The Academic sector contribution to SDI

Eric Loubier, Director
Natural Resources Canada
Earth Sciences Sector

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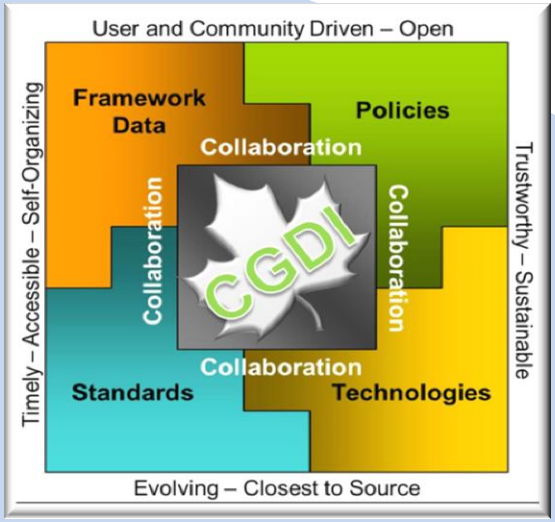
From Satellite to Mobile: Integrating EO and Geomatics into Operations, Reporting and Decision Making

Reception



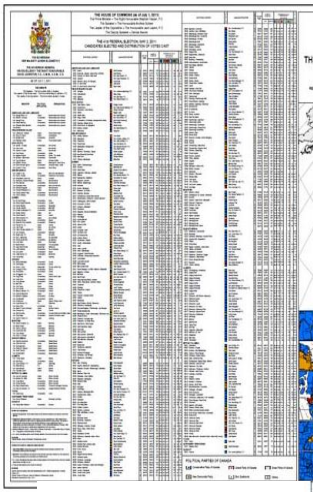
Development

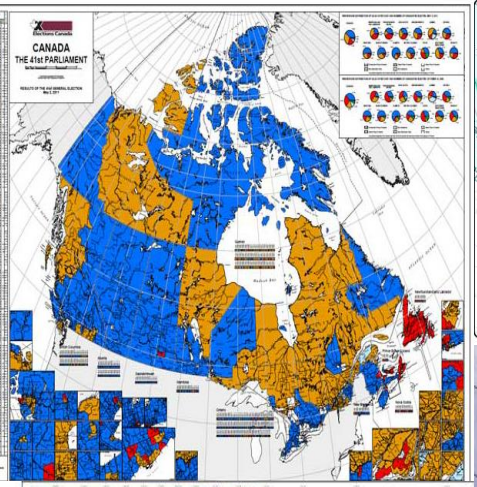
Integration

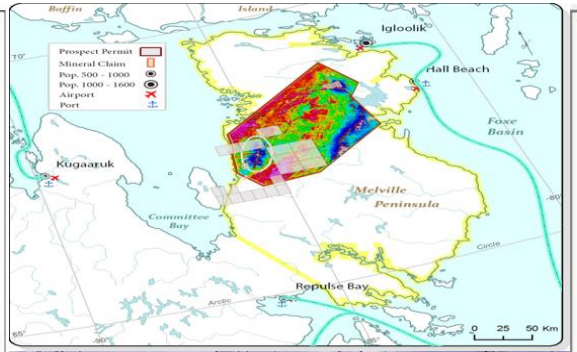
Dissemination

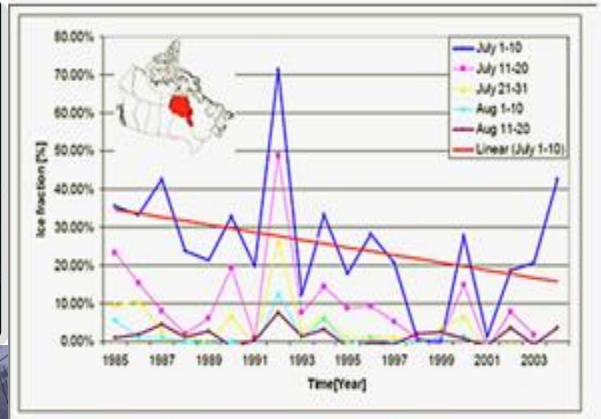

Research
Development
Strategy
Policy
INNOVATION
Standards/Protocols
Highly Qualified Personnel

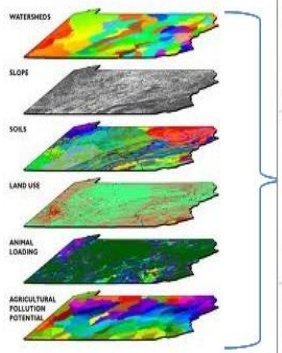
Enhance use of Geospatial information and data…

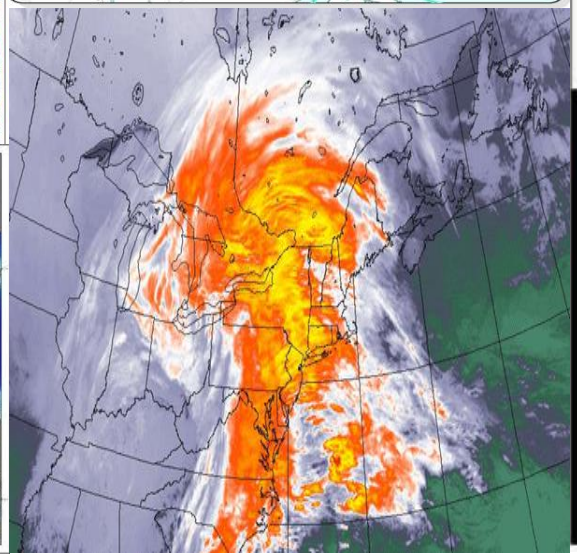


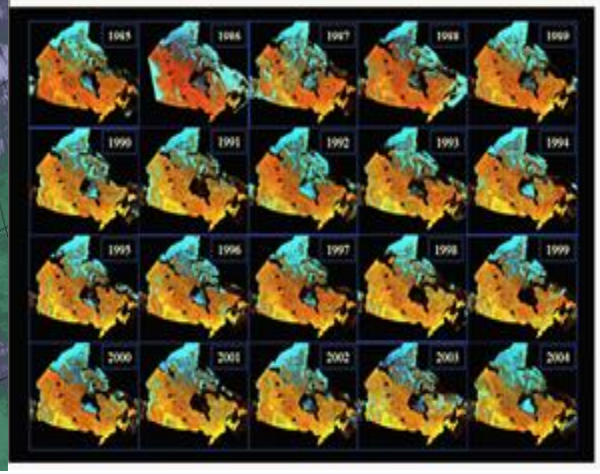










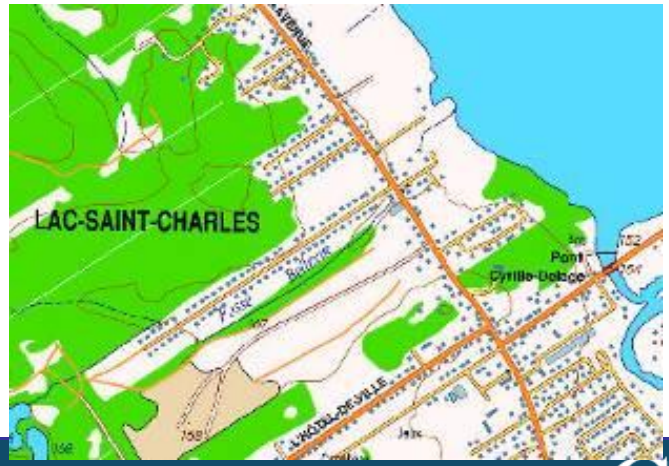


…to support broad national objectives such as social cohesion, economic growth, well-being, and environmental management

Geomatics Internationally .....

- Significant demand on the international market
  - Improving good governance
  - Contributing to poverty reduction

- Response to the requirements of international financial institutions
  - Countries commitment's to increase state revenues
  - Optimized use of natural resources



Lack of technical experts….

- Developing countries have the necessary resources formed at great expense abroad;
- There is significant gap in the training of senior geomatics technicians and professionals;
- Most technical tasks are carried out by over-qualified professionals which limits the scope of projects that can be initiated.

Role of academia …

Provide highly trained personnel

Geomatics Disciplines:

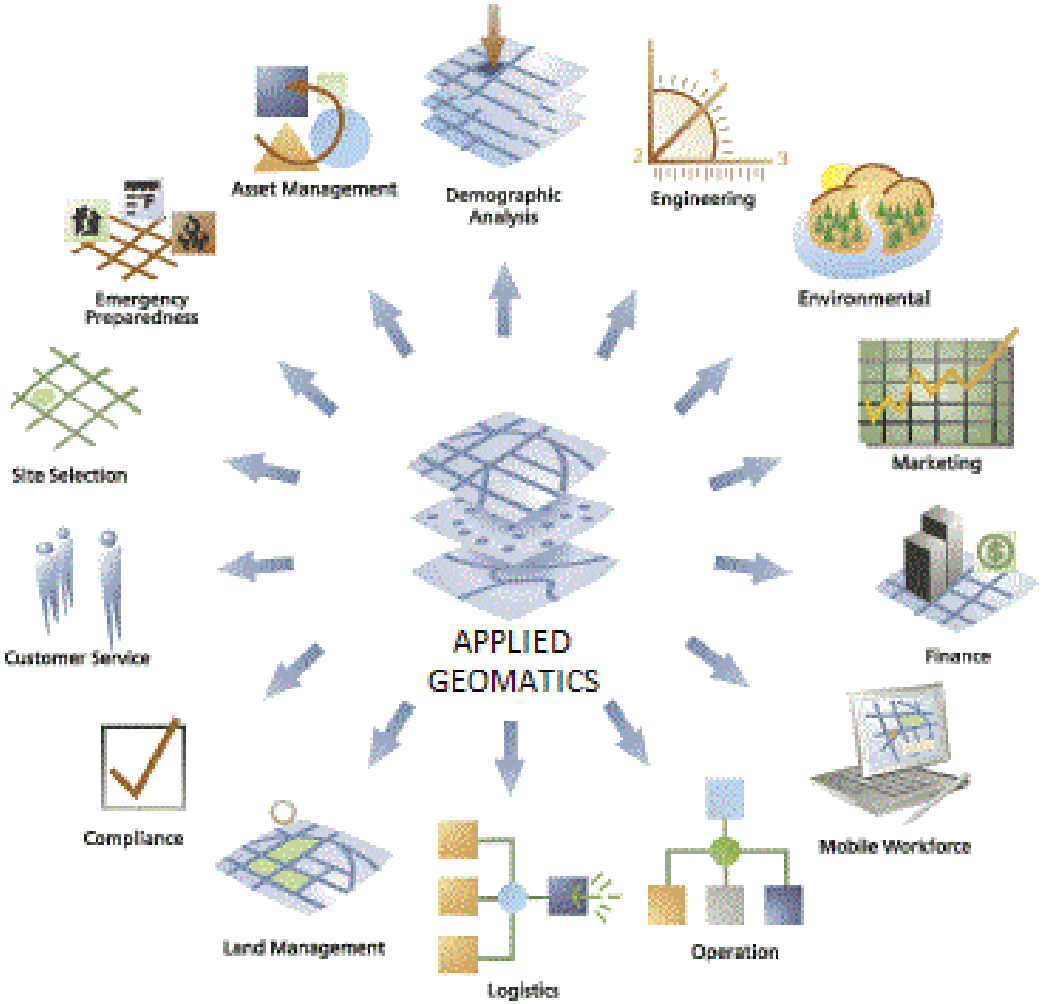
- Geodesy
- Surveying
- Databases
- Geo web services
- Digital mapping
- Photogrammetry
- Remote sensing
- Geographic Information systems

Geomatics:

is a representation of the territory in a digital form (virtual model) that allows decision makers to better know, understand, use, simplify, analyze and manage their environment..

Role of academia …

… Introduce geospatial to other disciplines



Importance of Technical Experts in Geomatics:

- Deep knowledge of the territory (geodesy, cartography)
- Securing all public and private lands (land registry, registration and publicity of land rights)
- Protection and sustainable development of resources (water, soil, forests, mines)
- Response planning and regional planning
- Monitoring of natural phenomena
- Infrastructure management
- Establishment of municipal property tax

Augmenting Academic Sector in Developing Countries

- **Work with a local partner in the development of technical training programs in geomatics;**
- **Develop the programs according to the competency-based approach to meet the needs of local realities;**
- **Program development based on a transposition of tasks and skills;**
- **It is still within the reach of countries to develop technical training programs.**

Competency:

- A skill that gives power to act, succeed and grow;
- Allows to adequately perform tasks or activities;
- Based on knowledge, skills, attitudes and perceptions.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Role of academia …

---------- **Academia** ----------

------- **Public Sector** -------

---------- **Private sector** ----------

Standards: ISO TC211, OGC, Geosemantics/Web 3.0 …

Technology: GIS, Web mapping services, Big Data analytics,…

Policies: Intellectual Property, legal framework, license regime …

Framework Data: New Sensors, EO Calibration-Validation, data extraction algorithms, LiDar, …

AND/OR Open Geospatial Data

- Spurs innovation in both the economic and social spheres
- Governments in developed world recognized in as an important public-policy objective
- Opening government data helped to engage a broader range of actors in solving problems of interest to the government
- Economic welfare is maximized if data is made available at marginal cost or for free

Open Data includes:

- Removing restrictions on use and dissemination;
- Standardizing formats;
- Disseminating works at minimal or no cost
- Improving public use;
- Improving access in the public interest.

Academic Figures in Canada

- 94 universities and colleges offer programs in some aspects of geospatial information studies
- 5 universities offer geomatics engineering degrees
- Recently universities have been working directly with industry to develop market solutions
- Academia provides skilled professionals with knowledge of geospatial skills and techniques
  - (either as the core of its expertise or as a useful adjunct to core skills in other areas of specialization)
- Has the potential to provide academic expertise to developing countries

Questions?

Merci / Thank you

Eric.loubier@Canada.ca