

# WANTED: DATA STEWARDS

(RE-)DEFINING THE ROLES AND  
RESPONSIBILITIES OF DATA STEWARDS  
FOR AN AGE OF DATA COLLABORATION

March 2020



# (RE-)DEFINING THE ROLES AND RESPONSIBILITIES OF DATA STEWARDS FOR AN AGE OF DATA COLLABORATION

## ACKNOWLEDGEMENTS

This paper is based upon an [earlier article](#) authored by Stefaan G. Verhulst. It has been extended as to inform the on-going exploration of how to increase data collaboration in a more systematic, sustainable and responsible manner—especially following the recommendation made by the Expert Group to the European Commission on Business-to-Government Data Sharing to create and promote data stewards in the public and private sectors and to establish a community of practice convening these data stewards. This paper was finalized by Stefaan G. Verhulst, Andrew J. Zahuranec, Andrew Young, and Michelle Winowatan of The GovLab based upon input from a wide variety of actors and organizations

The GovLab would like to thank all of the individuals who have reviewed the [earlier article and draft](#), provided input and turned it into this position paper.

In particular, we would like to acknowledge:

- ▶ Nuria Oliver, Juan Murillo Arias, Richard Benjamins, Helena Koning, Ioana Stoenescu, Virpi Stenman, Zisis Dimitris, Milan Petkovic, and Linda Austere—members of the European Commission’s Business-to Government Data Sharing Expert Group who have joined the Scoping Group to act upon our [Pledge](#) to define the contours, needs, feasibility, and design features of a B2G Data Stewards Network (see Appendix 2);
- ▶ The participants of the Rockefeller Foundation Month of AI Convening at the Bellagio Center during the month of October 2019; and
- ▶ Finally, we obtained invaluable input from the participants to several [Data Stewards Camps](#) held by The GovLab in San Francisco, Cape Town, and London, as well as other events and workshops held over the course of a two-year project on data stewardship funded by the Hewlett Foundation.



## STEWARDSHIP

**NOUN**

*stew-ard-ship* | | 'stü-ərd-,ship

- 1: the office, duties, and obligations of a steward
- 2: the conducting, supervising, or managing of something, especially the careful and responsible management of something entrusted to one's care

## DATA STEWARDSHIP

**NOUN**

*da-ta stew-ard-ship* | | dā-tə'stü-ərd-,ship

- 1: the roles, functions and responsibilities of a [data steward](#)
- 2: the systematic, sustainable and responsible management of data for public benefit

## TABLE OF CONTENTS

(Re-)Defining the Roles and Responsibilities of Data Stewards for An Age of Data Collaboration	1
Data Stewardship at A Glance	4
Why is a Re-Defined Notion of Data Stewards Important?	6
The Roles and Responsibilities of Data Stewards	8
2.1. The Three Responsibilities of Data Stewards	9
2.2. Five Roles of Data Stewards Toward Achieving These Responsibilities	10
Conclusion and Next Steps: Toward a Network of Data Stewards	15
Appendix 1: Related Organizational Roles and Positions	17
Appendix 2: Pledge to explore the creation of Data Stewards Network	23

## LIST OF FIGURES

Figure 1: The Three Responsibilities of Data Stewards	9
Figure 2: Criteria Data Stewards can Use to Determine What to Prioritize	11
Figure 3: The Five Roles of a Chief Data Steward	12
Figure 4: Data Stewart Roles across the Data Lifecycle	14



**WHY THIS PAPER?** This paper is meant to inform the on-going exploration of how to enable systematic, sustainable, and responsible re-use of data through cross-sector data collaboration in the public interest (often called Data for Good). Data stewards build trust between organizations, agilely creating relationships between leaders from different sectors and backgrounds.

Specifically, the position paper seeks to outline the roles and responsibilities of the emergent data steward profession. It is intended to support data-holding businesses and public institutions to create and promote data stewards in the public and private sectors; and to establish a network of these data stewards—as recently recommended by the High Level Expert Group to the European Commission on Business-to-Government Data Sharing.

**WHO ARE DATA STEWARDS?** Data Stewards are organizational leaders or teams empowered to create public value by re-using their organization’s data (and data expertise); identifying opportunities for productive cross-sector collaboration and responding pro-actively to external requests for functional access to data, insights or expertise. They are active in both the public and private sector, promoting trust within and outside their organization.

**WHY RE-DEFINE THE TERM?** The term “data steward” was mainly used until now in a limited and narrow context of internal data governance and management, with strong technical connotation.

Below, we call for a re-definition of the term to encompass a broader set of functions and stewardship responsibilities directed at leveraging data assets toward addressing societal challenges and improving people’s lives. Given the increased call by society for data responsibility, including the responsibility to provide social impact, there is a need to re-define the roles and responsibilities of a data steward beyond technical data management. We need to establish an expanded function for responsibly initiating data collaboratives and aligning all stakeholders around the objectives of the data collaboration in a quick, agile manner.

**WHAT ARE DATA COLLABORATIVES?** Data collaboratives are a new form of partnership, in which data and expertise of one or more actors (such as data collected by corporations or administrative data) is made accessible for analysis and/or use by one or more external parties (including policymakers, governments, civil society, academics or statistical offices) working in the public interest.



**WHY DOES DATA STEWARDSHIP MATTER?** Data collaboratives are most successful when individuals or teams within data-holding organizations are empowered to proactively initiate, facilitate and coordinate data collaboratives toward the public interest. Data stewards are essential to make data collaboration more systematic, sustainable, and responsible.

**WHAT DID THE HIGH-LEVEL EXPERT GROUP TO THE EUROPEAN COMMISSION RECOMMEND?** In its [final report](#), the Expert Group on Business-to-Government (B2G) Data Sharing stated that:

*“A key success factor in setting up sustainable and responsible B2G partnerships is the existence, within both public- and private-sector organisations, of individuals or teams that are empowered to proactively initiate, facilitate and coordinate B2G data sharing when necessary. As such, ‘data stewards’ should become a recognised function.”*

**WHAT ARE DATA STEWARDS’ RESPONSIBILITIES?** Data stewards’ three core responsibilities are to:

- ▶ Collaborate: engaging with external parties to help unlock the inherent value of data (and data expertise) when a clear use case exists;
- ▶ Protect: managing data responsibly and preventing harms to data subjects and other stakeholders, and;
- ▶ Act: ensuring relevant parties act upon the insights generated through functional access to data.

**WHAT ROLES DO DATA STEWARDS SERVE?** Data stewards play five critical roles as part of their responsibilities. This work includes:

- ▶ Identifying partners, key questions and engaging with the community;
- ▶ Coordinating and engaging with company staff;
- ▶ Conducting data audits, promoting data ethics, and assessing value and risk;
- ▶ Disseminating and communicating findings to outside parties; and
- ▶ Nurturing data collaboratives to ensure their long-term sustainability.

# 1

## WHY IS A RE-DEFINED NOTION OF DATA STEWARDS IMPORTANT?

### KEY TAKEAWAYS:

- ▶ **DATA COLLABORATION** is a new form of partnership in which data of one or more actors (such as private sector data) is made accessible for analysis and use by one or more external parties (such as academics or statistical offices). These relationships use previously siloed data to advance the social good.
- ▶ Successful data collaboratives rely on **DATA STEWARDS**—individuals or teams within data-holding organizations who are empowered to proactively initiative, facilitate, and coordinate data collaboratives toward the public interest.
- ▶ Despite evidence of the value of data stewards, confusion exists about what data stewards can and should do, where they should reside in an organizational hierarchy, and how they relate to positions such as chief privacy, chief data or chief security officers. This document seeks to address that confusion, and calls for a re-definition of data stewards.

As data grows increasingly prevalent in our economy, it is increasingly clear, too, that tremendous societal value can be derived from reusing and combining previously separate datasets. One avenue that holds particular promise is to promote the emerging structure of [data collaboratives](#). Data collaboratives are a new form of partnership in which privately held data (e.g. data owned by corporations) is made accessible for analysis and use by external parties (e.g. academics or statistical offices) working in the public interest. By bringing together a wide range of inter-sectoral expertise to bear on the data, collaboration can result in new insights and innovations, and can help unlock the public good potential of previously siloed data.

There are several instances of successful data collaboratives around the world. However, not all data collaboratives result in genuinely positive social transformation, and it's important to understand what factors contribute to success. In our observation, success can depend, for instance, on the degree of trust between collaborating parties; whether a problem statement has been clearly articulated; whether a data recipient organization possesses the requisite technical capacity to handle the data; and whether the data itself is accessible and of acceptable and usable quality (e.g. being free of errors, bias and inconsistencies). Success also depends on the ability of organizations to work with and trust one another, to build bonds and know who to talk to. Often, forming durable relationships can be hard.

Based on [research and analysis](#) of hundreds of data collaboratives, one factor seems to stand out as determinative of success above all others—whether there exist individuals or teams within data-holding organizations who are empowered to proactively initiate, facilitate and coordinate data collaboratives toward the public interest. We call these individuals and teams “[data stewards](#).”

Several companies have recently put into place data steward roles (though they don’t always use that title). The teams or individuals occupying these roles have the requisite expertise and authority to recognize opportunities for productive collaborations and to respond to external requests for data. They systematize the process of partnering, and help scale efforts when there are fledgling signs of success. Data stewards are essential for accelerating the re-use of data in the public interest by providing functional access, and more generally, to unlock the potential of our data age. Data stewards form an important—and new—link in the data value chain.

Other actors agree with this sentiment as well. In its [final report](#), the European Commission’s High-Level Expert Group on Business-to-Government (B2G) Data Sharing noted the need for data stewards to enable responsible, accountable data sharing for the public interest. In their report, they write:

“A key success factor in setting up sustainable and responsible B2G partnerships is the existence, within both public- and private-sector organisations, of individuals or teams that are empowered to proactively initiate, facilitate and coordinate B2G data sharing when necessary. As such, ‘data stewards’ should become a recognised function.”

The report goes on further to acknowledge the need to scope, design, and establish a network or a community of practice around data stewardship.

In part, this document seeks to begin that work. In the interest of establishing a community of practice, it tackles questions regarding the profile and potential of data stewards. It aims to provide an operational roadmap to support the implementation (or expansion) of data stewardship functions in public- and private-sector entities.

Moreover, it addresses the tendency to conflate the roles of data stewards with those of individuals or groups who might better be described as chief privacy, chief data or chief security officers. This slippage is perhaps understandable, but our notion of the role is somewhat broader. While data management, privacy and security are key components of trusted and effective data collaboratives, the real goal is to re-use data for broader social goals (while preventing any potential harms that may result from sharing).

In what follows, we seek to provide more clarity on how data stewards can accomplish these duties by:

- ▶ Defining the *responsibilities* of a data steward; and
- ▶ Identifying the *roles* which a data steward must fill to achieve these responsibilities.

# 2

## THE ROLES AND RESPONSIBILITIES OF DATA STEWARDS

### KEY TAKEAWAYS:

- ▶ Data stewards have three responsibilities. First, they **COLLABORATE**, working with others to unlock the value of data when a clear case exists. Second, they **PROTECT** customers, users, corporate interests, and the public from harm that might come from sharing or use. Third, they **ACT**, ensuring relevant parties put the insights generated to use.
- ▶ These responsibilities manifest in the five roles that a data steward must fill. These roles are:
  - ✓ **PARTNERSHIP AND COMMUNITY ENGAGEMENT**, to reach out and vet potential partners while also informing beneficiaries of insights generated from efforts.
  - ✓ **INTERNAL COORDINATION AND STAFF ENGAGEMENT**, to coordinate actors internally and gain sign-off from them.
  - ✓ **DATA AUDIT, ETHICS, AND ASSESSMENT OF VALUE AND RISK**, to monitor and assess the value, potential, and risk of all data held within an organization.
  - ✓ **DISSEMINATION AND COMMUNICATION OF FINDINGS**, to act as the “face” of the company’s data projects and communicate shared outcomes to external actors.
  - ✓ **NURTURE DATA COLLABORATIVES TO SUSTAINABILITY**, to work with stakeholders to gather the needed resources and support for broad, long-term impact.

This document is a living document, by which we mean it will be regularly updated based on ongoing research (ours and others’), reader feedback, and evolving trends within the information ecology. Our goal is for it to contain contemporary and always relevant definitions of data stewards and their responsibilities. These roles and responsibilities can help guide companies, public institutions and other organizations currently considering setting up data collaboratives or establishing data steward-like roles. It can also show how data steward responsibilities are currently fragmented and being implemented by disparate parts of an organization (see Appendix 1).

## 2.1. THE THREE RESPONSIBILITIES OF DATA STEWARDS



FIGURE 1: THE THREE RESPONSIBILITIES OF DATA STEWARDS

**COLLABORATE:** Data stewards commit to working and partnering with others. Their goal is to unlock the inherent value of data and data expertise when a clear case exists that it can serve the public good and can be used in a responsible manner. Consequently, they need to be good managers of people, able to identify effective, trustworthy partners and promote trust themselves.

The public and private sector have resources and reach to create change by leveraging data assets in a collaborative fashion, but several factors inhibit adoption and the creation of new partnerships. These challenges include, for instance, integrating efforts into core business at scale, ensuring consumer privacy, particularly amidst the backdrop of privacy law passages such as General Data Protection Regulation (GDPR) and California Consumer Privacy Act, and the growing public distrust in how some companies handle consumer data.

A data steward's responsibility is to navigate these challenges, build the business and societal case for collaborating, incubate new opportunities for scaling, and contribute to a worldwide community of practice to share skills and knowledge.

**PROTECT:** Data stewards are responsible for managing the re-use of data responsibly, and preventing harm to potential customers, users, corporate interests, the wider public and, of course, those individuals whose data may be shared.

The specific responsibilities and strategy for this work may vary depending on the company's business model, data assets, and industry market. However, a data steward must be able to

ensure ethical usage of data and ensure an organization adheres to privacy practices and regulatory and legal compliance.

 **ACT:** Data stewards are responsible for ensuring relevant parties act upon the insights generated. Too often data initiatives focus on moving from *Data to Insight*, ignoring the next step in the process: moving from *Insight to Action*. Data stewards seek to increase the impact of providing functional access by considering end-to-end data solutions (from *Data to Insight to Action*). They also work agilely, adjusting their approach in response to new insights and developments.

## 2.2. FIVE ROLES OF DATA STEWARDS TOWARD ACHIEVING THESE RESPONSIBILITIES

 **PARTNERSHIP AND COMMUNITY ENGAGEMENT:** A central role of data stewards involves developing and implementing a more proactive and responsive approach to reaching out to and vetting possible partners, as well as identifying key priorities and questions that matter. This scoping or onboarding work can include in-depth analysis and the devising of vetting criteria to assess partnership opportunities. Criteria might assess strategic fit, anticipated impact of the proposed project, scope of internal resources needed, as well as ability to address privacy laws and risks. Data stewards act to ensure trusted relations between themselves and other parties by guaranteeing they can complete the work needed.

In addition, data stewards seek to engage potential beneficiaries (and others) of the insights generated as a result of data collaborative efforts. Needs might change throughout the project lifecycle and so data stewards should be prepared to work agilely to engage different staff and teams.”

In general, data stewards are responsible for engaging with all actors (both within and outside their companies) who may be affected by or otherwise have a stake in the innovative use of data to gather actionable questions or identify pertinent knowledge gaps that a data collaborative can fill. This work requires a deep knowledge of data governance as well as the industry space, business model, and potential external stakeholders (e.g. government, NGOs, academia, businesses) to translate effort and capture the value across partners (see Box 1).

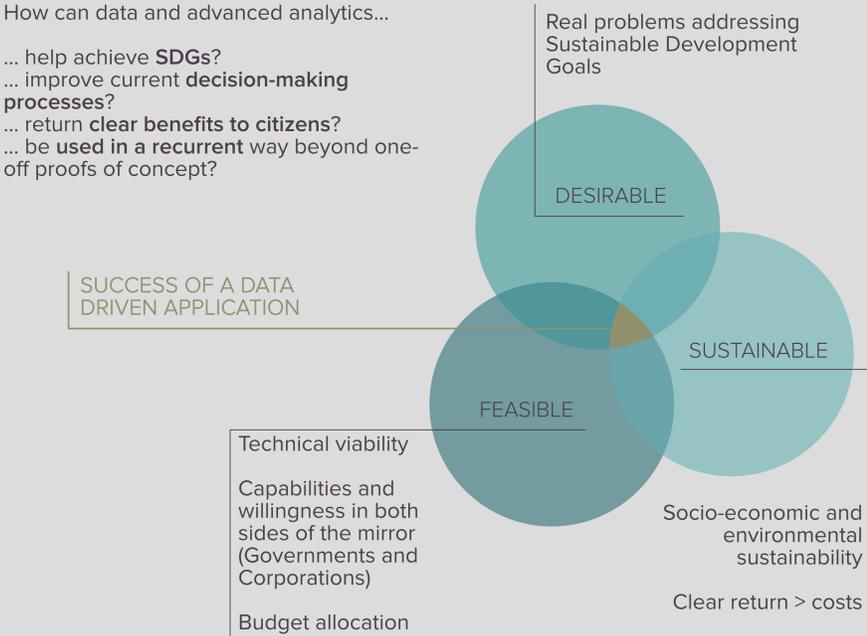
 **INTERNAL COORDINATION AND STAFF ENGAGEMENT:** Establishing a successful data collaborative requires internal coordination and sign-off from various company actors—including the legal, technical, data, marketing and sales teams—to match needs and capabilities. Data stewards are key to ensuring internal stakeholders and company leadership are informed and aligned. They might be charged with creating and coordinating standard internal processes across business units and functions to manage strategy and ensure adherence to privacy, regulatory, legal, and ethical obligations.

In addition, data stewards often play an important role in mapping and matching staff that have specific skills, such as data science abilities, or interest in data collaborative initiatives. Depending on the asset(s) provided for the collaborative, teams with specific skills such as data science, engineering, or business expertise may be engaged in developing insights or product.

**BOX 1: DETERMINING DECISION CRITERIA**

A key function of data stewards involves engaging partners and communities toward identifying questions their data can answer; and translate the insight into possible actions that improves people’s lives or enhance sustainability in a measurable way. According to Richard Benjamins (Telefonica) and Juan Murillo Arias (BVBA) data stewards need to develop a set of criteria to identify actionable questions. The below provides an example of criteria a data steward could develop to determine what Data for Social Good (D4SG) to choose and invest in. In sum, a key role of data stewards is to consider whether proposed data initiatives are desirable, feasible and sustainable.

INNOVATION: D4SG INITIATIVES CHOICE CRITERIA



*Credit: Richard Benjamins and Juan Murillo Arias*

**FIGURE 2: CRITERIA DATA STEWARDS CAN USE TO DETERMINE WHAT TO PRIORITIZE**

**DATA AUDIT, ETHICS AND ASSESSMENT OF VALUE AND RISK:** A key, more traditional, role of data stewards involves monitoring and assessing the value, potential, and risk of all data held within an organization. Data stewards must ensure their organization can be trusted with the information they have. This role includes knowing what data the organization collects, and what public interest questions that data could potentially help answer. The steward might engage with relevant stakeholders, including business leaders, to determine which data assets would be

appropriate considering access, preparation, and distribution of the data (i.e. aggregated and anonymized or within a controlled sandbox environment). This work may involve the technical and business holders of the data warehouses as well as the Chief Data Officer and Chief Privacy Officer.

Data stewards should also be involved in preparing data for analysis, assessing the challenges involved in sharing that data, as well as steps to minimize those challenges and other risks at different steps of the data value chain. The steward can implement an agreed-upon methodology to avoid potential bias and risks (such as those to privacy) and ensure scientifically sound conclusions.

Finally, data stewards should consider the ethical implications and be involved in establishing externally validated public impact measurements (both benefits and harms, if any) that result from data collaborative that re-uses data for the public good. This work could involve defining legalities around ownership of outcomes, such as if and how the data or data insights will be publicly shared (e.g. through publications and conferences). It can also entail awareness and use of innovations in management and preparations, such as use of differential privacy to protect data subjects.

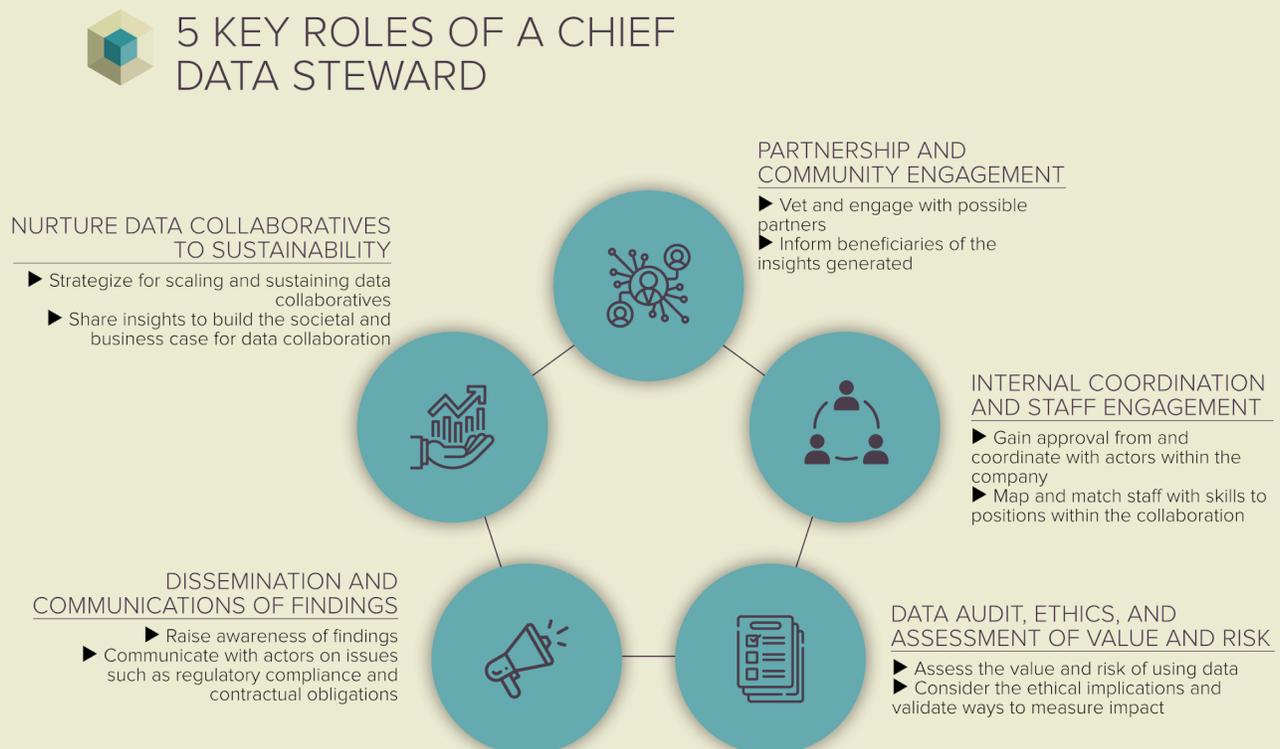


FIGURE 3: THE FIVE ROLES OF A CHIEF DATA STEWARD

 **DISSEMINATION AND COMMUNICATION OF FINDINGS:** Data stewards often act as the public face of their company’s data projects, and they are responsible for raising awareness, disseminating findings and communicating shared outcomes from data collaboratives. Communicating shared outcomes furthers understanding of the ecosystem of the issue and domain areas as well as the community of practice for developing data collaboratives and improving the perception of data usage. In other words, data stewards should be prepared to frame a compelling story.

Data stewards may also be responsible for overall communication with customers, users, partners, government and other stakeholders about regulatory compliance, contractual obligations and how data is being shared and used, and what public benefits—potential and realized—it has had.

 **NURTURE DATA COLLABORATIVES TO SUSTAINABILITY:** Many ambitious data collaborative projects collapse after initial pilots or experiments because they are often not anchored to core business priorities. Data stewards make data for good projects sustainable by articulating the business case for data collaboration. They help illustrate how the work will provide social impact, promote opportunities and may generate revenue. Based on an understanding of the overarching business need, data stewards can formulate a strategy to align business goals or objectives with those of the data collaboratives.

As many data collaboratives are nascent, data stewards can also contribute to the global community of practice by sharing knowledge and insights and helping build the societal and business case for sharing. While data stewards may not themselves have the requisite budget to ensure long-term sustainability themselves, they can work with a variety of stakeholders to gather the needed resources and support so as to ensure broad and long-term impact. Having an agile methodology might be useful in responding to changing needs and resources.



	INPUT		THROUGHPUT			OUTPUT	
	PLANNING	COLLECTING	PROCESSING	SHARING	ANALYZING	USING	REPORTING
<b>PARTNERSHIP AND COMMUNITY ENGAGEMENT</b>	Vet and engage with possible partners Inform beneficiaries of the insights generated						
<b>INTERNAL COORDINATION AND STAFF ENGAGEMENT</b>	Gain approval from and coordinate with actors within the company Map and match staff with skills to positions within the collaboration						
<b>DATA AUDIT, ETHICS, AND ASSESSMENT OF VALUE AND RISK</b>	Assess the value and risk of data Consider the ethical implications and validate ways to measure impact						
<b>DISSEMINATION AND COMMUNICATIONS OF FINDINGS</b>	Raise awareness of findings Communicate on issues such as regulatory and contractual compliance						
<b>NURTURE DATA COLLABORATIVES TO SUSTAINABILITY</b>	Strategize for scaling and sustaining data collaboratives Contribute to the societal and business case for data collaboration						

DATA STEWARD ROLES

FIGURE 4: THROUGH FIVE CORE ROLES, THE DATA STEWARD WORKS ACROSS EVERY PART OF THE DATA LIFECYCLE. THE BELOW GRAPHIC ILLUSTRATES.

# 3

## CONCLUSION AND NEXT STEPS: TOWARD A NETWORK OF DATA STEWARDS



In this document, we articulate a redefinition of data stewards—one that builds upon the understanding articulated by the European Commission’s [High-Level Expert Group on Business-to-Government Data Sharing](#).

As we illustrate above, to accelerate the responsible re-use of data through data collaboratives we need data stewards that are not just individuals focused on the technical aspects of data management but are empowered to proactively initiate, facilitate, and coordinate data sharing and data collaboration. Consequently, data stewards need to be multi-disciplinary to meet the increasing calls for data re-use inside an organization and outside it. They need to encompass a

variety of roles and responsibilities needed to leverage data assets for business or societal gain. They also need to fulfill these roles and responsibilities in an agile manner, as circumstances can often change throughout a project. Only by empowering actors to partner, coordinate, assess risk, disseminate findings, and nurture sustainability can data collaboration be successful in the long term.

Moving forward, we will engage with a broad set of stakeholders to explore the issues raised above and finetune the roles and responsibilities of data stewards integrating lived experience. In particular we will seek to understand if and whether there are any differences between data stewards in the private and public sector; and what are common challenges or practices.

We will seek to help implement data stewards within organizations as to make data collaboration and data responsibility to be more systemic, sustainable, and responsible.

Finally, we will examine the creation of a network of data stewards—as pledged and recommended by the High Level Expert Group (See Appendix 2). Toward that end we will seek to hold one or more data stewards camps or workshops to further the design features and prototype possible organizational and governance structures. Among the areas that will be considered further are the following.

- ▶ **NEED AND INCENTIVES:** what are or could be the incentives of data stewards/corporations to join the network?
- ▶ **METRICS:** what would success look like? Organizationally? Societal impact? Market shaping impact? Raising the bar?
- ▶ **GOVERNANCE:** What should the governance structure look like for the network? What can we learn from other models?
- ▶ **OPERATIONS:** How to structure the network? Where to locate it (in existing associations or a new organization?) What innovative models of organizations would work here?
- ▶ **SUSTAINABILITY AND FUNDING MODEL:** How to ensure long-term sustainability? What should be the funding model?

Organizations interested in joining this work can contact [datastewards@thegovlab.org](mailto:datastewards@thegovlab.org) to learn more.

# APPENDIX 1: RELATED ORGANIZATIONAL ROLES AND POSITIONS

## KEY TAKEAWAYS:

- ▶ In many organizations without Data Stewards, the five roles are spread out across the organization. This diffusion of responsibility makes creating, managing, and sustaining data collaboratives difficult.
- ▶ Business management literature suggests data stewards can help to coordinate a subset of relevant activities currently undertaken by the chief strategy officer, chief technology officer, chief operating officer, chief human resources officer, chief information officer, general counsel, chief data officer, chief privacy officer, and director of communications.
- ▶ It is hard to believe that implementing the roles and responsibilities described above within an organization can be done without the data steward being a highly respected C-level individual who can influence the creation of the strategy and enable cross-organizational and cross-sectoral collaboration.
- ▶ The movement toward establishing data stewards can be compared to the establishment since the start of the 2000s of chief sustainability officers across companies and sectors. The [chief sustainability officer](#), also often expressed by other titles, refers to the executive position within an organization that is in charge of its "environmental" programmes. As data becomes more and more an asset that can provide but also impact public good, organizations will need to develop a similar executive function.

The roles described above often overlap with existing positions within public and private organizations. The below table provides an overview of related organizational roles and positions.

RESPONSIBILITIES	RELATED ORGANIZATIONAL ROLES AND POSITIONS (PRIVATE SECTOR)
<p><b><u>PARTNERSHIP AND COMMUNITY ENGAGEMENT:</u></b> Data stewards reach out to and vet potential partners while also informing beneficiaries of the insights generated from data collaborative efforts.</p>	<p><b><u>OFFICE OF STRATEGY MANAGEMENT/CHIEF STRATEGY OFFICER:</u></b> <a href="#">Kaplan and Norton, 2005</a>: “The OSM becomes the central point for coordinating all [planning and execution] tasks. It does not do all the work, but it facilitates the processes so that strategy execution gets accomplished in an integrated fashion across the enterprise.”</p> <p><a href="#">Agrawal, et al., 2016</a>: “CSOs are usually in charge of their organizations’ trend forecasting, which can point to growth opportunities and looming disruptions. Similarly, they’re often the go-to individuals on competitor analysis.”</p> <p><b><u>CHIEF TECHNOLOGY OFFICER:</u></b> <a href="#">Smith, 2003</a>: “Prominent technologists are often called upon to provide services to government, academic and professional organizations. These services combine civic and professional duty with the opportunity to convey a positive image of the company and its products. Governmental committees investigate issues of national importance. Service on these committees is an honor, but it also requires the dedication of time, energy and money that could be focused on other pursuits.”</p> <p><b><u>CORPORATE SOCIAL RESPONSIBILITY PROGRAM MANAGER:</u></b> <a href="#">Medros, 2019</a>: “Companies already implement corporate social responsibility (CSR) programs to give back to their communities and make a positive impact. [...] CSR in the purest sense focuses on impacting the corporation’s broader community, and includes sustainability initiatives, memorial foundations, and volunteer programs that can have a significant impact in terms of retaining talent and employee morale.”</p>

RESPONSIBILITIES	RELATED ORGANIZATIONAL ROLES AND POSITIONS (PRIVATE SECTOR)
<p><b><u>INTERNAL COORDINATION AND STAFF ENGAGEMENT:</u></b> Data stewards coordinate actors internally and gain sign-off from them.</p>	<p><b><u>CHIEF OPERATING OFFICER:</u></b> <a href="#">Bennet and Miles, 2006</a>: “One role of a COO is to lead the execution of strategies developed by the top management team [...] managing large, often global, enterprises sometimes requires two sets of hands; in such cases, the COO typically takes responsibility for delivering results on a day-to-day, quarter-to-quarter basis.”</p> <p><b><u>CHIEF HUMAN RESOURCES OFFICER:</u></b> <a href="#">Hults, 2011</a>: “In order to add significant value to a business, HR must be able to support and enable the execution of strategy through building organizational capability. This is a role that cannot be automated, shared as a service, offshored or outsourced. It comes from an intimate knowledge of a business’s strategy and the existing capabilities of the organization. The great advantage that HR has in this area is that, ultimately, all strategy is executed by people – people who need to be supported, trained and equipped to fulfill the strategic vision.”</p> <p><b><u>CORPORATE SOCIAL RESPONSIBILITY PROGRAM MANAGER:</u></b> <a href="#">Wickertt and Backer, 2019</a>: “Identifying colleagues who shared their passion for sustainability, and creating a network of employees interested in advancing CSR, was key to getting initiatives off the ground and establishing the business relevance of sustainability in different departments. CSR managers indicated the need to have support from senior management to develop pilot projects: ‘If you want to successfully integrate CSR topics in the company, you need to build up a network of people who know the company, and whom you know,’ said one respondent.”</p>

RESPONSIBILITIES	RELATED ORGANIZATIONAL ROLES AND POSITIONS (PRIVATE SECTOR)
<p><b><u>DATA AUDIT, ETHICS, AND ASSESSMENT OF VALUE AND RISK:</u></b> Data stewards monitor and assess the value, potential, and risk of all data held within an organization.</p>	<p><b><u>CHIEF TECHNOLOGY OFFICER:</u></b> <a href="#">Smith, 2003</a>: “Many companies have addressed this need through the appointment of a chief technology officer (CTO) whose responsibilities include: monitoring new technologies and assessing their potential to become new products or services; overseeing the selection of research projects to ensure that they have the potential to add value to the company; providing reliable technical assessments of potential mergers and acquisitions; explaining company products and future plans to the trade media; and participating in government, academic and industry groups where there are opportunities to promote the company’s reputation and to capture valuable data.”</p> <p><b><u>CHIEF INFORMATION OFFICER:</u></b> <a href="#">Groysberg, et al., 2011</a>: “The most sought-after CIOs will have a keen understanding of how companies can put to use the oceans of information they now collect. As the CIO of a global consumer goods company explains, ‘There is a data explosion happening around us, but we feel we are well equipped to exploit this opportunity and use it as a competitive distinguisher in our markets. The ways we share our ideas and gain customer feedback are very new and exciting.’”</p> <p><b><u>GENERAL COUNSEL:</u></b> <a href="#">Groysberg, et al., 2011</a>: “They kept an eye on regulatory compliance, closed deals, reviewed documents, and dealt with employee issues. [...] Safety, security, and reputational risks all became central to the senior team’s agenda. Companies began to seek legal officers who were adept at anticipating and mitigating them before they attracted public scrutiny. Increasingly, firms insisted that the top lawyer be at the table to discuss new initiatives so that their risks would be thoroughly analyzed before rollout.”</p> <p><a href="#">Chayes and Chayes, 1985</a>: In two respects, however, contemporary corporate counsel are providing new kinds of services. [...]They are (1) preventive or anticipatory legal services, including longer range planning and programmatic prevention, and (2) management of outside counsel. [...] The paradigm role for outside counsel has been in connection with major transactions such as acquisitions, entry into new markets, and major new product developments.”</p>

RESPONSIBILITIES	RELATED ORGANIZATIONAL ROLES AND POSITIONS (PRIVATE SECTOR)
	<p><b>CHIEF DATA OFFICER:</b> <a href="#">Griffin, 2008</a>: “The CDO is typically a member of the executive management team. CDOs manage their companies' enterprise-wide data administration and data mining functions. Generally, the CDO reports to the chief technology officer (CTO) or the chief executive officer (CEO). “</p> <p><a href="#">Lee et al., 2012</a>: “Fundamentally, the CDO is tasked with being the voice of data and representing data as a strategic business asset at the executive level. Based on the data, we can see that some organizations see the role of a CDO as a service delivery with an enterprise perspective.”</p> <p><b>CHIEF PRIVACY OFFICER:</b> <a href="#">Bamberger and Mulligan, 2011</a>: “Each [CPO] was either located within the c-suite or reported directly to a c-level executive. Several reported directly to the chief executive officer (CEO). CPOs reported spending substantial portions of their time on strategic planning—’looking over our priorities, understanding where our business is going and the kinds of privacy related issues or challenges that we either face or will face.”</p>
<p><b><u>DISSEMINATION AND COMMUNICATION OF FINDINGS:</u></b> Data stewards act as the public face of their company’s data projects and communicate shared outcomes to external actors.</p>	<p><b>CHIEF EXECUTIVE OFFICER:</b> <a href="#">Meng and Berger, 2013</a>: “CEOs personify and represent their organizations through their visibility in media. In this way their leadership influences perceptions of the organization among stakeholders, and thereby organizational reputation and performance.”</p> <p><b>DIRECTOR OF COMMUNICATIONS:</b> <a href="#">Dolphin, 1999</a>: “One function of the communication department is assisting the organization with the process of defining and finding its most advantageous role within the context of those key publics with which it seeks to interact (Finlay, 1994). Communication contributes to organizational responses by devising action and communication strategies to manage relationships with key publics and around important issues (Lauzen, 1995)”</p> <p><a href="#">Korver and van Ruler, 2003</a>: “So, it is the central communication department at the corporate centre that bears ultimate responsibility for development and coordination of all formal communications. Moreover, most central communication departments do have executive tasks, especially for public relations and corporate branding.”</p>

RESPONSIBILITIES	RELATED ORGANIZATIONAL ROLES AND POSITIONS (PRIVATE SECTOR)
<p><b><u>NURTURE DATA COLLABORATIVES TO SUSTAINABILITY:</u></b>            Data stewards work with a variety of stakeholders to gather the needed resources and support so as to ensure broad and long-term impact.</p>	<p><b>CHIEF FINANCIAL OFFICER:</b> <a href="#">Groysberg, et al., 2011</a>: “Prior to the early 2000s the typical CFO was a bean counter, responsible mainly for reporting the numbers, measuring performance with integrity and accuracy, and managing the company’s checks-and-balances processes. [...] The top finance job now involves helping the CEO and business heads find new opportunities and assess their strategic and financial merits and risks.”</p> <p><a href="#">Sinfield and Trotter, 2016</a>: “[I]t’s the CFO who typically sets expectations about growth to investors and then allocates resources to ensure their organizations deliver. CFOs know exactly the role that their company plays in their investors’ portfolios”</p>

# APPENDIX 2: PLEDGE TO EXPLORE THE CREATION OF DATA STEWARDS NETWORK



## THE B2G DATA STEWARDS NETWORK

### *Stefaan Verhulst*

In the next 120 days, a steering committee comprised of several members of the B2G data sharing expert group and supported by the GovLab will seek to scope (and subsequently implement) the contours, needs, feasibility and design features of a data stewards network.

Among the members there are the following.

Stefaan Verhulst (the GovLab), who will act as coordinator of the steering committee, Nuria Oliver (Vodafone Institute), Richard Benjamins (Telefónica), Ioana Stoenescu (Roche), Helena Koning (Mastercard), Virpi Stenman (Finnish forest centre), Linda Austere (Finance Latvia Association), Juan Murillo Arias (BBVA), Dimitris Zisis (MarineTraffic) and Milan Petkovic (Phillips).

The GovLab will seek to hold one or more B2G data stewards camps or workshops to further the design features and prototype possible organisational and governance structures. Furthermore, the GovLab will seek additional funding and partners to subsequently implement the data stewards network according to the scoping exercise.

Among the areas that will be considered further are the following.

- Need and incentives: what are or could be the incentives of data stewards/corporations to join the network?
- Metrics: what would success look like? Organisationally? Societal impact? Market shaping impact? Raising the bar?
- Governance: What should the governance structure look like for the network? What can we learn from other models?
- Organisation: How to structure the network? Where to locate it (in existing associations or a new organisation?) What innovative models of organisations would work here?
- Sustainability and funding model: How to ensure long-term sustainability? What should be the funding model?

From “[Towards a European strategy on business-to-government data sharing for the public interest](#)” (2020), the final report prepared by the High-Level Expert Group on Business-to-Government Data Sharing.

For more information and examples of data  
stewardship:  
[datastewards.net](http://datastewards.net)

Have an interest to learn more about the Data  
Stewards Network? Contact:  
[datastewards@thegovlab.org](mailto:datastewards@thegovlab.org)



**DATA STEWARDS**



**GOVLAB**