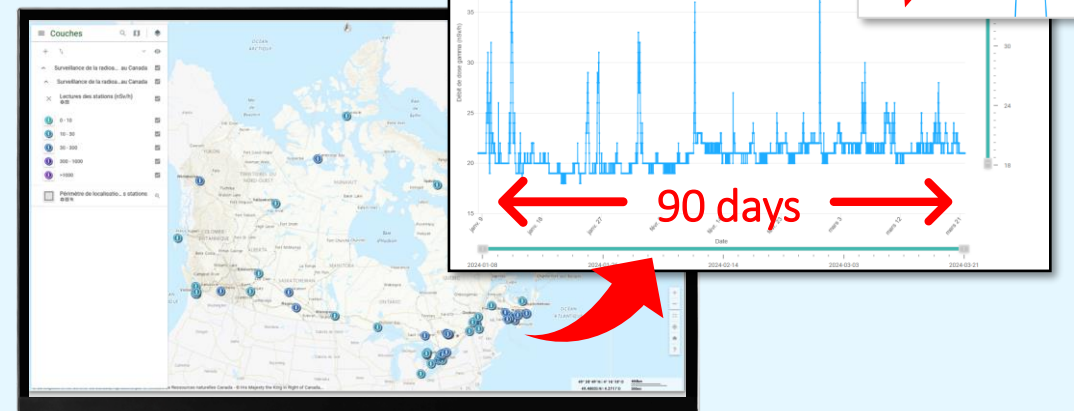
Real-Time Web Mapping Collaboration with Health Canada

- **HC collaboration agreement to publish the “Real-time Environmental Radioactivity Monitoring”** dataset to GEO.ca, Canada.ca, OSDP.
 - **First near-real-time web mapping service** – updates and displays radioactivity measures from sensors across the country every 15 min.
 - **Expanded our capabilities** in displaying/visualizing near real-time data.
 - **Exploring opportunities** to apply these skills to other data sources that generate data regularly and replicate the near real-time mapping process, in support of NRCan priorities.

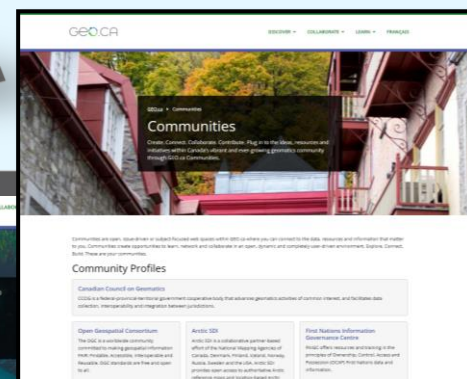
GEO.ca Initiative Pages & Communities

- **Initiative Pages:** Featured geospatial initiatives on GEO.ca:
- **Communities:** Open, issue/subject-focused web spaces in GEO.ca where you can connect to data, resources and information – to spur interaction and innovation.
 - **Increase exposure** of your work by reaching a broader audience
 - **Enhanced visibility:** Provide direct links to your key pages, promoted through social media
 - **Align with GC priorities:** Open data/government
 - **Advanced visualization:** GeoView and Basemap of Canada
 - **Authoritativeness of GEO.ca**

HC “Real-time Environmental Radioactivity Monitoring Dataset



GEO.ca Initiative Pages & Communities



Spotlighted on
GEO.ca's Homepage



Natural Resources
Canada

Ressources naturelles
Canada

Canada

GeoDiscovery: Emergency Geomatics Management, Products & Services

In collaboration with other CCMEQ divisions, NRCAN sectors and GC Depts., we support various emergency management and response activities.

Data integration

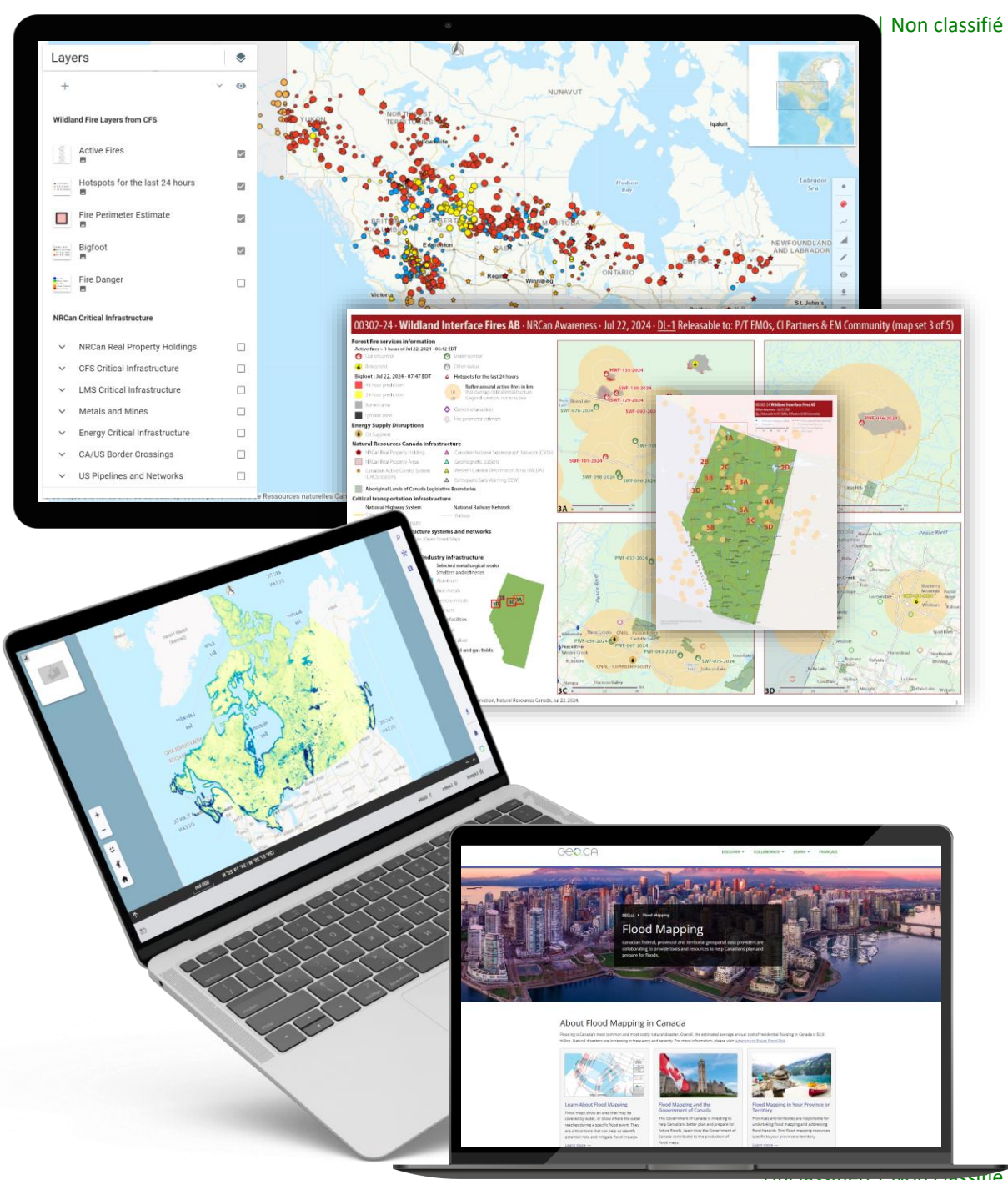
- Our Data Integration Team leads geospatial data onboarding and infrastructure in support of key priorities and programs (i.e., EGS, FHIMP, etc.).

Data Dissemination

- In collaboration with CCMEQ's GeoBase division, our Online Application Technologies (OAT) and Content & Engagement Teams develop, design and maintain FHIMP's web presence & content on GEO.ca and disseminate FHIMP datasets.
- The OAT Team delivers geospatial applications/technology to support CCMEQ's platforms and initiatives such as FHIMP and EGS (see our new visualization tool GeoView on the right displaying the Flood Susceptibility Index Map).

On-Demand Custom Value-Added Natural Hazard Mapping Products/Services

- The GeoProducts Team supports DEOC, CCRS/EGS and others, by developing custom natural hazard risk mapping products (i.e., wildfires, floods, etc.). This analyzed-ready data supports NRCAN, GoC departments., emergency responders, critical infrastructure partners and the public. Our expertise in GIS, geomatics and cartography enable the production of reliable near real-time situational awareness maps, with detailed views of high-risk areas and of NRCAN's critical infrastructure and assets. Products include static & interactive maps (i.e., PDF map books, geospatial info for map viewers/analysis tools, etc.). GeoProducts won a SPI Sector Merit Award for our work during Canada's record-breaking wildfire season in 2023.
- GeoProducts develops/maintains the Basemap of Canada – the critical foundational layer for location context, it is essential for the visualization and analysis of any emergency/hazard map. Our Basemap is very popular, with over 1.4M visitors per month. Our renewed OSM-Integrated Vector Tile Basemap will be launched this fall for others to integrate into their applications/processes. It has improved data currency, performance, quality, etc. and supports official languages and place names, Indigenous place names and authoritative administrative boundaries.



Non classifié

Non classifié

Scope of our Services

Our Capabilities: Potential Areas for Engagement & Support

- Access **open data** and disseminate/publish through a standardized publishing environment
- Synchronize data from departments and link to/publish metadata
- Provide support in data dissemination and visualization tools
- Develop curated client-focused products and services
- Provide access to web services, maps and apps
- Share best practices
- Leverage interoperable standards

Constraints

- Developing new technologies from scratch
- Human resource availability
- Financial resources and budget
- Time (duration) of projects



Conclusion

CCMEO: Innovative Geospatial Solutions

CCMEO leverages domestic & international, public & private collaboration across sectors to advance Earth Observation, Spatial Data Infrastructures, and geospatial data development activities.

Our products address policy priorities, such as **climate change, disaster preparedness, emergency response, management of natural resources**, etc.

They are disseminated as open data through **ready-to-use platforms** like GEO.ca, Canada.ca, the OSDP and Arctic SDI.

Innovative efforts include:

Custom APIs, map viewers, plug-ins, AI/ML search engines.

AI Data Pipeline to automate extraction and mapping of key features – e.g., roads, forests, buildings, water - generating products and **analysis-ready data** such as the GeoAI GeoBase Data Series.

Advancing innovative regional flood modelling techniques.

CCMEO contributes to Indigenous reconciliation efforts:

CCMEO-created interactive maps and public exhibits to share Indigenous knowledge and cultures.

Appointments of Indigenous advisors to the Geographical Names Board of Canada.

Basemaps that support both Official Languages, Indigenous languages, and official place names.

Publication of a best practices handbook to help Indigenous communities repatriate their own place names.





Natural Resources
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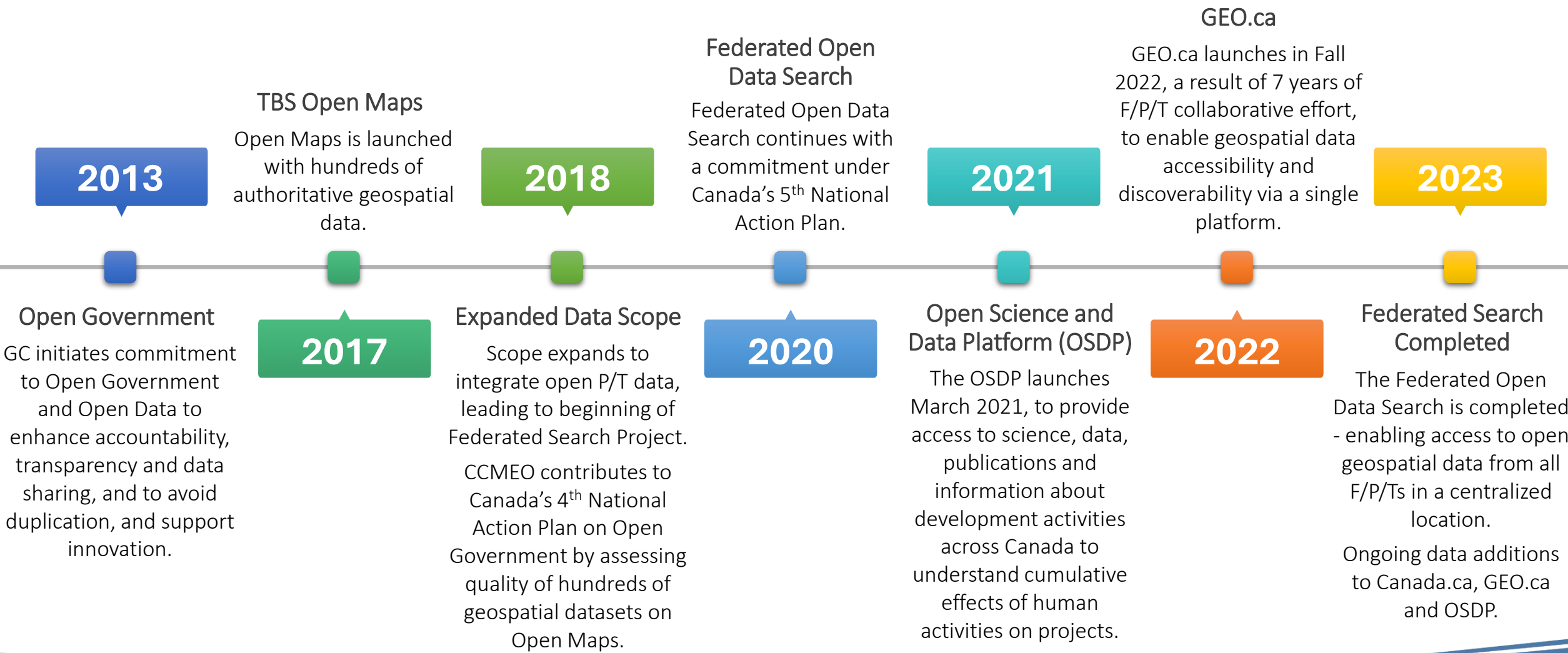
Thank you!

Canada 

ANNEX



Our Role in Open Government



The Open Science and Data Platform

- Co-led by NRCan and ECCC, the OSDP facilitates access to information to **increase understanding of cumulative effects** and support better decision-making.
- More than 150,000 cumulative effects-relevant records from 29 government providers (17 F; 10 P; 2 T).
 - Themes: water, air, land, biodiversity, climate, human health, society & culture, economy & industry.
 - Scientific publications, geospatial datasets, monitoring station data, development activities via regulatory registries, content collections in regions of interest.
- Search by keyword or region of interest; advanced search filters (i.e., date, provider).
- Features interactive maps, datasets, and thematic curated searches.



osdp-psdo.canada.ca

Publications

Datasets

Monitoring
Stations

Development
Activities

Content
Collections



Natural Resources
Canada

Ressources naturelles
Canada

Canada

CCMEO Data Dissemination Portals

GEO.ca

Audience: Geo-specialists and experts

Vision: Open data, applications, maps, and more. Discover it all on GEO.ca, along with the tools you need to visualize, analyze and share the insights you create. Unlock the power of location here.

Content: The Data and Science

- Metadata catalogue (metadata publication process).
- Initiatives and topics of benefit and/or interest to CCOG.
- Data and science information and innovations (technical and scientific).
- Interactive maps that do not fall under Atlas of Canada themes and principles (ex. HRDEM mosaic map: coverage too sparse, not curated relief map).
- All content must be related to data/services published on GEO.ca or technology leveraged by GEO.ca

Atlas of Canada

Audience: Canadian general public, learners, educators

Vision: A modern and innovative suite of geographic products telling the stories of Canada, accessible to all Canadians.

“Discover Canada through geography”

Content: The Maps

- Value-add curated cartographic products and tools falling under the Atlas themes (ex. forest fire time-enabled map, Toporama).
- Historical maps falling under Atlas themes.
- Educational and learning resources for non-experts/beginners (ex. geography facts, tutorials etc.).

Canada.ca

Audience: General Public

Description: Provides information on CCMEO programs & services using Canada.ca architecture, explains link b/w CCMEO activities and NRCan priorities. Links to Atlas, GEO.ca, provides access to content, maps, reports, publications, etc.

Content: The Overview

- Services and information (complete a task, answer questions about services, reports, guides, digital services or databases).
- Program and policy development
- Corporate information.
- Campaigns and promotions leading to services and information or program and policy development.
- News (backgrounders, media advisories, news releases, speeches...).

Basemap of Canada

CCMEO maintains the Basemap of Canada

- The foundational layer that provides a location reference to provide user context. Essential for visualization and analysis when constructing maps, adding layers and data.

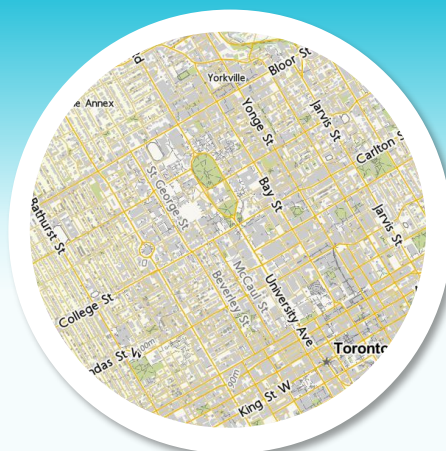
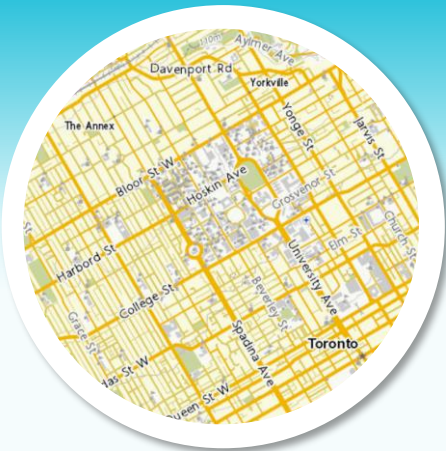
Widely used and highly valued

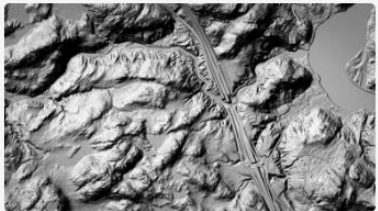
- CCMEO Basemaps are broadly used across NRCan, OGDs, P/T govts., industry and the public - one of the most used Web products, with 1.4M unique visitors per month.
- Fully supports both Official Languages and Canadian place names, Indigenous languages and place names, and authoritative administrative boundaries. It is web accessible and provides better coverage in rural, remote and northern areas of Canada than most private sector Basemap offerings.

CCMEO is currently renewing the Basemap

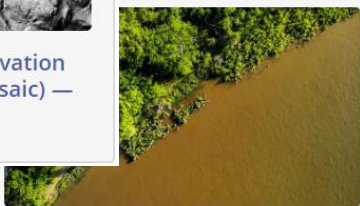
- To improve: data currency, data maintenance, frequency of updates, enhanced performance, creation speed and quality, style flexibility, up-to-date Indigenous place names and vector tiles output.

Open Street Maps integrated Vector Tile Basemap, in both French and English, will be ready for soft launch for collaborators and public to integrate into their applications and processes by September 2024.

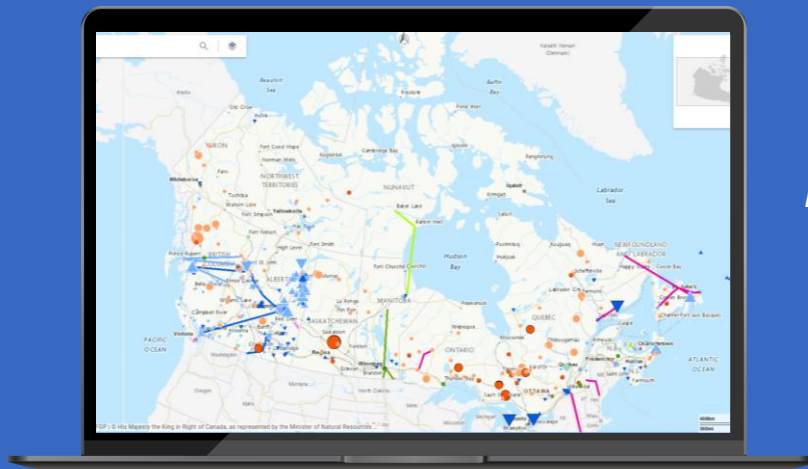




High Resolution Digital Elevation Model Mosaic (HRDEM Mosaic) — CanElevation Series



Floods in Canada — Cartographic Product Collection



NRCan's Major Projects Inventory

Prospectivity Model



Stories from the land
Indigenous Place Names in Canada on GEO.ca



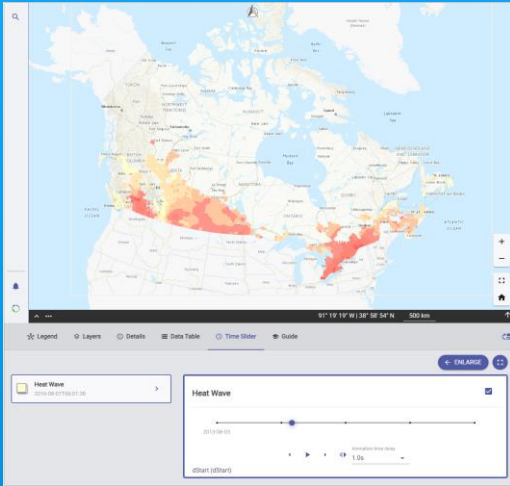
Flood Susceptibility in Canada: Swipe Map
Classed from low to high susceptibility on the right (0-100)



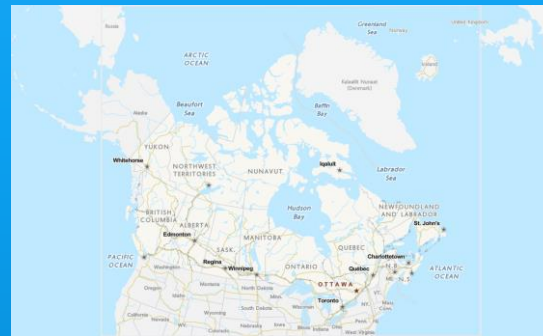
Curated Mapping Products

GeoDiscovery CCMEQ Products, Applications and Services

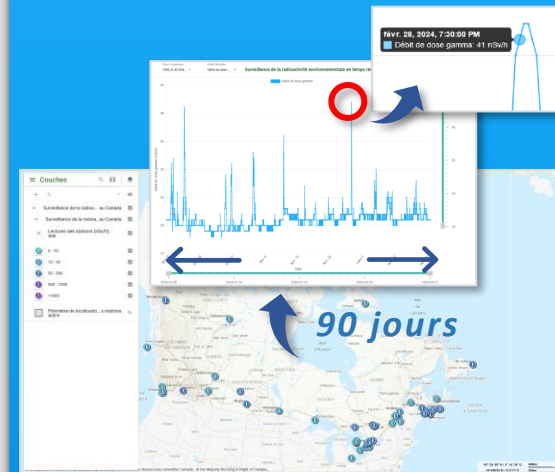
GeoView



Basemap of Canada



Near Real-Time



<https://gcgeo.gc.ca/viz/index-en.html?keys=f0d1c3a9-cf78-4b07-af55-9e8d4303449e>

Innovation (Similarity Engine, Semantic Search)

ADD TO MAP

View the data in depth by adding it to a map.

View on Map

Add to MyMap

SIMILAR RECORDS

- 2010 Land Cover of Canada
- [2020 Land Cover of Canada](#)
- Canadian Land Cover, Circa 2000 (Vector) - GeoBase Series, 1996-2005
- Collection - Land Cover of Canada
- 2015 - Land Cover of Canada
- 2010 - Land Cover of Canada
- 2020 - Land Cover of Canada
- Ontario Land Cover Compilation v.2.0
- Land cover compilation
- Northern Digital Landcover

What We Serve

Open Science and Data Platform (OSDP)

NRCan Enterprise Investment Fund (EIF)

Flood Hazard Identification and Mapping Program (FHIMP)

SPI/CCMEQ Web Presence



Natural Resources
Canada

Ressources naturelles
Canada

Canada

GeoAI Data Series

- CCMEQ leveraging GeoAI to deliver on its mandate to maintain Canada's foundational geospatial data
- Spatio-temporal data series created using artificial intelligence.
- A collection of geographic features that are:
 - natural or artificial, like roads, buildings, lakes and rivers, and more
 - identified from various sources such as aerial or satellite images
 - automatically extracted by machine learning algorithms
- Enables the ability to identify trends and changes over time to provide a wealth of opportunities to data users.

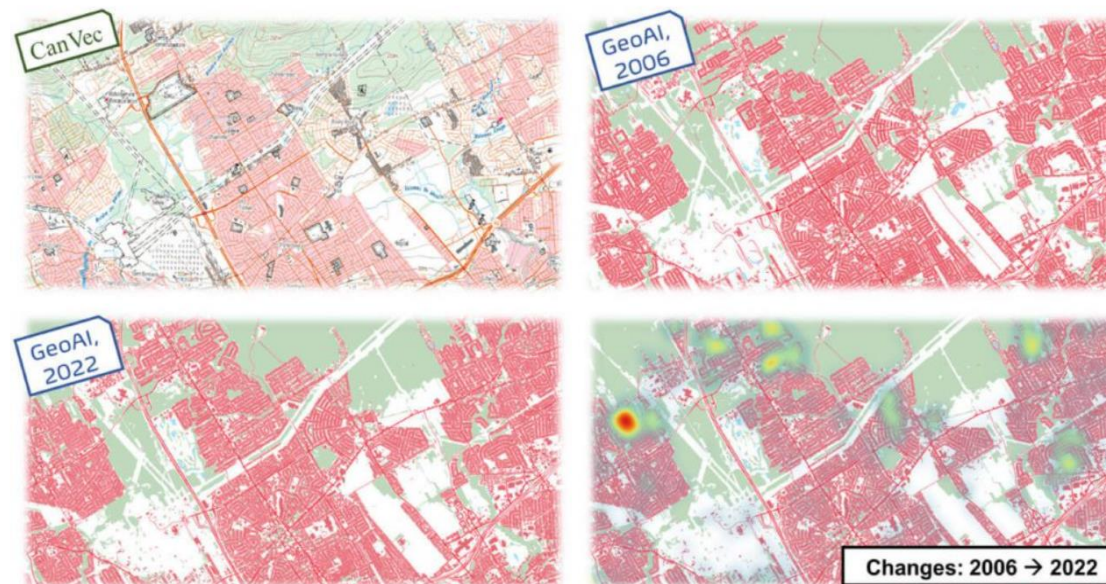


150K km² released October 2023
100K km² coming February 2024



Change Detection

Detect and monitor changes in geospatial data over time. For example, changes in land use due to development, damage to infrastructure after a flood event, or reductions of vegetation coverage after a wildfire.



How we support initiative pages through Social Media

Posts on Critical Minerals Initiative page on GEO.ca

Facebook:

- EN: <https://www.facebook.com/291828829612329/posts/916073590521180>
- FR: <https://www.facebook.com/260058766139220/posts/797224035756021>

LinkedIn

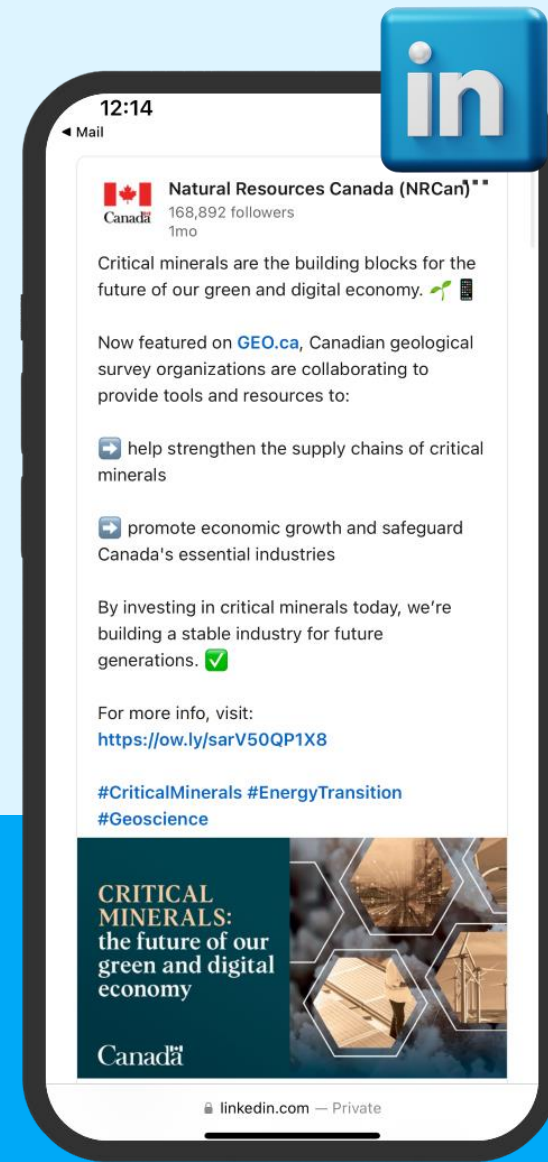
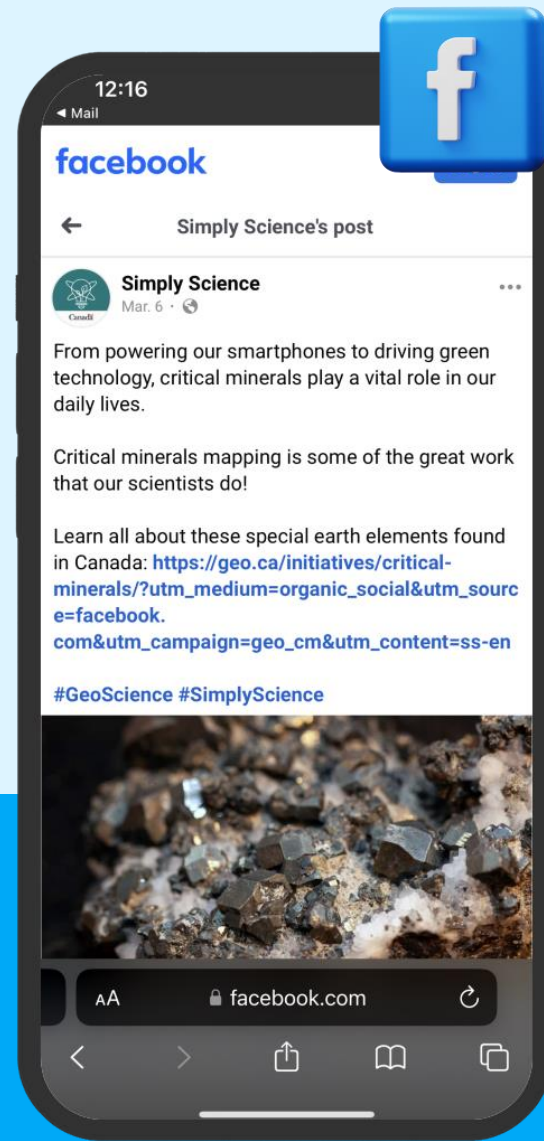
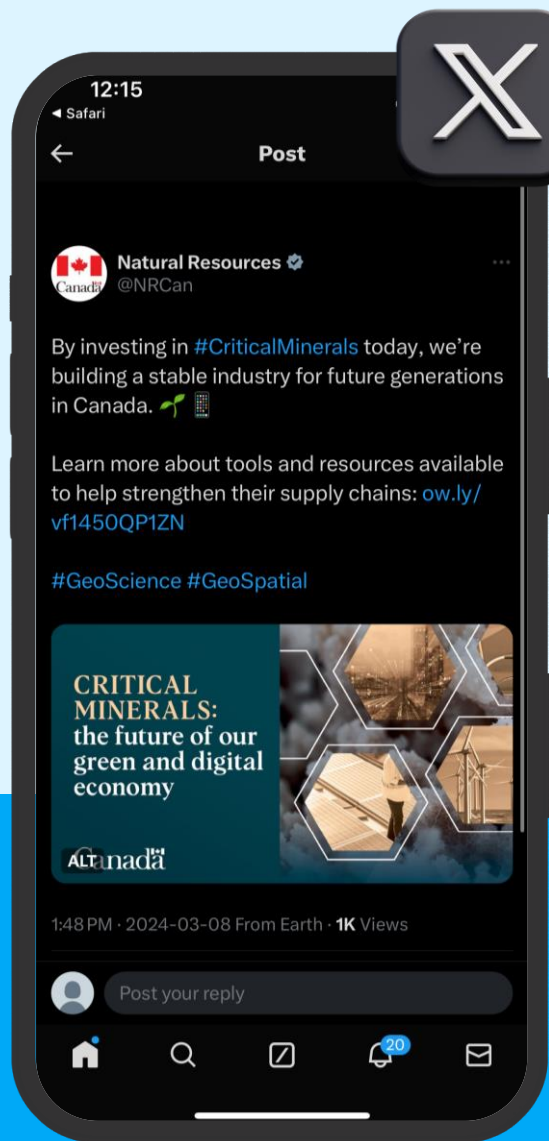
- EN: <https://www.linkedin.com/feed/update/urn:li:share:7171230451943096321>
- FR: <https://www.linkedin.com/feed/update/urn:li:share:7171230871906160641>

LinkedIn

- EN: <https://www.linkedin.com/feed/update/urn:li:activity:7171939980326457346>
- FR: <https://www.linkedin.com/feed/update/urn:li:activity:7171939387176275968>

Twitter (X)

- EN: <https://twitter.com/NRCan/status/1766174283317821716>
- FR: <https://twitter.com/RNCAN/status/1766173691971358827>



Natural Resources
Canada

Ressources naturelles
Canada

Canada