Data Governance Journey User Guide

TOWARDS A MORE RESPONSIBLE, EFFECTIVE, AND COLLABORATIVE DATA GOVERNANCE

YOU WILL FIND...

What data governance is and why it's relevant to you

Presentation of the **data governance journey**

Presentation of the tools that accompany it, when and how to use them

- **Data governance framework**
- **Decision diagram of a data use case**
- **Self-assessment tool**

The separate appendix document presents the methodology, **glossary** and bibliography

VERSION

Version 1.0, January 2022

Montréal en commun

NordOuvert

WORKING DOCUMENT

The Data Governance Journey User Guide is a complementary document to the tools developed by the Data Governance Workstream of Montréal in common. To learn more about our work, we invite you to consult the Data Governance Workstream.

Links to other data governance tools

- Data Governance Journey User Guide
- Data Governance Framework
- Decision diagram of a data use case (in FR)
- Data Governance Self-Assessment Tool (in FR)
- Appendix (in FR)

Working document: This tool is a working document. This means two things: 1) it is an intermediate version, in this case the first one, and 2) we are counting on your constructive feedback to improve the tool for the next version. Any comments? An idea? Please send them to us by filling in this form.

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Consistent data governance for the common good

DATA GOVERNANCE IS ESSENTIAL FOR VALUABLE DATA

In our age of massive data, the combination of the proliferation of data sensors around us and the low costs of data storage and computation explain the sheer volume and variety of data being created.

However, this data alone is inert and has only potential value. It is only the decisions made about the data that generate this value. At the same time, the harms that can result from careless use of data are now well documented (e.g. invasion of privacy, loss of autonomy, bias and discrimination) and their consequences on individuals and communities are real.[1]

This is where data governance comes in. It encompasses **all the factors that influence data decisions** (e.g. whether to acquire the data; whether to consider the differentiated needs of the population, involving them directly or not; choosing the techniques and technologies for collection, storage, processing and analysis, use[2]). However, for an organization or partnership to realize the value sought in data, to make explicit the decisions and factors that influence them, consistent data governance is essential.

Solutions adapted to the context

In practice, decisions are frequently made, often implicitly, by **multiple stakeholders** who place **different values** on data (e.g. monetization, privacy, informing on a specific issue, demonstrating impact...), while other relevant stakeholders are structurally underrepresented in decision-making. Moreover, **several scales of action** intersect: individual, intra- and inter-organizational, and ecosystem. Finally, there are a **multitude of factors influencing data decisions.**

There are no possible turnkey solutions. **Data governance is therefore built over the course of the decisions taken in a specific context**[3]. For example, the values sought influence the way in which the data is constructed from the start. They guide the choice of elements that are represented as data (and those that are not). Data can be used to innovate, prioritize ever-limited resources, support decision-making and continuously improve it, provided it is governed responsibly, efficiently and collaboratively.

[1] Paraphrased from the Open North report: Gagnon-Turcotte, Sculthorp, Coutts (2021) Digital Data Partnerships
[2] Other examples of data-related decisions include: Defining the purpose of data: e.g. to innovate, fulfill a legal or contractual obligation, demonstrate impact, or make informed decisions; Excluding certain types of reuse; Strengthening digital and data literacy of data subjects.
[3] To go further, read the article: "On a toutes et tous un rôle à jouer dans la gouvernance des données".

DATA GOVERNANCE THAT CULTIVATES THE COMMON GOOD

The COVID-19 pandemic has highlighted many systemic inequalities, particularly with regard to the digital divide. As such, the City of Montréal's 2030 Recovery Plan sets out a vision for a more resilient, green and inclusive city.

The Montréal Digital Data Charter as a starting point

Initially designed for internal use by the City[4], the City of Montréal's Digital Data Charter covers almost all the issues involved in responsible data governance in 2022. For this reason, Open North chose it as a starting point and is working to operationalize its principles, while exercising a critical eye with regard to their interpretation.

The Charter helps guide the development of data governance that ensures the primacy of the public interest and the common good (i.e. the value sought in data), while recognizing and respecting other individual and collective rights.

Montréal in Common: an incubator for projects

Montréal in Common[5] is a local, multi-sectoral innovation community that experiments and develops solutions to the issues of sustainable mobility and access to food in Montréal. This urban innovation program explicitly focuses on the collection, sharing and valorization of data. The partners of Montréal in Common have a collective vision: to use data for the common good and to respect the 13 principles of the City of Montréal's Digital Data Charter in order to support the social inclusion and ecological transition movements.

DATA GOVERNANCE IS FOR YOU IF...

... you are an organization with a mission

- You have the curiosity to explore the value of data to better understand the beneficiaries of your services or users of your products and improve your offering, to help you demonstrate impact, make informed decisions to ensure better economic social equity and drive innovation.
- And most importantly, you want to do it responsibly and effectively.

... you participate in a technology platform project

- Your priority is likely to be the adoption of this platform. Being able to demonstrate responsible and ethical use of data will be critical.

[4] In addition, an invitation was extended to the Montreal Urban Innovation Lab's partners in the public sphere to help the Montréal community better govern this data.
[5] The Montréal in Common projects are being implemented thanks to the $50 million prize awarded to the City of Montréal by the Government of Canada as part of the Smart Cities Challenge.

... you are thinking of collaborating with organizations to compare, share or enrich data

- It will be critical to define your common purpose for the collaboration and agree on a shared understanding of data governance. Over time, you will build your shared data governance decision by decision. The more effective, responsible, and collaborative it is, the better you will be able to achieve your goal.

In all three cases, **you need actionable data**. In other words, you need

- to be able to access the required information quickly in spite of the diversity of the formats and types of data;
- quickly determine if they are of sufficient quality for the desired use;
- Know the context and limitations of the data to ensure proper interpretation and use.

Data governance: more than just legal compliance

Cultivating data governance for the common good is both a dynamic process that is inexhaustible and highly accessible by all.

In short, sowing the seeds today, one decision at a time, and caring for them regularly will allow you to reap the fruits of your efforts:

- ensure legal and contractual compliance;
- build trust with the stakeholders affected by your decisions;
- ensure the reliability of the data sets, including a clear understanding of their context and limitations
- contribute to the spread of digital practices in line with the ideals of socio-ecological transition;
- Improve your operational efficiency and free up your time and money for what matters most to you, namely achieving your vision, in line with your values and that of a fairer society.

The data governance journey and its tools

OBJECTIVES OF THE JOURNEY

The organization is committed to making decisions about the data it governs that ...

...are thoughtful, serious and consider the consequences of these decisions.	***RESPONSIBLE***
...lead to useful results and achieve objectives.	***EFFECTIVE***
...improve continually thanks to the sharing of knowledge and learning.	***COLLABORATIVE***

THE DATA GOVERNANCE JOURNEY

Reason for being

The Data Governance Journey aims to support organizations in **progressively operationalizing the principles of the** City of Montréal's Digital Data Charter.

Since the Charter can be interpreted in different ways, it is necessary to establish, within Montréal in Common, a **collective understanding of the principles** adapted to the context of the innovation community and the diverse needs and realities of its partners and projects.

It is also important to understand how to operationalize these principles, i.e. to translate them into concrete actions: **tactics**.

Key features of the journey

Data governance is not a destination. It emerges from the decisions that shape it. That is why Open North and the City of Montréal are advocating for a data governance journey for Montréal in Common that can be characterized as follows.

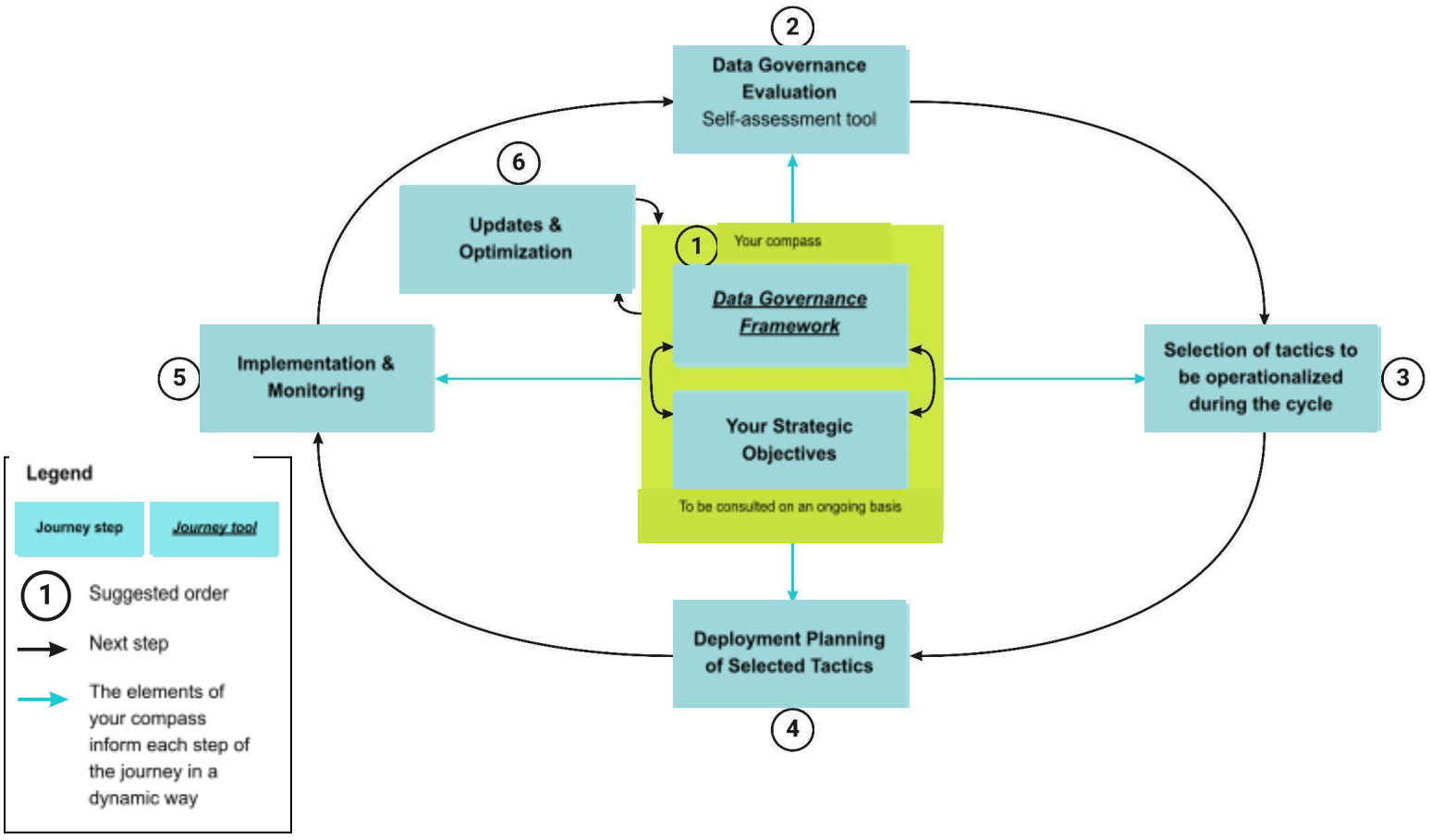
The need to adapt your data governance to the continuously changing needs, data, laws and regulations, technologies and techniques, and your stakeholders.	***EVOLUTIONARY***
The need to give yourself the right to try, to learn to improve continuously with an agile approach composed of short cycles of experimentation, implementation and evaluation.	***ITERATIVE***

The need to be able to implement tactics **gradually, at your own pace, according to your priorities and capacities**. The key is to be seriously committed to the process.	***FLEXIBLE***
The basic tactics of the data governance framework are **all accessible** and **ambitious**. The long-term goal is that you have the ability, motivation, and ambition to adopt more advanced tactics.	***REALISTIC, BUT AMBITIOUS***

Diagram of a data governance journey cycle

Thus, we suggest that any organization that wants to improve its data governance do so incrementally, through cycles. Below is a suggested cycle of the data governance journey (Figure 1).

Figure 1: Diagram of a data governance journey cycle and its legend



Support throughout this process

You are responsible for your data governance practices and for meeting the expectations of the City of Montréal. However, Open North will be there to help you along the way.

For this purpose, Open North has co-developed, with the City of Montréal, a first version of tools that will be available in January 2022. Subsequently, the capacity-building program will be an opportunity for you to assimilate these tools, to contribute to their improvement and to share your questions and learning with the innovation community. Targeted coaching around concrete issues will be offered to a few partners at a time.

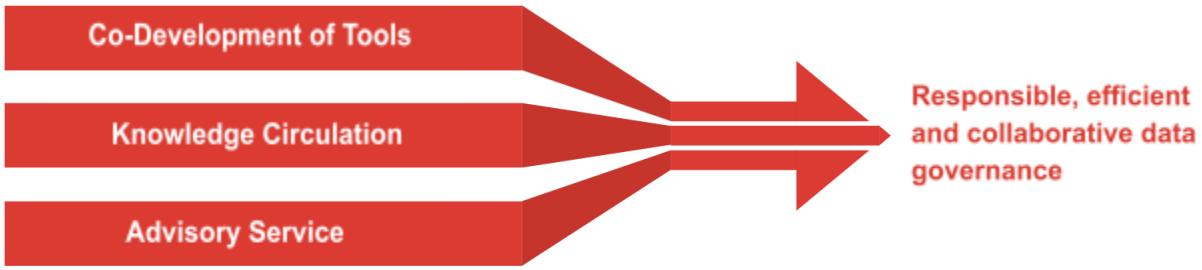


Figure 2: Support offered by Open North to Montréal in Common partners

Tools

For now, the tools developed by Open North and the City of Montréal support steps 1, 2 and 3 presented in the data governance journey diagram (Figure 1).

THE DATA GOVERNANCE FRAMEWORK

Objectives

In line with your strategic objectives, the Montréal in Common Data Governance Framework is the compass that will guide you on an ongoing basis towards more responsible, effective, and collaborative data governance that respects the Charter Principles.

It is your reference for:

- **Understanding the Charter principles**, adapted to the context of Montréal in Common, the reasons why you should operationalize them and the connections (tensions, synergies, and requirements) between them.

- **Determining** concrete actions (tactics) to operationalize these principles.
    - Differentiate between fundamental, operational tactics and those that may be conditional;
    - Understand which Charter Principles the tactics pertaining to a theme are associated with;
    - Understand when tactics (pertaining to a theme) apply in the digital data life cycle;
    - Be aware of certain favorable conditions[6] that support a consistent and sustainable implementation of the tactics pertaining to a theme;
    - Discover the results and benefits that can come from facilitating tactics within a theme;
    - Obtain, as a complement to the tactics and as a starting point, useful resources and information that will allow you to better understand the tactics and better equip you for their implementation.

When to use it

At the beginning of your data governance journey, and then as many times as needed.

DECISION DIAGRAM OF A DATA USE CASE

Objectives

This tool is complementary to the framework. It is intended to help you ask the right questions for each phase of a data use case[7] . The operational tactics in the framework make up the stages of the use case. Added to this are decision points. Since the focus here is on a particular use case, the fundamental tactics do not appear, but will support the implementation.

When to use it

For any new data use case or to review and improve your processes for an existing data use case. You can also refer to it as many times as needed to better understand the operational tactics.

The tactics documented in the framework will evolve from new learning arising from the community of practice as well as the program's data governance-related capacity-building program that will begin in early 2022. The tactics will also adapt, as needed, to the continuously changing legal, technical, technological, and social factors influencing data governance in the ecosystem.

[6] For the moment, the favorable conditions are hypotheses that we will try to validate in practice with the partners.
[7] **Data use case**: This is a way of using data that has value or utility for the stakeholders involved. A data use case corresponds to a well-defined problem, in a specific context, as well as a set of actions carried out by the actors and data stakeholders involved in order to achieve an objective, a purpose.

THE DATA GOVERNANCE SELF-ASSESSMENT TOOL

Objective

The main purpose of the self-assessment tool is to allow you to track and evaluate your progress in implementing the tactics of the data governance framework, whether for an organization or a digital data partnership.

The first version of the tool takes the form of a questionnaire. Once the questionnaire is completed, you will be able to save your answers. If you wish, Open North can also send you, within 1 to 2 weeks, a report detailing the results of your self-assessment.

In addition, this tool allows you to...

- engage and motivate your colleagues, organization or partnership to engage in a discussion about data governance issues and your data culture. Note that multiple people within an organization or partnership can take the survey and share the results with each other to compare the different perspectives that may exist;
- shed light on your priority data governance needs and blind spots in order to develop a practical action plan to improve your data governance;
- make your data governance responsible, both at the intra- and inter-organizational levels (e.g. meeting the expectations of the City of Montréal or of a digital data partnership)

When to use it

After familiarizing yourself with this user guide and the data governance framework, to assess your initial situation, prior to implementing the tactics.

This initial outcome will allow you to prioritize your data governance needs and initiate important intra- or inter-organizational discussions about your data culture.

Following this initial assessment, you can use the self-assessment tool as many times as needed to monitor and evaluate your progress, gain alternative perspectives from your colleagues, and support potential accountability about your data governance to your stakeholders.

Acknowledgements

The design and development of the tools that support the Montréal in Common data governance journey were made possible through the collaboration and contributions of many individuals and organizations to whom Open North is grateful.

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We would also like to warmly thank the Montréal in Common partners for their willingness to respond to the questionnaire and participate in follow-up interviews so that Open North can better understand their data governance realities and needs. Although the partners are very busy with their respective projects, this willingness to take time to contribute to the data governance project is a great testament to the collaborative spirit of this innovation community. We would especially like to thank Jalon and the Agence de mobilité durable who have generously given their time each month to provide feedback loops to improve our tools.

We also benefited from the expertise of several professionals operating in the data field who provided advice and shared their knowledge. These experts are Jacques Priol and Aurélie Legrand (CIVITEO), Viêt Cao (Synapse C), Jean-Noé Landry (former Executive Director of Open North), Nicolas Merveille (UQAM), Sian Baker (Data Orchard), Amanda Clarke (Carleton University) and Daria Marchenko (Ecoist club).

Finally, a big thank you to the entire Open North team who, through numerous debates, discussions, and internal sharing of resources and knowledge, helped shape the scope of the Montréal in Common data governance project.

Sincerely,

The Montréal in Common data governance team: Samuel Kohn, Lauriane Gorce, Marie Plamondon, Karine Saboui, Steve Coutts, Dominique Camps, Lucas Mesquita and Alexandre Cailhier.