Summary

Reimagining Data and Power
A roadmap for putting values at the heart of data

This summary distills the main themes and messages of the Data Values white paper to facilitate public consultation and input. We encourage partners to comment on this summary or the [full white paper](#).

1. Introduction

Amidst increasing fears of exclusion and harm perpetrated by data-driven systems, the Data Values Project set out in early 2021 to understand what principles should underpin the future of data for development to unlock the enormous potential of data for good. What emerged was the need to critically examine the ways in which power is distributed in the production, sharing, and use of data, and in how data use and governance can challenge or exacerbate existing power imbalances.

Global connectivity and data innovation are driving massive social change—for better and for worse. Data shapes our daily lives and permeates the economic and social landscape of every country in the world.[1] Access to new data sources and shifts in technology have dramatically increased measurement and tracking of the United Nations' (UN) Sustainable Development Goals (SDGs), generating critical insights into the progress and pitfalls of global efforts for change. Such widespread data collection and use have transformed how people advocate for change and how policymakers and development leaders understand and address community needs.

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[1]United Nations. (2020) 'Roadmap for Digital Cooperation,' *United Nations* [online]. Available at: https://www.un.org/en/content/digital-cooperation-roadmap/assets/pdf/Roadmap_for_Digital_Cooperation_EN.pdf

Yet key barriers hinder data's potential to improve lives. Far too many people remain excluded from data, rendered invisible by official statistics.[2] Others are harmed by their inclusion in data, which can pose dangers to their privacy, safety, and autonomy.[3] Existing data is left unused or underused by policymakers.[4] Many data governance solutions are top-down and do not allow space for people to influence outcomes that will affect them or to hold those in power accountable.[5] Development agencies collect and use data primarily at the behest of donors, who often duplicate efforts and are out-of-touch with the priorities of local governments and civil society.[6] Data and automated decision making can reinforce structural inequalities, largely behind the scenes.[7] These inequities further concentrate the power and benefits of data in the hands of a small group of decision makers in wealthy countries.

There is now more public dialogue, debate, and attention being paid to these issues than ever before. Yet this awareness has yet to translate into collective action within the development sector to tackle the unequal power dynamics that all too often underpin the design, collection, use, and governance of data. There is no coherent and widespread action across the development and humanitarian sectors to drive fairer data systems. As the deadline for delivering on the SDGs looms, there is an urgent need to reimagine the relationship between data, power, and development and to build consensus around a practical vision for a fairer data future.

This white paper was developed in response to calls from the Global Partnership for Sustainable Development Data's (the Global Partnership) network to articulate a clearer stance on normative considerations that should guide data in development and to develop an agenda for change through collective advocacy.[8]

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[2] Open Data Watch and Data2X. (March 2019) "Bridging the Gap: Mapping Gender Data Availability in Africa, Technical Report. Available at: https://data2x.org/resource-center/bridging-the-gap-mapping-gender-data-availability-in-africa/.

[3] Thinayane M. and Christine D. (2021) 'Dimensioning Data Marginalization: Social Indicators Monitoring,' *Development 64*, 119–128 [online]. Available at: https://doi.org/10.1057/s41301-021-00284-2

[4] Custer, S. & Sethi, T. (Eds.) (2017). Avoiding Data Graveyards: Insights from Data Producers & Users in Three Countries. Williamsburg, VA: AidData at William & Mary.

[5] "World Development Report 2021: Data for Better Lives." (2021) The World Bank. https://www.worldbank.org/en/publication/wdr2021

[6] Anderson, Bill and Bernard Sabiti. (2022) "Data disharmony: How can donors better act on their commitments?" discussion paper, Development Initiatives. March 2, 2022. Available at: https://www.devinit.org/resources/data-disharmony-how-can-donors-better-act-on-their-commitments/

[7] For example: https://www.technologyreview.com/2020/07/17/1005396/predictive-policing-algorithms-racist-dismantled-machine-learning-bias-criminal-justice/

[8]Berdou, et al. (2021) 'Evaluation of the Global Partnership for Sustainable Development Data,' *Itad* [online]. Available at: https://www.data4sdgs.org/itad-evaluation

This summary of the white paper, based on a year-long consultation with more than 240 people from 55 countries, starts by acknowledging that data reflects the beliefs, values, and choices of the people who design, produce, and control data and related tools. It seeks to outline the distinct ways in which data and data systems can contribute to addressing injustice and power imbalances.[9] The white paper aims to provide conceptual clarity to the key themes emerging from the Data Values Project, shed light on best practices, and share recommendations for change. Its analysis will provide the foundation for building a manifesto of action focused on rebalancing power in and through data via collective advocacy, dialogue, and learning. Alongside this global campaign, champions and changemakers will lead localized advocacy efforts by tailoring recommendations for actions at the local, sectoral, and regional levels.

The three themes of the paper's chapters—agency, accountability, and action—refer to outcomes that characterize a just data system, from the stages of collection through use and re-use in decision making. Data **agency** refers to having power to control personal and/or community data and deciding whether, when, and with whom to share it. **Accountability** is the obligation for decision makers to account for their decisions and actions and for people to shape data governance decisions and to hold the powerful accountable. **Action** refers to effective data use for public good and the role of people and partnerships, critical but under-addressed factors in ensuring that data is used to improve lives.

2. Agency in data

Agency is defined as "the capacity of people to actively and independently choose and affect change."[10] Agency in the context of data includes control over one's data and the ability to choose whether, when, and with whom to share it, as well as whether and how one is counted.[11]

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[9] This paper draws on ideas from Catherine D'Ignazio and Lauren Klein, who describe power as "the current configuration of structural privilege and structural oppression, in which some groups experience unearned advantages—because various systems have been designed by people like them and work for people like them—and other groups experience systematic disadvantages—because those same systems were not designed by them or with people like them in mind." See: D'Ignazio, C and Klein, L (2020) '1. The Power Chapter,' in *Data Feminism. MIT Press* [online]. Available at: https://data-feminism.mitpress.mit.edu/pub/vi8obxh7/release/4

[10] Open Education Sociology Dictionary (no date) 'Agency,' Open Education Sociology Dictionary [online]. Available at: https://sociologydictionary.org/agency/

[11] Slotin, J and McLaren, J (2021) 'Exploring routes individual and collective data agency,' *Global Partnership for Sustainable Development Data* [online]. Available at: https://www.data4sdgs.org/news/exploring-routes-individual-and-collective-data-agency

This definition applies to both individuals and communities. Because personal data can have broad impacts on communities, collective agency in data refers to the need for groups to take part in data design, collection, analysis, interpretation, and presentation.[12] A lack of agency at either level means that people are excluded and unable to participate in or influence decisions that affect their lives.

Data can either challenge or reinforce unequal power relationships in society, manifested in the way data renders people and groups visible or invisible to decision makers.

Data can be used to enhance personal and community agency, increase people's visibility to decision makers in government and development organizations, and create pathways for transparency and accountability. Collecting data that reflects societal inequities among people based on race, gender, and other intersecting factors also enables policymakers to address disparities between groups. National Statistical Offices have an important role to play as the custodians of official data collection and statistical production. Standard data disaggregation is an important foundation and the first step for revealing these inequalities, but it is not sufficient on its own. Other analytical approaches and means of capturing people's lived experiences through data can reveal intersecting structural inequalities and social norms.

But data can also reinforce unequal power relationships, specifically by rendering people or groups invisible, which can undermine their agency and exacerbate inequalities. When people are not counted or are not appropriately represented in official data, they are invisible to decision makers in government and development organizations.[13] People may be excluded from data for a range of reasons, such as living in hard-to-reach places or not having a stable home. In some cases, people may choose not to be counted, either because of lack of trust in institutions or decision makers or for fear of being recognized, surveilled, or targeted by governments.[14] In other cases, people are misrepresented or

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[12] Paradigm Initiative (2021) 'COVID-19 and Digital Right: A Compendium on Health Surveillance Stories in Africa,' *Paradigm Initiative* [online]. Available at: https://paradigmhq.org/report/covid-19-and-digital-rights-a-compendium-on-health-surveillance-stories-in-africa/ and Tisné, M. (2020) 'The Data Delusion,' *Luminate* [online]. Available at: https://luminategroup.com/posts/report/the-data-delusion

[13] Thinayane M. and Christine D. (2021) 'Dimensioning Data Marginalization: Social Indicators Monitoring,' *Development 64*, 119–128 [online]. Available at: https://doi.org/10.1057/s41301-021-00284-2

[14] Data Values Project Focus Group Discussion 1 (14th October 2021) '*What does genuine inclusion through data look like and how do we make this a standard practice?*' and Kenya Revenue Authority. (no date) 'Social Media Posts Inspiring Tax Compliance Says KRA,' *Kenya Revenue Authority* [online]. Available at: https://kra.go.ke/en/media-center/news/1506-social-media-posts-inspiring-tax-compliance-says-kra

rendered invisible when collected data is not an accurate reflection of priorities or characteristics that are important to these communities.

Who controls how data is designed and produced has implications for how people—especially those who are marginalized—are represented and included in data processes, and in related decision making.

Structural inequalities are reinforced when data design, collection, and analysis are top-down processes controlled by people and groups with greater power in society. Too often these processes measure levels of deprivation or assimilation (i.e., "How much poorer are these people in comparison with the majority?") instead of providing a holistic picture of people's living situation and well-being that reflects their resilience, strengths, and needs.[15] This issue can be addressed when people and communities are actively involved in shaping data production.

Beyond data disaggregation and intersectional approaches, it's critical to explore ways for people and communities—especially those who are marginalized—to participate at every stage of data creation, analysis, and use. Through involvement in data processes, people can highlight different perspectives and influence decision making and program implementation.

Through participatory data processes, people can also build their data literacy skills and their capacity to use data to advocate for change. Such approaches also create incentives and mechanisms for people to access data and provide feedback on the quality of services. Efforts to make data open while safeguarding privacy ensure that people can interrogate and influence decision making. These are foundations for transparency and accountability that strengthen individuals' and communities' agency and trust in data systems and decision makers.

The white paper identifies three features of inclusive approaches: representation, co-creation, and verification. These approaches provide ways for people to engage in data production and use, as well as be involved in the decision making around what data should be collected and how it should be produced and analyzed.

When people are **represented** in data, efforts are made to ensure that they are both visible and depicted accurately. This generally involves disaggregating data by one or

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[15] Phillips, Gwen and Tom Orrell. (2021) "We are here! - #DataValues Fireside Chats." Available at: https://www.youtube.com/watch?v=_ojbnGrE7-A&list=PLi5qXhh-ze8Cz2J_h86sKcp1BCN9gZ74r&index=2&t=45s

more characteristics and means that data producers proactively seek to include people who are often left out.

People are more likely to care about data when they participate in creating it. This is **co-creation**—when the views, lived experiences, and perceptions of communities are incorporated into the design phase of data-focused projects. However, co-creation can be time and resource-intensive, and it requires a level of knowledge of the issues and willingness among citizens to engage in sharing views and experiences.

Finally, **verification** is when people provide feedback and can contribute to how data is created, processed, and used based on specific priorities. Through this approach, committees or groups are tasked with ensuring that people's needs and priorities are included and protected in data. Verification processes run the risk of tokenism, however, and require people to select trusted intermediaries to represent their communities.

There is no one-size-fits-all approach. A combination of these features should be applied to maximize benefits and expand people's agency through data.

Inclusive approaches can maximize benefits, expand agency, and redistribute power, but they must be undertaken systematically so that inclusion becomes embedded across data systems.

Embedding inclusion systematically should be a core goal of data stewardship. It requires a deliberate investment of time and skills to challenge mindsets and shift power. Across public and private sectors, data stewardship has been described as a function or set of functions to facilitate the production, management, sharing, and use of data within and between organizations in a responsible and trustworthy manner.[16] Trust is fundamental to stewarding data in the public interest and therefore requires considering the power imbalances that exist in data systems and how they can be addressed through greater inclusion and participation.

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[16] United Nations Economic and Social Council (2021) 'Report of the Working Group on Data Stewardship' *United Nations Economic and Social Council* [online]. Available at: https://unstats.un.org/unsd/statcom/53rd-session/documents/2022-5-DataStewardship-E.pdf; Govlab (2020) '(Re-)Defining the Roles and Responsibilities of Data Stewards for an Age of Data Collaboration) *Govlab* [online]. Available at: https://thegovlab.org/static/files/publications/wanted-data-stewards.pdf; Ada Lovelace Institute (2021) 'Disambiguating data stewardship' *Ada Lovelace Institute* [online]. Available at: https://www.adalovelaceinstitute.org/blog/disambiguating-data-stewardship/

3. Accountability in data governance

Decision makers must be held accountable for the ways that data is collected, managed, stored, and used. Accountability should be embedded in all stages of data governance and should not be treated as an afterthought when scrutinizing leaders and institutions. Key to accountability are participatory data governance mechanisms, which provide spaces for deliberation, consensus building, and public scrutiny as a complement to—and sometimes a check on—formal mechanisms.

Formal mechanisms of data governance (laws, policies, and institutions) provide the framework for accountability, but they are not sufficient on their own.

Participatory data governance mechanisms that enable people to influence decisions or outcomes provide an essential complement to formal mechanisms. They include a range of approaches, institutions, and forums designed to foster transparency and create space for people's interests to be represented in decision making. Participatory mechanisms can operate inside, outside, or alongside formal mechanisms of data governance.

These mechanisms engage people directly or indirectly in data governance and adopt approaches that range from **informing** people about how their data will be governed to **consulting** them and providing feedback on their concerns, **involving** them to ensure their concerns are reflected, **collaborating** with them in designing data governance models, and finally **empowering** people by supporting their decisions about data governance.[17]

Fostering participation in data governance through one or several of these approaches is already happening around the world and it's leading to greater accountability as a result. For example, councils or committees made up of local stakeholders can scrutinize a project or an organization's data management through a collaborative process to ensure it is responsive to local needs at the design and implementation stages.[18]

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[17] "Participatory data stewardship." (2021) Ada Lovelace Institute. Available at: https://www.adalovelaceinstitute.org/report/participatory-data-stewardship/

[18] One example of this: Data-Pop Alliance's Councils for the Orientation of Development and Ethics (CODE) are advisory groups made of independent and local stakeholders who provide ethical guidance for data collection and use to project. Yanez, L and E. Letouzé (2021) 'The CODE for building participatory and ethical data projects,' *Data Values Project* [online]. Available at: https://www.data4sdgs.org/news/code-building-participatory-and-ethical-data-projects

Another approach is for communities to establish and implement their own data governance principles. Indigenous communities have been at the forefront in establishing practical and ethical principles to govern data about their communities, starting with the recognition that accurate and timely information is key to addressing the long-lasting impacts of colonization and systemic racism.[19] These processes provide an important complement to formal governance mechanisms by shifting power to affected communities and creating pathways for accountability.

Participatory data governance mechanisms are essential for shifting power to people and fostering accountability in practice.

Integrating participation in data governance can ensure that the data systems of the future are answerable to the people they serve and that the benefits of data are evenly shared. These informal mechanisms combine a diversity of perspectives to balance competing interests and shift power asymmetries. They foster transparency through open communication and information exchange, which create space for scrutiny. They create opportunities for learning among all stakeholders: experts and laypeople, data producers and users, government officials, and community members.

This builds trustworthy data practices, increases data literacy, and demystifies technology and data governance. Most importantly, participatory mechanisms can be tailored to specific contexts and operate on an ongoing basis, which allows them to be agile and evolve. Legislation, regulation, and institutions are slow to adapt to change, and so, when accompanied by participatory mechanisms, are better equipped to adapt to our fast-moving digital world.

To institute these mechanisms, organizations must grapple with and confront the trade-offs and additional costs inherent to broadening participation in data governance.

Numerous examples make it clear that participatory governance is not only possible but already happening in many contexts and places around the world. Nonetheless, organizations aiming to increase participation will face inevitable trade-offs related to:
- balancing individual and collective interests;
- avoiding tokenistic measures;
- ethically compensating people for their time and contributions;
- trade-offs between the possibility for direct involvement in decision making and the number of people who can be directly consulted; and

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[19] The First Nations. (2021) 'The First Nations Principles of OCAP,' *The First Nations* [online]. Available at: https://fnigc.ca/ocap-training/.

- ensuring that people have the knowledge, skills, abilities, resources, time, and willingness to take part in these processes.

Creating true participation and accountability in data governance is only possible through intentional, well-planned, and flexible effort. Above all else, participatory mechanisms must protect people and not put them at risk.

For accountability to work, rules need to be enforced, decisions and actions need to be inclusive and transparent, and people need to be able to verify that those in power are doing what they said they would do. This requires robust data governance that is built on a solid foundation of laws, policies, and institutions and is buttressed by participatory mechanisms that allow affected communities to be informed and have a say in how their data will be managed and used.

4. Data in action

The potential of data to change development outcomes and ultimately redress power imbalances lies in its effective use to inform decision making and produce fairer policies. Evidence-based decision making requires high-quality, timely data. Yet, much of existing data remains unused, untapped, or underutilized. This failure fuels bad policy and inefficient programs, benefits the most powerful in society who profit by perpetuating the status quo, and leaves people who are marginalized behind.

Understanding the barriers to sustained data use is a critical but under-addressed factor in ensuring data improves lives. Human factors that impact data use—people's motivations, incentives to collaborate, capacity, skills, and institutional and organizational cultures and constraints—receive much less attention than technical questions related to data quality and accessibility even though they appear to have a greater influence on data use.[20] These human factors are hard to identify and even trickier to fix, but they're far from intractable.

Sustained data use by decision makers is not a given. Human and relational factors impact whether and to what extent data is used to its full potential.

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[20] Barbero M. (2022) 'Embedding data use in development practices,' *Global Partnership for Sustainable Development Data* [online]. Available at: https://www.data4sdgs.org/resources/embedding-data-use-development-practices

Trust is both an enabler and an outcome of data use. For decision makers to use data, they must trust in its validity and reliability. Likewise, the public must be able to trust, not only in data itself, but also in the credibility of data producers, public institutions, and decision makers to put that data to use.[21]

Effective data use requires people to collaborate across different parts of government, sectors, and communities.[22] Breakdowns in communication and coordination can leave data untapped to address public challenges.[23] The people engaged in designing, providing, collecting, analyzing, interpreting, and using data are a crucial concern in enabling data use that empowers people.

Widespread shifts in organizational culture within governments, companies, and the nonprofit sector are needed to realize the potential of both public and private data use for public benefit. Poor data use cultures, especially within governments and companies, exacerbate power asymmetries. When data is hoarded, its benefits go to the few instead of the many. Society cannot access its full value. Likewise, not collecting, analyzing, or using data out of fears of negative effects squanders the enormous potential of data—much of which already exists.[24] Only by transforming organizational culture, working in partnership, and holding leaders accountable can we fully unlock the power of data to affect positive social change.

Equipping people with the skills to understand, analyze, and use data is essential to increasing data use for public benefit.

Data literacy, or people's ability to understand, analyze, and make decisions about data, is the bedrock of effective data use. Once seen as a technical concern for business leaders

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[21] Orrell T. (2021) 'Towards a framework for governing data innovation: Fostering Trust in the Use of Non-Traditional Data Sources in Statistical Production,' *Data Ready, SDSN TreNDS, and Open Data* [online]. Available at: https://static1.squarespace.com/static/5b4f63e14eddec374f416232/t/6061c9994f9237430a22291d/1617021339239/Trust+in+Statistics-L3.pdf

[22] Ramage S and Slotin J. (2021) 'Why people are essential in data interoperability,' *Global Partnership for Sustainable Development Data* [online]. Available at: https://www.data4sdgs.org/news/why-people-are-essential-data-interoperability

[23] "From local needs to local knowledge: better data to end hunger." (2021) The Global Partnership. Available at: https://www.data4sdgs.org/sites/default/files/2021-07/From%20Local%20Needs%20to%20Local%20Knowledge-%20Better%20data%20to%20End%20Hunger_July%202021.pdf

[24] Open Data Institute (2021) 'Our Theory of Change,' *Open Data Institute* [online]. Available at: https://theodi.org/about-the-odi/our-vision-and-manifesto/our-theory-of-change/#1531394343060-45b9d19a-7776

and public servants, the proliferation of data and software platforms has expanded data literacy concerns to the wider public sphere. Now, individuals across organizations and particularly in management roles must feel empowered to assess and make decisions based on data, and the broader public needs to develop the knowledge and skills to hold decision makers accountable for data use. Building skills around data is central to increasing data use by individuals, organizations, and governments.[25]

Data literacy should take a community-centered approach. Communities need to collectively care about the promise and the peril of data. Data literacy should enable communities to hold governments accountable and be used by people to solve their own problems.

Data gives decision makers immense power to make decisions for public benefit. For this to happen, leaders and data stewards in the public and private sectors need to go beyond the mechanics of data access and sharing to create trust, build relationships, invest in data skills, and create incentives to use data for good.

5. Conclusion and recommendations

The consensus emerging from the Data Values Project is to advocate for actions that will shift power to the people most affected by data production and use. This requires changes that promote individual and collective agency, foster accountable data governance, and ensure data is used for actions that improve well-being. This would enable people to shape how they are included in data and to influence whether and how their data will be used, prioritizing a human-centered approach to ensuring data is used for public good. Shifting power requires respect, solidarity, accountability, introspection, and space to call out harmful practices.[26]

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[25] Pybus, Coté and Blanke (2015) 'Hacking the social life of Big Data,' *Big Data & Society,* 2(2) [online]. Available at: https://doi.org/10.1177/2053951715616649; and Bhargava et al (2015) 'Beyond Data Literacy: Reinventing Community Engagement and Empowerment in the Age of Data,' *Data Pop Alliance* [online]. Available at: https://datapopalliance.org/item/beyond-data-literacy-reinventing-community-engagement-and-empowerment-in-the-age-of-data/

[26] Afadzinu, N. (2020) 'Going beyond Western models of value to shift the power' *Bond* [online]. Available at: https://www.bond.org.uk/news/2020/01/going-beyond-western-models-of-value-to-shift-the-power; and Richards, K. (2022) 'The practical and ethical implications of inclusive data' *Data Values Digest* [online]. Available at: https://datavaluesdigest.substack.com/p/the-practical-and-ethical-implications?s=r

Data stewardship has emerged as a critical means to manage the challenges, opportunities, and risks of data-driven organizations and systems.

Whether data stewardship is performed by a person, a single entity, or a combination of people or organizations, stewards are well-placed to consider the power imbalances that exist in data systems. Whether they sit in private companies, National Statistical Offices, other parts of government or independent entities, data stewards have a unique role to play in promoting agency in data, accountability in data governance, and putting data into action. They can assume responsibility for building partnerships with civil society organizations and community groups, convening committees and task forces to examine exclusion and biases in data, establishing systems for upskilling staff and creating incentives for data use, and creating and advocating for participatory mechanisms of data governance.

The Data Values Project envisions a world where people can be more equal players in the production and use of data that affects their lives. To fulfill this vision, the white paper outlines detailed recommendations for specific actors, which are summarized below.

Government departments and agencies:
- establish mechanisms for civil society and communities to shape data collection processes and participate in decisions about how their data will be governed.
- communicate transparently about data laws, policies, and their implications and lead by example, holding themselves accountable and holding other powerful actors accountable for harmful data-related practices.
- invest in the frameworks, skills, and relationships that will drive sustained data use to reduce inequalities.

Donors and international organizations:
- accompany digital development efforts with financial and technical support for governments and organizations to foster inclusion and participation.
- create and support mechanisms to listen to communities and establish feedback loops internally and in their assistance to governments and organizations.
- recognize that digital development is not only about tools and products and invest heavily in skills, capacity, and partnerships to build a culture of data use.
- strive to share knowledge and align their priorities with national development plans and seek to complement existing initiatives rather than carrying out duplicative activities.

Private companies:

- acknowledge the power they wield as active contributors to a fair data future and take steps to promote more equitable societies that protect individual and community data rights.
- engage in cross-sectoral partnerships, contribute data for social good, and establish user-centric and participatory approaches to build products and services that do not reinforce structural inequalities.
- develop business practices, services, and products that align with people's aspirations and values, are not extractive, and empower people to shape how their data is used.

Civil society organizations:

- represent communities' needs, interests, and ideas by supporting their participation in data production and governance.
- collect and share data from people and communities, and they use data to hold governments accountable for their responsiveness to communities.
- play a dual role of partners to governments, donors, international organizations, private companies, and activists pushing for greater transparency and accountability in data production and use.

Together, these groups have power to create and foster more just data systems, from the stages of collection through use and re-use in decision making, that unlock the power of data for all people.