

Enabling Canadian Innovation: Creating “**geoSMART solutions**” from satellite to mobile

May 7, 2014

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Natural Resources
Canada

Ressources naturelles
Canada

Canada 

Geography and natural resources are important to Canada ...



“Data is Canada’s new natural resource...”

- Treasury Board President, Tony Clement, July 2012

- Canada’s Open Government Action Plan 2.0 recognizes that the greatest value of data is found in its liberation and use. Elements:
 - Open Data - Open Dialogue - Open Information
 - Open Government License
 - Next Generation Open Data Portal (data.gc.ca)
 - Pan-Canadian Open Data Strategy (planned)

G8 Open Data Charter Principles:

- *Open Data by Default*
- *Quality and Quantity*
- *Useable by All*
- *Releasing Data for Improved Governance*
- *Releasing Data for Innovation*

“... the possibilities for using this data are as infinite as our imaginations.”

- Tony Clement, June 2013



The Canadian Government is Transforming - its all about working smarter...

- **Blueprint 2020**
 - “the best people working together with citizens, making smart use of new technologies and achieving the best possible outcomes with efficient, interconnected and nimble processes, structures and systems.”

- **Government-wide Policies, Standards and Directives**

- **Shared Services Canada**
 - For a “leaner, more efficient government and better value for taxpayers”

Blueprint 2020 Public Service Vision

- *Open and networked, engaging citizens*
- *Whole-of-Government approach to service*
- *Modern workplace and smart use of technology*
- *High performing workforce*

Policies & Standards

- *Policy on Information Management*
- *Standard on Geospatial Data*
- *Metadata Standard*
- *Directive on Recordkeeping*

Shared Services

- *Data Centre Consolidation*
- *E-mail, Telecommunications and Workplace Technology Devices Transformation*



...in a dynamic and challenging context.

- Rapid pace of technological change
- Budget constraints within the Government of Canada
- Rust-out of critical geospatial infrastructure
- No single source view of Canada's authoritative geospatial data
- Barriers to sharing and integration of data – technology, standards, licensing
- Increasing demand for geospatial data – any time on any platform

94% of respondents in a survey of federal departments reported increasing demand for and use of geospatially-related data to meet business requirements.

Source: FCGEO Survey, May 2012



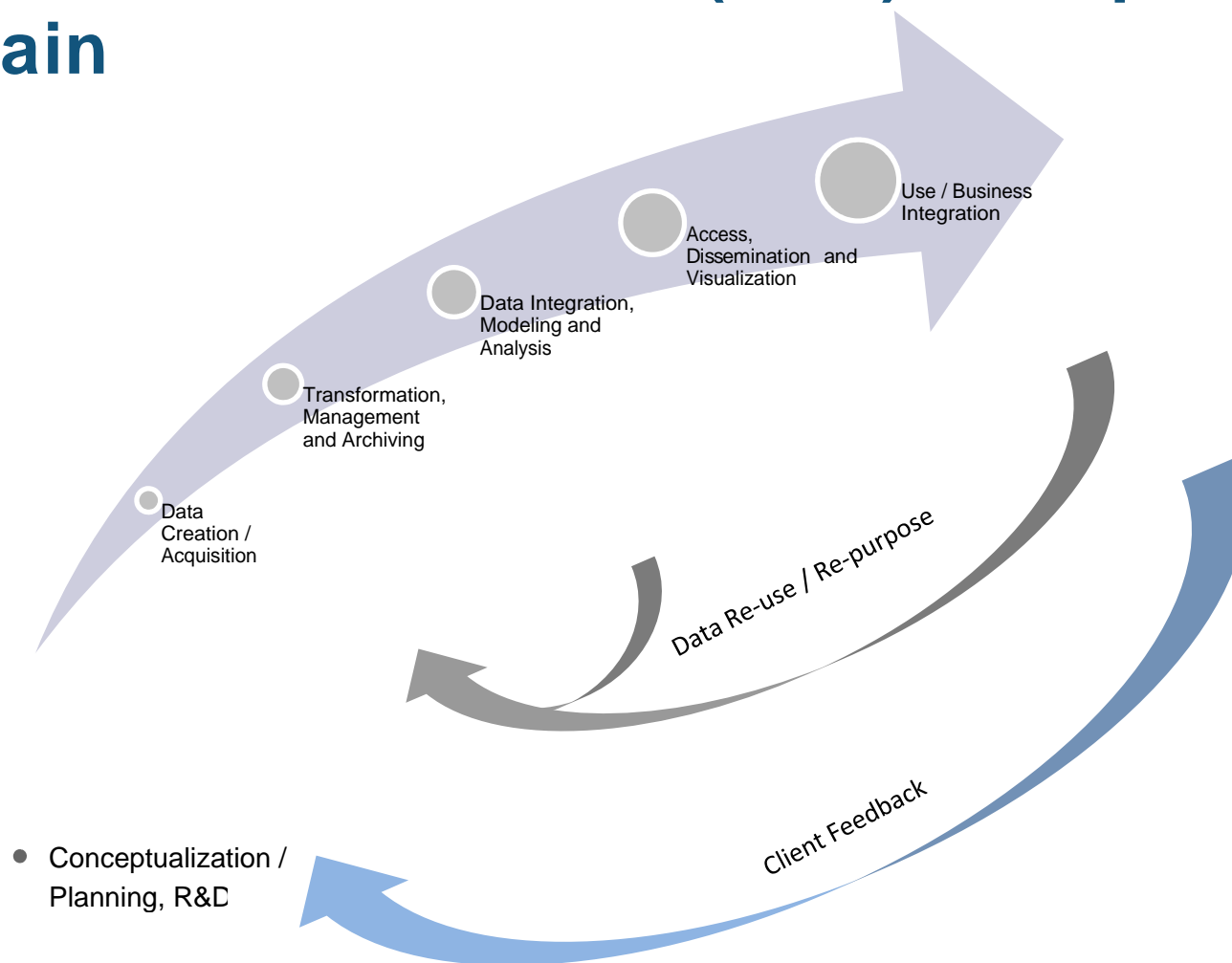
geoSMART solution:

Creation of the Canada Centre for Mapping and Earth Observation...

- Merger of Natural Resources Canada's Canada Centre for Remote Sensing (CCRS) and Mapping Information Branch (MIB) on June 21, 2013. Rationale:
 - Convergence of technologies in mapping and remote sensing
 - Integration of EO and geo translates into more robust applications and analyses for government and business solutions
 - Greater efficiencies through streamlining of parallel imagery and GIS/GPS data value chains



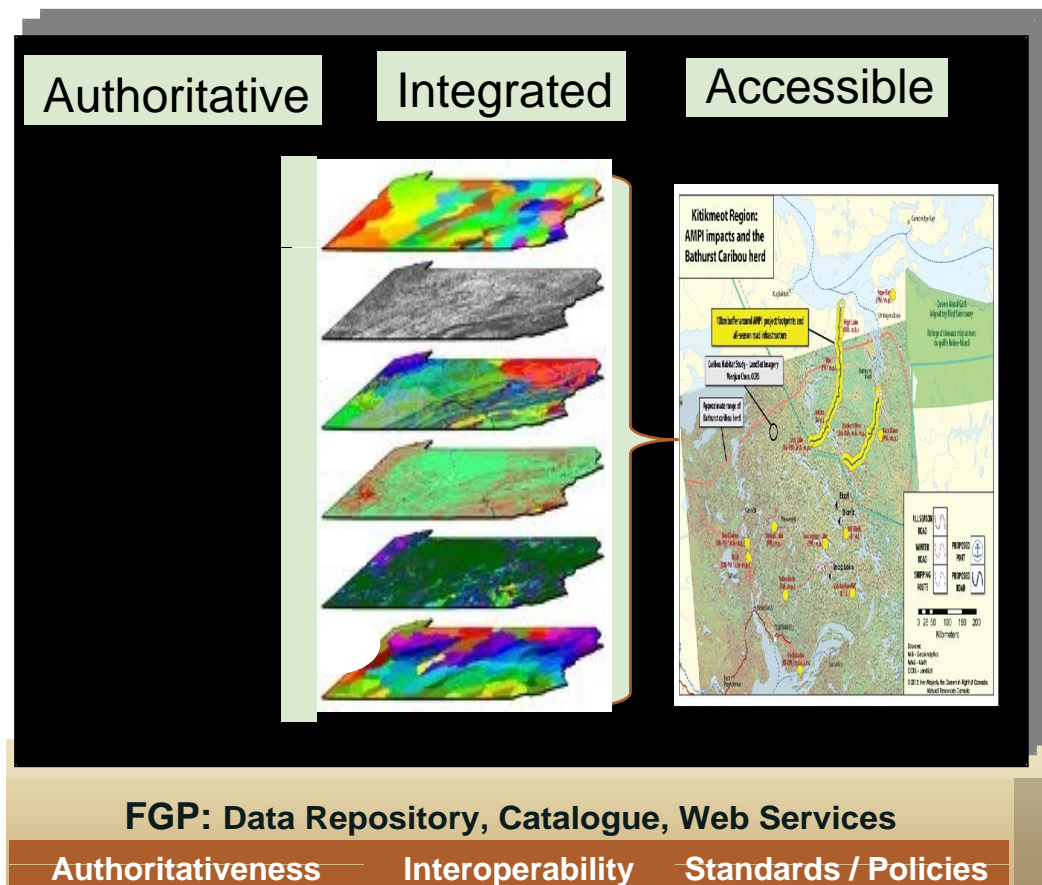
... extracting more value, and finding efficiencies across the Authoritative – Accurate – Accessible (AAA) Geospatial Value Chain



geoSMART solution: Federal Committee on Geomatics and Earth Observation

Building a Government of Canada, enterprise-wide solution – the Federal Geospatial Platform...

- Comprehensive collection and sharing of **authoritative** data
- Common web-based environment enabling data **integration, analysis, and visualization** to support informed decision-making
- Shared governance and management of geospatial assets and tools that are **built once and reused many times**
- Underpinned by operational **standards and policies**



...to support Government of Canada priorities.



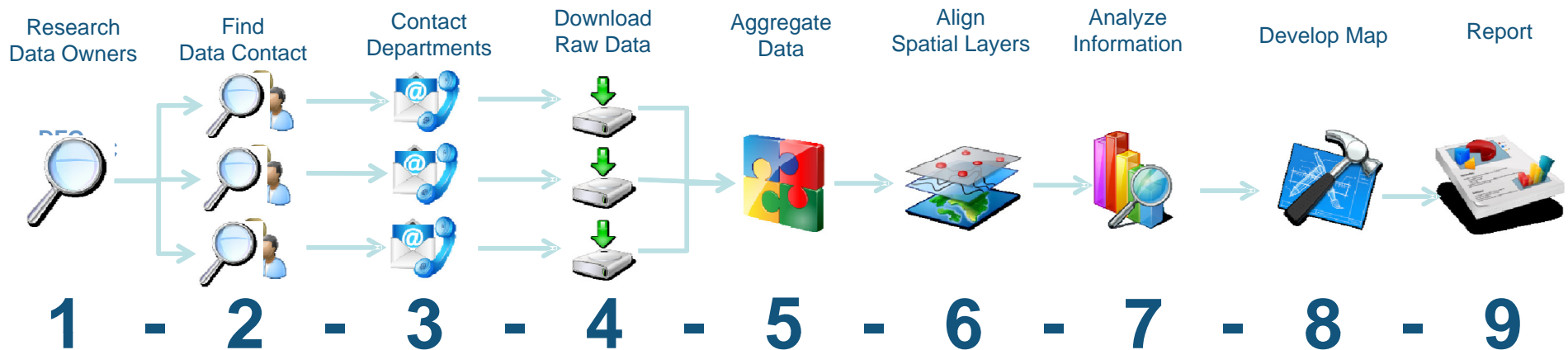
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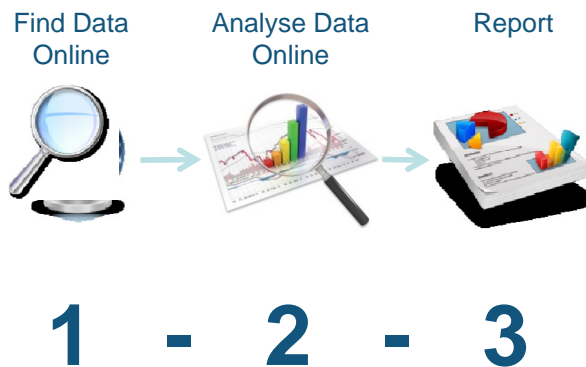
Canada

The FGP will reduce time and effort...

Today, using geospatial data to support decision-making can take weeks to months...



Tomorrow, the FGP will streamline this process down to hours...



- broader access to geospatial information, searching once and finding everything
- faster integration for report generation
- assured quality of authoritative data
- increased access to all through a single window

...moving us towards a modern, tech-enabled organization that manages its data assets more effectively and leverages our significant investments to date



geoSMART solution:

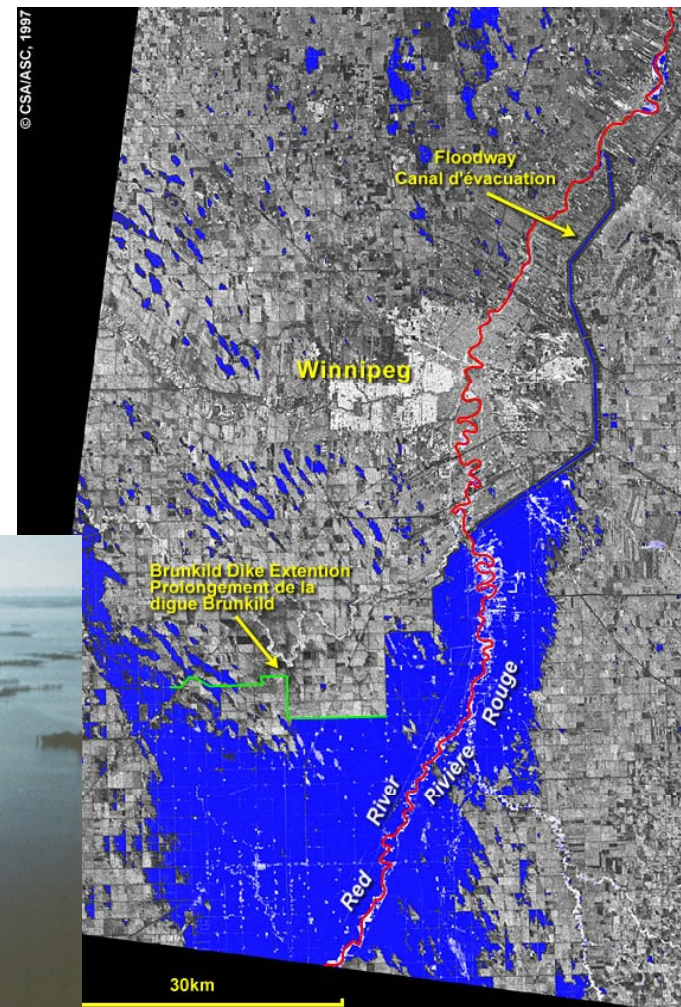
Investment in world class satellite ground station facilities

- 3 satellite stations; 4 antennas - strategically located to provide full coverage of Canada's landmass
- Inuvik Satellite Station Facility is being established in collaboration with stakeholders:
 - EO data for public good
 - commercial opportunities – open for business
 - local economic benefits and capacity building



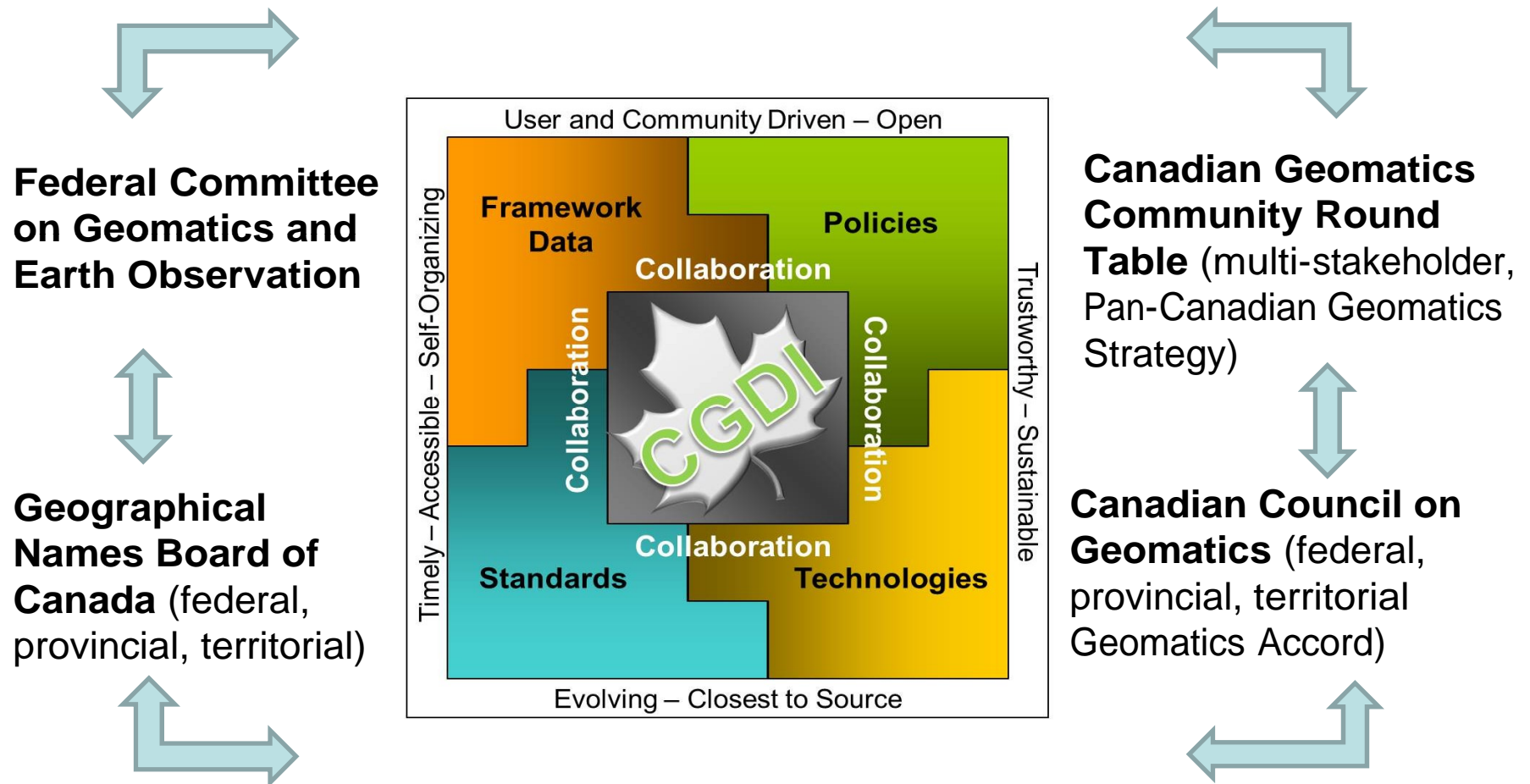
geoSMART solution: Moving science into operations for public service

- NRCan's Emergency Geomatic Services:
 - Near-real time flood mapping in support of emergency response to seasonal flooding in Canada



geoSMART solution:

Continued collaboration and unified direction for a sustainable Canadian Geospatial Data Infrastructure



Now that's **geoSMART**: Open Dialogue for Open Data

- Working collaboratively within the Government of Canada, and with other levels of government, the private sector, academia, and associations to achieve:
 - Horizontal integration of Earth observations and geomatics
 - Vertical integration of data sources to device (satellite to mobile)
 - Efficiencies (build/buy once – use many times)
 - State-of-the-art and sustainable geo-infrastructure
 - Open, “AAA” data for innovation and public good



For more information...

- Government of Canada - Open Government <http://data.gc.ca>
- NRCan Earth Sciences Sector <https://www.nrcan.gc.ca/earth-sciences/>
- Canada's Country Report to the UNRCCA <http://unstats.un.org/unsd/geninfo/RCC/unrcca10.html>
- Pan-Canadian Geomatics Strategy <http://cgcrt.ca>

- Brian Gray, Assistant Deputy Minister, Earth Sciences Sector, Brian.Gray@NRCan-RNCan.gc.ca
- Prashant Shukle, Director General, Canada Centre for Mapping and Earth Observation Prashant.Shukle@NRCan-RNCan.gc.ca



Canada Centre for Mapping and Earth Observation

Centre canadien de cartographie et de l'observation de la Terre