



INNOVATION
EXPLORATION
OBSERVATION
INSPIRATION

Performance Information in Decision-Making at the CSA

Melanie Winzer
Directeur Exécutif

Programmes et planification intégrée

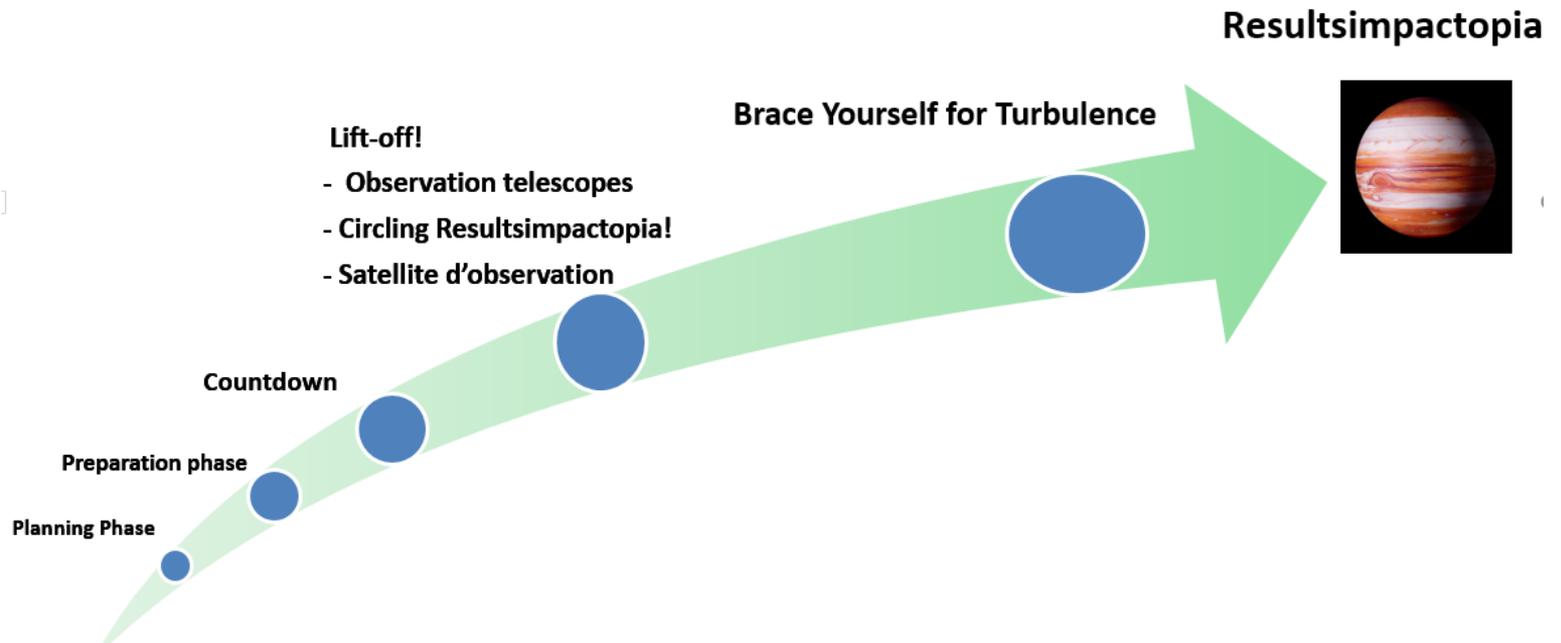


Agence spatiale
canadienne

Canadian Space
Agency

Canada

Planning phase – Resultsimpactopia!



Preparation phase (Where we were)

- Opportunity based decision-making
- TB Subs rarely had performance data
- Basse note au CRG pour l'utilisation des données sur le rendement dans la prise de décision (rarement)
- Capacités internes évolutives en mesure du rendement
- Considered a “feed the best” or “check box” exercise
- ... Mais... nous avons un rêve!

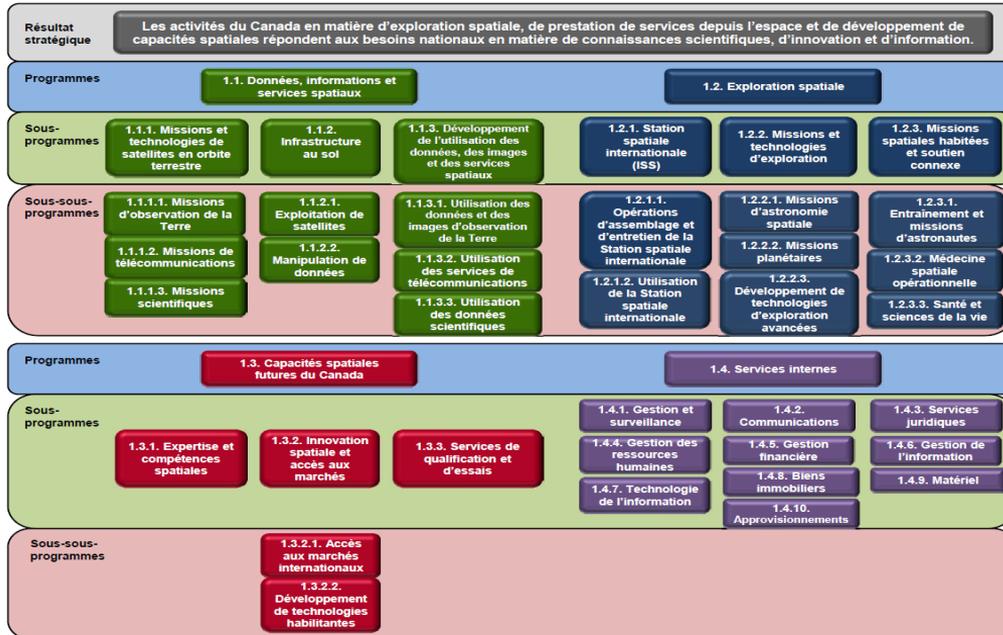


“In the second century of Confederation, the fabric of Canadian society will be held together by strands in space just as strongly as railway and telegraphy held together the scattered provinces in the last century” John H. Chapman

Preparation phase (Then and Now)

Then :

L'architecture d'alignement des programmes (AAP) 2016-2017 de l'Agence spatiale canadienne



Now:





Preparation Phase (CSA Now)

L'ASC concentre ses activités et ressources autour de trois programmes :

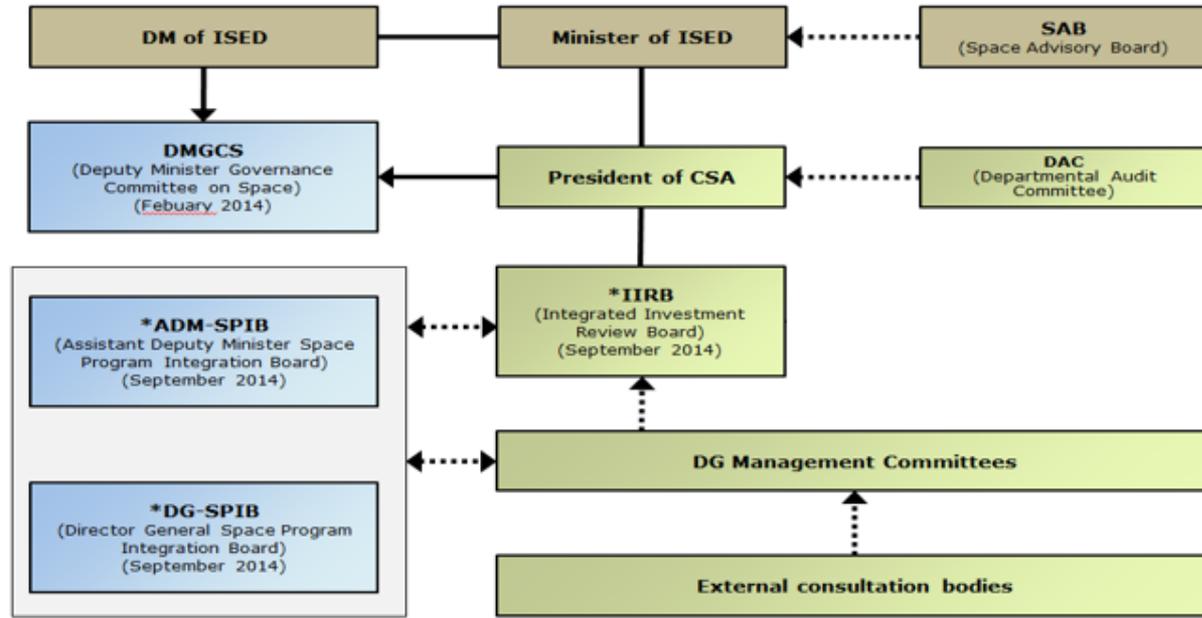
- ❖ Exploration spatiale : Participation aux missions des astronautes, astronomie et étude des planètes, travaux de recherche scientifique dans l'espace (réalisation et soutien)
- ❖ Utilisation de l'espace : Observation de la Terre par satellite et collecte de données spatiales
- ❖ Développement de la capacité spatiale: Développement de technologies et d'applications spatiales novatrices utilisées sur Terre

Preparation (CSA Now)

DRF results	Indicators	Baselines	Targets 2018-19
R1 - Space research and development advances science and technology	In. 1 - Business Expenditures in Research and Development in the space sector	\$195M	\$195M
	(NEW) In. 2 - Canada's rank among Organization for Economic Co-operation and Development nations on the citation score of space-related publications	11	11
R2 - Canadians engage with space	(NEW) In. 1 - Number of new people and organizations entering space related fields as a result of Canadian Space Agency funding	TBD	TBD
	(NEW) In. 2 - Number of engagements on social media related to the Canadian Space Agency	2,351,059	1 000 000
R3 - Space information and technologies improve the lives of Canadians	(NEW) In. 1 - Number of services offered to Canadians dependent on Canadian Space Agency information (such as remote sensing data, including satellite imagery and science observations)	84	85
	(NEW) In. 2 - Number of Canadian space technologies adapted for use on earth or re-use in space	7	7
R4 - Canada's investments in space benefit the Canadian economy	In. 1 - Number of highly qualified people in the Canadian space sector	4,264 HQP	4250 HQP
	In. 2 - Value of export of the Canadian space sector	\$1.6 billion	\$1.6 billion

Preparation Phase (CSA Now)

CSA investment governance structure



— Report —> Co-chair -.-> Advice

*= Improvement and/or new elements post Investment Plan 2014-15 to 2018-19

Countdown!

3 – CSA Targeted Areas for Improvement

2 - Policy on Results Impact

1 – Upgrade Project Management

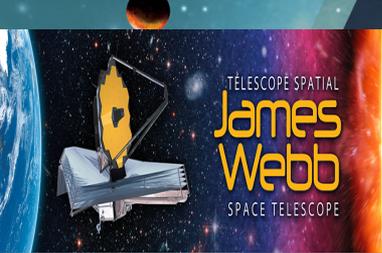


Lift Off!

In October 2017, CSA renewed its governance and requirements to align with the Policy on Results

- All items proposed at IIRB require:
 - past performance
 - strategic alignment
 - expected results
 - relevant findings
 - evaluation findings or reviews of the program
- Each Program has a Steering Committee which discusses strategic direction and policy guidance for projects and initiatives
- MAF has gone from “Rarely” to “Always” for performance measurement in decision-making





Observation Telescopes For Data

Tools in use currently:

- Surveys of the Space Sector and Principal Investigators stored in internal oracle databases
- Ad hoc surveys for exploration of new measures
 - Return on investment and commercialization
 - New people entering the space field
- Contracts for improved citation monitoring
 - Average Relative Citation
 - Altmetrics

Issues Identified with data:

- Robust data is sometimes difficult
- Methodologies for the same data point vary across the organization
- Direct linkages between the data and PIPs is unclear



Circling Resultsimpactopia!

- Gate 3 decision program data provided:

PIP Indicator	Investment Intended Result	PIP Target
Talent Pool is improved or maintained	Maintain 39 HQP	100 HQP
Canadian Space Sector is better positioned to seize opportunities	1 demonstration opportunity to better position Canadian space	8

- Link to the DRF:
 - Canada's investments in space benefit the Canadian Economy



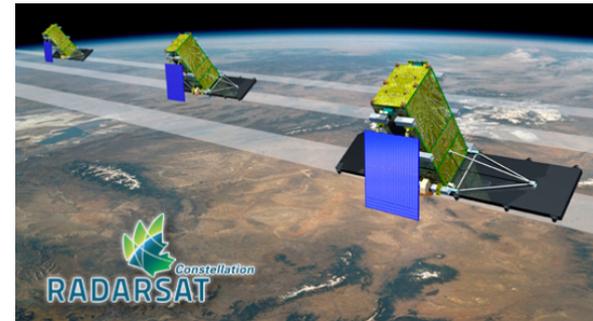
Circling Results impactopia!

- Renewal of grant program for undergraduates - data from 13 previous rounds of funding was provided:
 - 105 Canadian undergraduate students (~27% female)
 - 77% completing, applied to, or intend to apply to graduate programs
 - 40% working in, applied, or intend to apply to the aerospace industry
- Targets (over 5 years):
 - 100 undergraduate students trained in “rocket science”
 - 20 industrial internships
- Link to the DRF:
 - Canadians engage with space – New people brought into the Space Sector

Satellite d'observation

Des satellites d'observation sont actuellement en train de regarder de nouvelles façons créatives de démontrer l'impact du travail de l'Agence pour les Canadiens!

- Improve tracking of GBA+
- Go beyond quantitative data to demonstrate more the quality of the impacts
- Demonstrate social benefits of investments in space



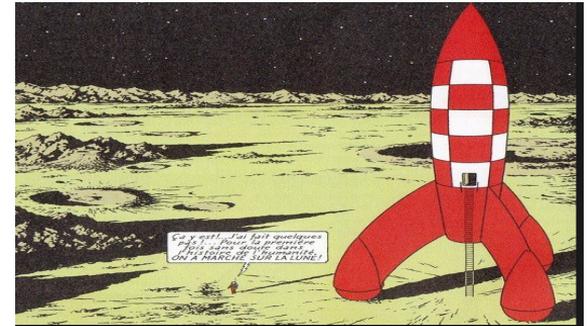
Brace Yourself for Turbulence...

Before landing... some challenges:

- Transcending project-level decision-making
- Making decisions based on Canadians
- Including more GBA+
- Incorporating the findings of evaluations

Pistes de solution :

- Utilisation d'indicateurs qualitatifs et quantitatifs
- Don't be alone in space: Find allies and involve a broad set of partners
- Standardize methodologies across programs and push cultural change



Results impactopia!



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