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International data governance: Pathways to progress

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I. Introduction

1. This paper provides a narrative, rationale, and a vision for global data governance with the objective of consolidating a United Nations system common understanding on the topic and supporting the UN system to play a role in supporting Member States to articulate the foundation for a global data governance framework built on a mapping of data governance frameworks (Annex 1) and other international data governance initiatives (Annex 2). The paper was prepared by the HLCP working group on international data governance[1] in line with the concept note approved by the Committee at its 43rd session. Building on the HLCP's strategic narrative adopted at its 42nd session, including the pillar on new global public goods where the Committee requested a scanning of processes related to international data governance. The working group has built on the papers presented to HLCP at its 44th session on potential contributions to intergovernmental processes, including the General Assembly processes related to the development of the Global Digital Compact, and the preparation for the Summit of the Future. There may be other intergovernmental initiatives that this paper can inform (Annex 5).

2. The paper aims to strengthen the policy coherence of international data governance that both protects the privacy and human rights of persons as well as leverage opportunities for data to be used for the global public good.[2] In the development of this paper, the working group conducted consultations with stakeholders[3] through a combination of online and face-to-face meetings. The analysis contained in the paper and the annexes may be useful for the United Nations system to engage with Member States towards a framework for international data governance that is responsible, accountable, and promotes data for the global public good.

II. Making the case for international data governance

3. The use of data is paramount both to inform individual decisions and to address major global challenges. Data are the lifeblood of the digital economy, feeding algorithms and artificial intelligence, driving international services trade, informing logistics, shaping markets, communications, and politics. Humanity, through its systems and machines, collect, process, share and use staggering volumes of digital data; personal and non-personal, public, and private (see Annex 4). But data do not just yield economic benefits, they can also realise individual and societal benefits and impacts when used responsibly.

4. Data, when represented as statistics and information, also facilitate innumerable social interactions, and deliver the evidence needed to formulate and assess regional, national, and international policies and programmes, such as the 2030 Agenda for Sustainable Development and the Sustainable Development Goals. They can be merged with other data to derive new data and new data products, generating informed-policies, economic value, and social benefit. Access, processing, use, and re-use of data are essential for dealing with global challenges, be it environmental management and protection, pandemic intervention, or disaster or crisis response. Data are also at the centre of innovation in all economic sectors; increasingly used by firms and businesses as inputs in their production processes.

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[1] Entities that participated in the working group include members of the Committee of the Chief Statisticians of the United Nations System (CCS-UNS) and entities nominated by their HLCP representatives, including IFAD, ILO, ITU, UNCTAD, UNDP, UNDRR, UNHCR, WMO, the World Bank Group, UNICEF, UNU, UNEP, and the Office of the Secretary-General's Envoy on Technology.

[2] UNICEF (2023). Exploring Data as and in Service of the Public Good. https://digitalpublicgoods.net/PublicGoodDataReport.pdf

[3] Stakeholders engaged include the GovLab, Datasphere Initiative Foundation and Transform Health

5. It is important that the benefits of data are openly and equitably distributed to serve all. It is also important that the human rights and privacy of all individuals are respected (see Annex 4 for more details on safeguarding against misuse while enabling use and re-use of data). Many data are proprietary and are only accessible to a few. Resolution to many of these data governance issues cannot be fully resolved at the national level and requires international cooperation through a globally coordinated approach. See Annex 2 for a list of international initiatives in this area.

6. In recent years, there have been several calls from across the private-public spectrum for both global digital and data governance frameworks.[4] Member states have developed regulatory frameworks related to data, most notably in relation to privacy and data protection, open data, and an increasing number of localization measures.[5] With a few exceptions these have focused on national jurisdictions. In response to this phenomenon, several calls from across the private and public spectrum for both global digital and data governance frameworks, as the efforts around the Global Digital Compact point to. These calls focus on an increased need for greater technical and legal interoperability of frameworks that enables data flow while asserting rights and local values. Examples of proposals and multilateral initiatives include the G7, G20[6] and the European Union (see Annex 5).[7] Several UN and international organisations have also highlighted the need for greater coordination in international data governance (see Annex 2).[8] However, these initiatives have common and distinct characteristics (see Annex 1). Bringing consistency to the data policy landscape is an enormous task, one that will require collaboration between all states.

7. Advancing promotion and protection of data requires rules and standards[9] that safeguard while enabling the use of data that have social value or constitute a shared or common resource, ensuring equity of access, protection, and security, without undermining innovation and the possible economic benefit that data may generate, to set out explicitly what data flows are permitted, under what circumstances, and what behaviours are encouraged or discouraged.

8. At global level, national institutions, such as National Statistical Offices (NSOs) are bound by various multilateral agreements to share statistics with the UN. Similarly, there exist several humanitarian data initiatives, such as the International Aid Transparency Initiative (IATI) or the WHO Pandemic Hub, which point to the importance of global data sharing and interoperability. But at the global level, data governance has complexities and limitations that require flexibility and creativity from the multilateral system. While the UN has been providing national and global statistics for the public good since the inception of the UN Statistics Commission in 1947, the nature of data has changed immensely since then.

9. The United Nations has an opportunity to show global leadership, decommission data as a weapon, embed common values and human rights in how data are being used, repurposed, and reinvigorate the international political infrastructure by proposing a global data governance architecture. The purpose of this paper is to present a common UN system vision on global data

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[4] MacFeely, S. (2020). In search of the Data Revolution: has the official statistics paradigm shifted? *Statistical Journal of the International Association of Official Statistics*, Vol. 36, No. 4, pp. 1075 – 1094; MacFeely, S.,Me, A.,Fu, H., Veerappan, M., Hereward, M.,Passarelli, D.,Schüür, F. (2022). Towards an international data governance framework. Statistical Journal of the IAOS. 38. 703 - 710. 10.3233/SJI-220038.

[5] OECD (2022), A preliminary Mapping of Data Localisation Measures, see A Preliminary Mapping of Data Localisation Measures | en | OECD

[6] The G20 Insights have published several policy briefs regarding data, including Regulating Cross-Border Data Flows in the Development Context (2022); Cross-Border Data Flow: A Trilemma Of Mobility, Monetization, And Privacy (2022); Shared Understanding And Beyond: Toward A Framework For Data Protection And Cross-border Data Flows (2022); and Standards for the Digital Economy: Creating an Architecture for Data Collection, Access and Analytics (2020) to name a few. See https://www.g20-insights.org/policy_briefs/

[7] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A European strategy for data; Regulation (EU) 2022/868 of the European Parliament and of the Council of 30 May 2022 on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Act). The EU is also proposing a Regulation of the European Parliament and of the Council on harmonised rules on fair access to and use of data (Data Act), see - https://digital-strategy.ec.europa.eu/en/policies/data-act

[8] World Bank (2021). World Development Report: Data for better lives; UNCTAD (2021). Digital Economy Report: Cross Border Data Flows and Development – for whom the data flow.

[9] Lepore, J. (2020). If Then. John Murray Publishers, London.

governance to support the Secretary General and the UN to take a leadership position in inspiring, advocating and implementing new mechanisms for global data governance. The body of the paper and the extensive material presented in the annexes are meant to support UN entities, Member States, and all relevant stakeholders with a starting point for discussions, deliberations and concrete multilateral actions that can advance a global agenda on data governance.

III. Roadblocks to international data governance

10. Diverse and fragmented regulatory frameworks (e.g., privacy, data protection, localization, trade, digital policy, and intellectual property etc.),[10] private ownership, conflicting incentives and data-driven technological acceleration are only some of the challenges that the global agenda on data governance faces. Data governance have evolved in a fragmented and uncoordinated manner resulting in different approaches to governing data, with some regions focusing on protecting individual data, others on maximizing profit from data or using data to control societies in the name of national security.[11] Approaches around the world – including countries that have promoted open data via open government initiatives – range between the extremes of "Free Flow of Data" (which advocates for data as a critical enabler of digital transformation, innovation, economic growth and social benefits) and "Data Sovereignty"[12] (which raises concerns related to privacy, taxation, competition, security, and even the democratic process). Along the spectrum between these extremes, one can find Japan's proposal for data flow with trust[13] and Switzerland's advocacy for digital "self-determination."[14]

11. Fragmentation has produced asymmetric concentrations of data[15] and capacities to use data, together with uneven levels of data protection and accessibility across sectors, communities, and countries. Paradoxically, ubiquity of data does not mean data are available or easy to access for all, while the concentration of data holdings introduces obvious risks of abuse, manipulation[16] and inequalities.[17] There has also been a spike in data localization measures since 2017[18] due to increased competitiveness, a lack of trust between actors, and institutions, and the speed with which data has overtaken society. This is an illustration of the difficulty in dealing with the challenges raised by the massive amounts of data that now underpin almost all human activities across geographies. The risk is not only that the benefits from data may be limited to a few, but the barriers to unlocking data may limit innovation and inhibit global initiatives trying to tackle global problems – from pandemics to climate change.

12. In addition to a diversity of existing regulatory frameworks, many data used for public good are owned by the private sector. Private initiatives providing data for public goods face several challenges, which could be addressed by a common framework that regulates, provides incentives

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[10] Center for International Governance Innovation (2023) As Digital Trade Expands, Data Governance Fragments, see As Digital Trade Expands, Data Governance Fragments - Centre for International Governance Innovation (cigionline.org)

[11] UNCTAD (2021). Digital Economy Report: Cross Border Data Flows and Development – for whom the data flow.

[12] De La Chapelle, B. and L. Porciuncula (2021). *We Need to Talk About Data: Framing the Debate Around Free Flow of Data and Data Sovereignty*. Internet and Jurisdiction Policy Network. https://www.internetjurisdiction.net/uploads/pdfs/We-Need-to-Talk-About-Data-Framing-the-Debate-Around-the-Free-Flow-of-Data-and-Data-Sovereignty-Report-2021.pdf

[13] Kudo, F., Sakaki, R., Soble, J. (2022). *Every country has its own digital laws. How can we get data flowing freely between them?* World Economic Forum. https://www.weforum.org/agenda/2022/05/cross-border-data-regulation-dfft/

[14] Promotion of trustworthy data spaces and digital self-determination, https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-87780.html

[15] Verhulst, S.G. The ethical imperative to identify and address data and intelligence asymmetries. AI & Soc (2022). https://doi.org/10.1007/s00146-022-01410-5

[16] Harari, Y.N. (2018). 21 Lessons for the 21st Century. Jonathan Cape, London; Mayer-Schonberger, V. and Ramge, T. (2018). Reinventing Capitalism in the Age of Big Data. Basic Books, New York; Reich, R. (2015). 'Saving Capitalism: For the Many, Not the Few.' London: Icon Books Ltd.

[17] United Nations Secretary-General's Independent Expert Advisory Group on a Data Revolution for Sustainable Development (2014). A World That Counts. https://www.undatarevolution.org/wp-content/uploads/2014/11/A-World-That-Counts.pdf

[18] Countries restricting cross-border data flows increased from 35 to 62 and overall restrictions from 67 to 144. In the same period, 38 other data localization policies have been proposed or considered in countries worldwide. Cory, N. and Dascoli, L. (2021). *How Barriers to Cross-Border Data Flows Are Spreading Globally, What They Cost, and How to Address Them.* Information Technology & Innovation Foundation (ITIF) https://itif.org/publications/2021/07/19/how-barriers-cross-border-data-flows-are-spreading-globally-what-they-cost/

and practical mechanisms[19] for collection, accessibility, and use of data. A significant portion of private data are personally identifiable and sensitive. They are collected or harvested by private companies for private use, for example advertising, and may contain data which breach individuals' right to privacy, leading to possible harms.

13. At the same time, data generated or re-used by the private sector can be of great value to the public.[20] For example, data sourced from mobile phone companies can provide a unique source of information on people's mobility, which can be used to design more effective transportation networks. Currently, the ways in which private sector data are processed and shared are by and large determined by private companies themselves, regardless of any potential public interest. While private companies own a large amount of data that could be used for public good, they don't necessarily have the incentives or capacity, and depending on the jurisdiction, the requirement to protect data.

14. Finally, advances in data-driven technologies, such as artificial intelligence, have increased unregulated data use globally. As these technologies are further developed, concerns for data, whether it is the data used in or created by these technologies, only become greater. This paper therefore compliments and integrates into global efforts on digital policy, such as efforts to regulate artificial intelligence and promote cybersecurity.

Cost of inaction

15. For economies around the world, the cost of ungoverned data and data flows is a loss of trade, a loss of innovation, and a loss of economic and human potential. For societies, an absence of governance facilitates greater inequalities, and the continued undermining of longstanding social contracts, and human rights, leaving peoples and communities misinformed, divided, destabilized and vulnerable. For governments and international organizations, ungoverned data undermine the provision of public services, environmental protection, humanitarian action and disaster management and response. For sustainable development, an absence of data governance may cement or exacerbate existing North-South divides, undermining decades of development. Without data governance, without a new social contract[21] for the digital era, data can be used to track, target and harm anyone. No less than the future of individual privacy and human rights are at stake. In an era of governance by numbers, of quantification, it is important that peoples and communities retain control of their data, benefit from their data, and are protected from harmful misuse of data.

IV. A vision for accountable, agile, and fair international data governance

16. With the objective of promoting and protecting data, we aim at defining a multistakeholder approach to data governance that responsibly unlocks the full value of data for all, with accountability and agility. Unlocking the value of data for all can only happen under frameworks of responsibility and accountability, through mechanisms that are participatory, transparent, multistakeholder and agile. These steps are essential if we are to foster equity, drive well-being, and protect against data misuse and data concentration that benefit only a few. A data governance framework should support and strengthen individuals and communities to have control over, and benefit from, their own data. Such a framework could do so by clarifying and strengthening legal protections against the misuse or abuse of data and engaging with communities to co-create data stewardship and accountability mechanisms. A data governance framework should encompass "data responsibility frameworks"[22] and "data accountability frameworks."

[19] These mechanisms support predictability and certainty, such as data sharing agreements and model clauses.
[20] Verhulst, Stefaan G. "Sharing Private Data for Public Good" Project Syndicate, 7 Feb. 2020, https://www.project-syndicate.org/commentary/private-data-public-policy-collaboration-by-stefaan-g-verhulst-1-2019-08
[21] World Bank. 2021. World Development Report 2021: Data for Better Lives, https://wdr2021.worldbank.org/the-report
[22] https://datacollaboratives.org/framework.html

A framework for responsibility

17. While there is not a uniform understanding of the term "responsibility" when applied to the governance and management of data, certain actors have put forward the notion of "Data Responsibility" frameworks to support the collection, use and re-use of data. It is critical that "Data Responsibility" happens across complex data value chains, imbuing values that support equity from data ingestion to curation and analysis. Historical principles expressing a responsible approach to data,[23] once powerful, eroded during Web2 and the explosion of the mobile internet. Digital transformation today and AI like ChatGPT[24] pose new challenges on a daily basis. Examples of more modern frameworks include the United Nations Office for the Coordination of Humanitarian Affairs – *OCHA Data Responsibility Guidelines* ('the Guidelines'), published in October 2021.[25] Furthering this effort and perhaps supporting the application of a responsibility framework beyond humanitarian relief, UN OCHA, the GovLab and Center for Innovation joined forces to propose an expanded Framework based on six elements: technology, legal, governance, process, people, and network. These elements are then shaped by an ethics dimension. The authors believe that this framework will help organizations maximize the value of data in their work while minimizing the risk.[26]

A framework for accountability

18. Beyond responsibility, a continuous assessment is necessary to ensure a responsibility framework is well developed and applied. Without accountability, value sharing cannot be confirmed, and data can be decoupled from its governance and context in ways that negatively affect well-being. Continuous assessment also allows for the identification of impact, of unintended consequences, ensuring different actors do indeed follow the framework agreed upon. Continuous assessment also allows for the application of enforcement and penalty mechanisms and more. A robust Accountability Framework will enable transparent recognition and tracking of commitments to a certain data initiative, facilitating feedback and learning. A clear accountability framework also supports legal and operational compliance. Accountability frameworks are not a novel idea in multilateralism. International conventions such as CITES,[27] define an accountability system where countries are monitored for implementation and face sanctions for noncompliance. There are inspiring examples also of accountability framework, such as come from the *UN Sustainable Energy for All initiative Accountability Framework*.[28] Additionally, with most countries of the world adopting privacy and data protection norms, a series of accountability frameworks have been proposed with regard to privacy. An example of an accountability framework focused on privacy is the UK Information Communications Officer.[29]

19. And while the development and application of these frameworks are the duty of all, the essential role of data stewards[30] emerges for both responsibility and accountability. The approaches and

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[23] For example, the Fair Information Practice Principles (FIPPS), designed in the 1970s, served as the foundation of much of the historical discussion, but are of limited use in the modern digital world. Notice and consent principles, once powerful, eroded during Web2 and the explosion of the mobile internet.

[24] Metz, C. (2022). *The New Chatbots Could Change the World. Can You Trust Them?* The New York Times. https://www.nytimes.com/2022/12/10/technology/ai-chat-bot-chatgpt.html

[25] OCHA. (2021). *OCHA Data Responsibility Guidelines 2021*. https://data.humdata.org/dataset/2048a947-5714-4220-905b-e662cbcd14c8/resource/60050608-0095-4c11-86cd-0a1fc5c29fd9/download/ocha-data-responsibility-guidelines_2021.pdf; IASC IASC. (2021). *Operational Guidance on Data Responsibility in Humanitarian Action*. https://interagencystandingcommittee.org/operational-response/iasc-operational-guidance-data-responsibility-humanitarian-action

[26] Van Der Merwe, J. (2020). *Data Responsibility: An Approach to Protecting the People Behind the Data.* Data & Policy Blog https://medium.com/data-policy/data-responsibility-an-approach-to-protecting-the-people-behind-the-data-d6470e4a5fad

[27] https://cites.org/eng/disc/text.php

[28] United Nations – Sustainable Development. (n.d.) *Accountability Framework*. https://sustainabledevelopment.un.org/content/documents/1644se4all.pdf

[29] Information Commissioner's Office (ICC). *Accountability Framework*. ICO. https://ico.org.uk/for-organisations/accountability-framework/

[30] Verhulst, S., Zahuranec, A., Young, A., Winowatan, M. (2020). *Wanted: Data Stewards: (Re-)Defining The Roles and Responsibilities of Data Stewards for an Age of Data Collaboration.* TheGovLab. https://blog.thegovlab.org/post/wanted-data-stewards-re-defining-the-roles-and-responsibilities-of-data-stewards-for-an-age-of-data-collaboration#:~:text=Responsibilities%20and%20Roles%20of%20Data%20Stewards&text=First%2C%20they%20collaborate%2C%20working%20with,come%20from%20sharing%20or%20use

concepts under a data responsibility and accountability framework can provide for more participatory processes, ensure greater equity and inclusion, and embed new practices and procedures in the way organizations across sectors collect, store, and use data.

Collective approaches

20. New models of collective data governance are needed to promote a fairer distribution of the potential data-derived value among peoples, within and between countries. New institutional models are being developed around data and institutionalized via enabling policies. Around the world, individuals are coming together to form collectives in response to the perceived private sector failure to protect individual privacy rights and protect data from breaches, while profiting but not sharing value.[31] Examples include the use of trusts for data, data collectives, data cooperatives, data partnerships[32] and – within the European Data Strategy – data spaces. The core idea in such approaches is that collective members define common pool of data that can be collectively valued and governed considering their best common interest. Both individuals and organizations can benefit from these arrangements of collective governance and power. However, data collaboratives come with challenges, such as legal barriers, silos, the proprietary nature of data, fears of misuse as well as privacy, ethical, and fairness issues. These challenges may require new governance structures, processes, and practices to ensure the proper working of collaboration, in addition to the institution-level frameworks suggested above.[33] Despite these challenges, it is clear that collective approaches are essential if data are to unlock its value and benefits for all and contribute positively to disaster and crisis preparedness and prevention.

UN data: an example of data collaboratives and of a global public good

UN data involve many steps of verification and harmonization, with the objective of providing reliable and globally comparable data relevant to sustainable development and other areas of global multilateral action. These data are typically derived from data contributed by the national statistical systems of Member States in order to produce knowledge for the global public good where the UN plays the role of honest broker, to ensure that UN statistics are globally comparable, impartial, accurate, transparent, timely and openly accessible. UN data and statistics are not only data for the public good, they are global public goods. They build on a common (global) commitment to produce data, not only to make it available for public use. In this sense they are "owned" by the global community and not by anyone member state or the UN.

UN global public good data can only be achieved if there is an unconditional commitment by all Member States to contribute to a global data system that aspires to the highest data quality standards and without political interference. This must be matched by a symmetric commitment from the UN to harmonize national data on the exclusive basis of achieving the highest quality standards (as could be defined by the UN Statistical Quality Assurance Framework[34] for example). The Principles Governing International Statistics[35] (endorsed by 34 international organisations) reflect the commitment of the UN and the wider international multilateral system but there is currently no explicit commitment by Member States to these principles. The United Nations Fundamental Principles of Official Statistics approved by the General Assembly[36] originally applied only to the national context.[37]. Member States have not explicitly committed to apply the international principles when providing data to the UN, nor have all Member States participated in the global harmonization of data and

[31] This perception also spurred movements such as My Data: https://www.mydata.org/about/

[32] https://datapartnership.org/

[33] Ruijer, E. (2021). *Designing and implementing data collaboratives: A governance perspective.* Government Information Quarterly, Volume 38, Issue 4, https://doi.org/10.1016/j.giq.2021.101612

[34] UN Statistics Quality Assurance Framework https://unstats.un.org/unsd/unsystem/documents/UNSQAF-2018.pdf

[35] CCSA (2014). Principles Governing International Statistical Activities https://unstats.un.org/unsd/ccsa/principles_stat_activities/

[36] See: https://unstats.un.org/unsd/dnss/gp/FP-Rev2013-E.pdf

[37] But following ECOSOC Resolution 2/2022 the UN Fundamental Principles of Official Statistics are also understood to apply to international organisations also.

statistics with the result that UN data may not always meet the high standards required to inform global policy decisions.

21. Overall, within the framework of, producing and releasing data for the public good, and in some cases, as a public good, adhering to international standards, and governed by good practices will help build trust to maximize benefits and minimize harms.

22. The current lack of mechanisms to bridge existing silos constitutes an institutional vacuum. A global cross-sector dialogue involving all categories of stakeholders is needed as a prerequisite to foster the transdisciplinary collaboration data governance requires.

Agility, Fairness, and Inclusion

23. More generally, policymaking regarding data needs innovative design[38] approaches beyond the traditional multistakeholder fora, perhaps taking inspiration from agile methods pioneered in software development (iterative and modular steps)[39] but also from systems engineering or biology (activation and repression feedback loops). There are also UN governance mechanisms that have adopted a multistakeholder approach with conventions, for example that have both government and non-government parties.

24. The institutional aspects of a systems approach to data governance should also address the rapidly growing field of technologically enabled and decentralized bottom-up innovations. Initiatives such as data trusts, fiduciaries, collaborative, partnerships or decentralized autonomous organizations not only aim to propose solutions to some data-related challenges, but also raise essential and novel issues regarding their own governance mechanisms. Ensuring interoperability between a large number of such initiatives may ultimately call for the development of dedicated protocols, like those that enabled the interoperable internet and world wide web, respectively.

25. Most importantly, this calls for a fairer distribution of the created value among peoples and communities, within and between countries, which requires, particularly for the most powerful actors, a duty to coordinate and cooperate, which does not replace but complements their individual rights to self-determination and agency. Yet, a systems approach to data governance should not only rely on expecting changes in attitude but also on the institutional frameworks that can enable them.

26. Thus, a global cross-sector dialogue involving all categories of stakeholders is a priority prerequisite to the transdisciplinary collaboration data governance requires. On that basis, major actors could experiment with dynamic arrangements (e.g., transnational sandboxes). They could also eventually formalize high-level mutual commitments (e.g., in the spirit of a Framework Convention), that would serve as a foundation to organize their independent yet coordinated behaviour for in the global public interest.

V. Pathways Towards International Data Governance

27. Moving forward, a comprehensive global data governance framework that can effectively address the challenges of the 21st century in line with shared values is critical. To achieve this goal, concerted efforts by the international community, multilateral entities, private sector and grass-roots data initiatives will need to (a) agree on a set of common principles; (b) establish clear processes for making decisions; and (c) establish mechanisms for implementing these decisions.

[38] Feygin, Y. and Gilman, N. (2023). *The Designer Economy.* https://www.noemamag.com/the-designer-economy/

[39] However, one should note that agile also has its challenges, and generally works better when prioritizing short-term easy things over long-term planned things. SEe Miller, Gloria J. (2013). *Agile problems, challenges, & failures.* Project Management Institute. https://www.researchgate.net/profile/Gloria-Miller-2/publication/335475075_Agile_problems_challenges_failures/links/5d683a6d299bf1d599449143/Agile-problems-challenges-failures.pdf

- *Principles.* These should be grounded in globally accepted frameworks, such as human rights and serve as guidance for the design and development of the global data governance framework. They should provide practical and ethical guidelines for decision-makers and serve as a means of evaluating the framework's effectiveness. Furthermore, it is essential to establish common principles to ensure consistency in how data are governed among Member States. (An analysis of principles in existing frameworks can be found in Annex 4, where three key themes of value, trust and equity emerge as core to existing initiatives).

- *Processes.* It is essential to approach governance as a dynamic process that encompasses different stages, such as agenda-setting and policy formulation. Specific roles and responsibilities together with accountability mechanisms are required at different stages of the governance lifecycle. Ultimately, these processes require a strong political will of all data agents and the necessary resources. Mobilizing domestic resources and international financial support to enable these processes (and implementation mechanisms noted in the next bullet) is a pre-condition for any new global data government process.

- *Mechanisms and enabling conditions.* In terms of implementation, it will be necessary to leverage these processes to develop a set of governance mechanisms that can implement the principles and objectives globally and effectively. Defining concrete mechanisms, along with established processes, is crucial in ensuring a global data governance. Enabling conditions can help build trust, provide adequate financing, create incentives, strengthen human capital and creating of culture of valuing and prioritizing data use.[40]

Options for intergovernmental progress

28. Data and data governance is not a new topic in the UN and international bodies, and Member States have been discussing, in different forms, issues related to data principles and data governance for decades. For example, the UN Statistical Commission has been discussing ethical principles of official statistics since the 90s, and more recently UNESCO General Conference adopted *The Recommendation on the Ethics of AI*.[41] Some inter-governmental processes currently have topics related to data governance in their agenda (see Annex 2 and 5 for a list of these initiatives). Most recently, the Commission on the Status of Women, emphasized that "serious harm and discrimination against women and girls triggered by the use of new and emerging digital technologies call for regulations that take into account … the voices and experiences of women and girls to … enhance transparency on how to use and protect data and address the potential human rights violations and abuses caused by the use of their products and services".[42]

29. But despite these initiatives, there does not exist an overall international agreement comprehensively covering data governance in all its aspects and impacts. International mechanisms could take different forms. Non-binding declarations and agreements are less ambitious instruments that could allow for building consensus and establishing common principles, while binding conventions with norms that sanction the misuse of data could provide more robust and enforceable protection. There are already examples of international conventions developed by Member States that balance the notion of protection and promotion.[43] However, global engagement in the subject is still in its infancy and a step-by-step approach may be more likely to advance international engagement among Member States. The figure below provides a framework of the progressive stages that the international community could take to advance a multilateral approach to data governance.

[40] World Bank (2021). World Development Report: Data for better lives , Chapter 9. https://openknowledge.worldbank.org/bitstream/handle/10986/35218/9781464816000_Ch09.pdf
[41] https://www.unesco.org/en/artificial-intelligence/recommendation-ethics
[42] CSW67_Agreed Conclusions_Advance Unedited Version_20 March 2023.pdf (unwomen.org)
[43] For example, CITES is a binding instrument that defines norms to regulate trade of endangered species while protecting them (ensuring that they remain below certain quotas depending on their level of risk of extinction).

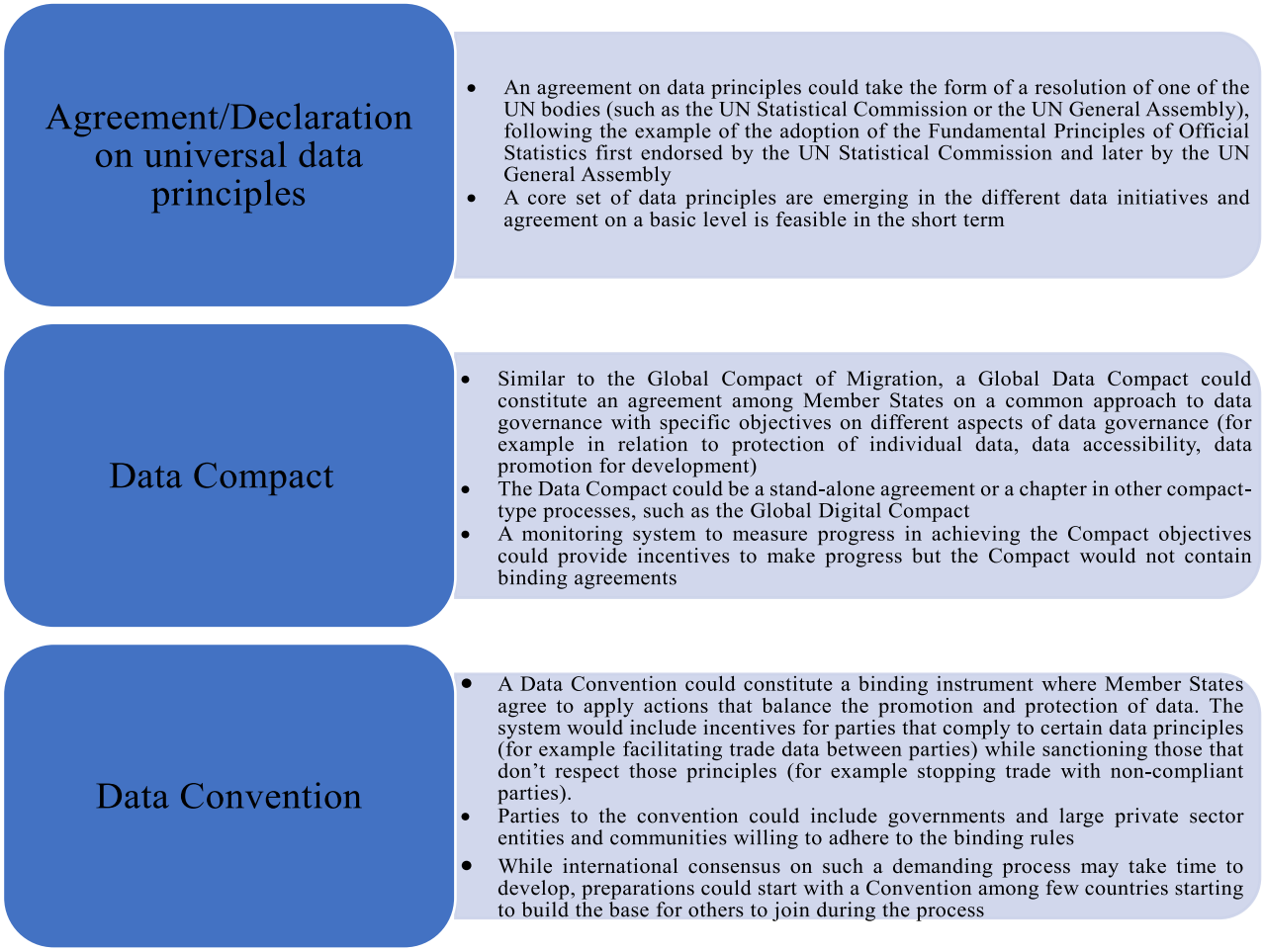

Figure 1. Three incremental steps for building a multilateral approach to data governance.

30. Intergovernmental progress should leverage and be anchored in existing international frameworks such as human rights and data principles already agreed upon among Member States (including the Fundamental Principles of Official Statistics).

31. The current development of the *Global Digital Compact* and the *Summit of the Future* represents a great opportunity that Member States could grasp to advance the agenda of global data governance. To support the digital agenda data require open data infrastructures.[44]

32. Operationalizing and implementing a global data governance framework requires a multi-stage process; and it will be important to define roles, responsibilities, and procedures across these stages. It will also be important to advance process innovation when implementing these stages to develop a framework that can address 21st challenges in new and more effective ways. Annex 6 describes the stages that need to be operationalized.

33. To advance global data governance through the mechanisms described above legitimately and effectively, UN Member States, the private sector, and civil society must work together. Multi-stakeholder engagement is critical for its success, as it can mobilize broad support for difficult policy reforms and interventions. Multi-stakeholder engagement is needed to bring together not only global initiatives that involve UN Member States, but also those initiatives that have started

[44] UNCTAD (2016). Development and Globalization: Facts and Figures – Goal 9: Industry, Innovation and Infrastructure. https://stats.unctad.org/Dgff2016/prosperity/goal9/index.html

at a local level with different governmental and non-governmental stakeholders and can be elevated to the global level. Private sector, data networks and communities have a critical role to play. Any mechanism of global data governance can't be effective if they have not a meaningful role.

Global data governance – two dilemmas: a bottom-up or a top-down approach? A Member States-led or a multistakeholder-led approach?

34. The traditional Member States-centric approach to define global agreements and commitments remains at the core of UN initiatives. This approach has two main challenges in the context of data governance. The first relates to the existing polarization of data governance approaches, making it difficult to see how a consensus could be achieved, particularly in the current multilateral environment where Member States do not seem to have appetite for ambitious consensus.

35. The second challenge relates to the multistakeholder nature of data holdings and governance where non-government agents are currently pushing the frontiers of data governance more than state actors. The private sector has a large concentration of data with probably more decision-making leverage on how to collect, process and use certain data than most governments. Civil society, concerned with this concentration, has been promoting a data agenda that places responsibility, accountability, equity, and transparency at the center. There are examples of global mechanisms in environment (such as the International Union for Conservation of Nature) and information technology (WSIS) that could function as inspiration for multistakeholder mechanisms for data governance. Leveraging existing global processes and instances such as, the World Economic Forum, the World Government Summit, or the Internet Governance Forum, which already convene large and important segments of the private sector, could also serve as effective multi-stakeholder networks for global data governance.

36. An international data governance could eventually emerge from different starting points:

    - a global Member States led process
    - civil society initiatives that promote a responsible approach to data
    - a group of like-minded countries from where other Member States can join

37. Such types of initiatives may not be mutually exclusive and could eventually all support the development of a common global vision.

38. Within the context of multi-stakeholder networks for global data governance, the private sector has an essential role since it possesses large amounts of data and leads the innovations related to data, often in a closed-private manner. Private holders of data that are of global public interest, have a special responsibility and should be held accountable for the data they provide. The importance of engaging the private sector in global data governance, ranges from the benefits it might create, such as leveraging private sector data to address the COVID-19 pandemic, to the negative impacts it might generate by not sharing relevant data such as the fossil-fuel carbon emissions preventing earlier climate action.

39. There are initiatives within the private sector that could advance the agenda of global data governance, including facilitating internal good data governance practices, such as whistle-blower mechanisms, best practices on internal data governance models, and data auditing processes, adopting a scorecard approach implemented by a credible and independent third-party body to conduct assessments, verification and reporting on impacts of data practices in the private sector, and facilitating transparency of data reporting including through ESG and Net Zero standards.

40. It is also important that harmful data concentration and data practices are prevented through government regulatory and antitrust/competition frameworks. Such a framework needs to be developed and established at a global level to address the cross-border nature of data flows.

41. Civil society, existing networks and data communities have also a crucial role to play. They can support better data representativeness, data literacy, and the use of data for the public good. Partnering with civil society organizations and expert networks can support governments to set data responsibility and accountability frameworks. Civil society organizations also can help to enable better transparency and inclusive participation in data governance processes.

Promoting coherence in the United Nations system for international data governance

42. The United Nations system is an important convenor to bring Member States and other stakeholders together and to ground international human rights, including international law such as, the Convention on the Right of the Child, and development frameworks such as the Sustainable Development Goals, in international data governance. The United Nations system can support Member States, other international organizations, the private sector, civil society, academic community, and other stakeholders across all stages of the process to operationalize and implement a global data governance framework (see Annex 6).

43. The UN system can play a critical role in advancing the global data governance agenda in two ways: by supporting Member States to engage through intergovernmental processes that can advance a responsible agenda on data governance and by improving its own internal data governance.

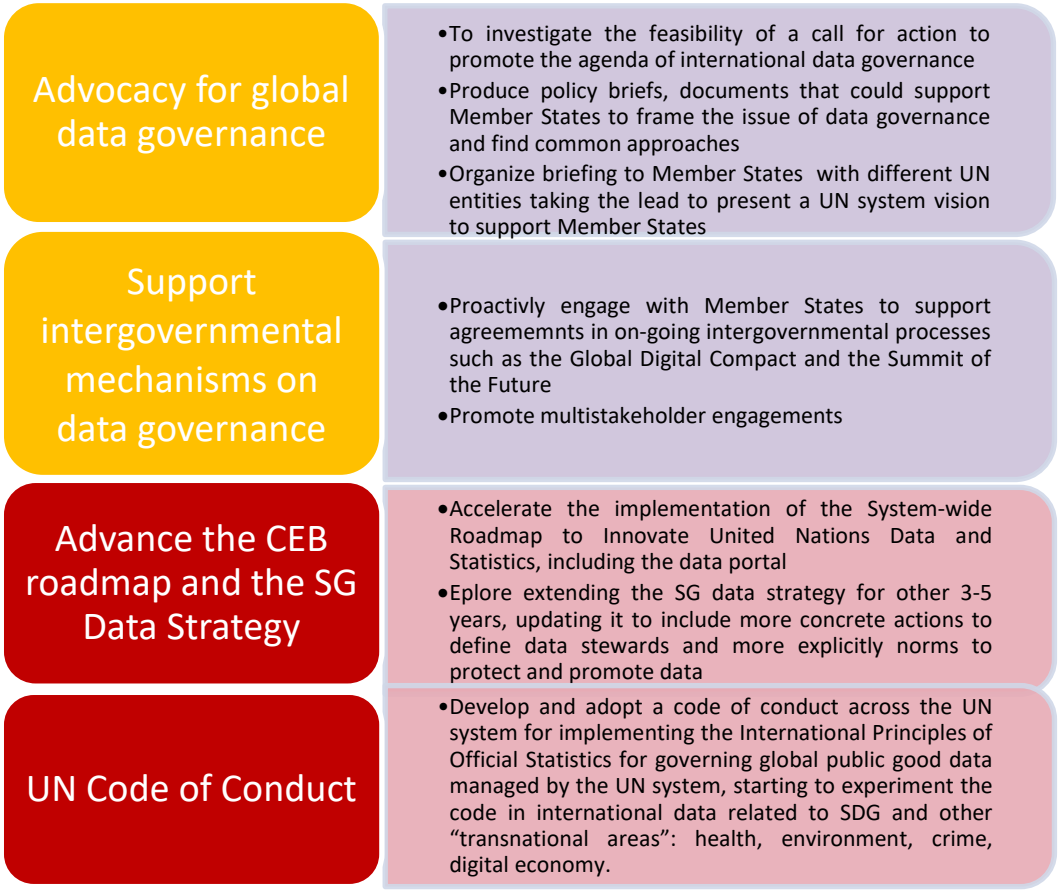

Figure 2. Actions for the UN system to promote global data governance to support Member States to define global mechanisms and to improve its internal UN data governance

44. The holistic vision and the scanning of data governance initiatives presented in this paper already represent tools that can be offered to Member States to support their reflection on if and how they want to advance the data governance agenda. But a more proactive leadership role needs to be built in the UN system to advocate with authority for a governance approach that fit the vision of this paper. It is vital that the governance approaches and mechanisms fit for the 21st centuary can govern a distributed data ecosystem.

45. Internally also the UN can do more. The UN is well positioned to assume the role of *Data Custodian for some Global Public Good Data*, data collectively shared by Member States to support attainment of global goals such as the Sustainable Development Goals. The UN could eventually act as one of the repositories of privately generated data that have public global relevance, data collected by private entities primarily for purposes of conducting business, in cases where such data have the potential to foster attainment of global goals or to serve a key role during crisis preparedness and humanitarian response. Data governance mechanisms for private intent data are only in exploratory stages,[45] leaving untapped potential from such data especially when they are integrated with public intent data. For the role of the UN Data, see Annex 3 for further detail.

46. For the UN to assume this key role in global data governance, it is imperative that the UN leads by example when it comes to responsible, efficient, and effective use of data within and across all UN Agencies, efforts, and initiatives. The CEB roadmap to innovate data and statistics in the UN system and UN Data Strategy was an important first step towards this goal and their implementation should be strengthened and potentially extended to include concepts such as data stewardship.

47. Along with UN, also streghthen collaboration and engagement with other multilaterals to bring innovation into data governance approaches by facilitating international cooperation 46 on standards, global public goods and financing mechanisms47 to turn frameworks into practical implementations.

Next steps for the United Nations system

48. In addition to implementing existing frameworks (CEB roadmap to innovate data and statistics in the United Nations system and the SG Data Strategy) there are also opportunities to further support Member States efforts in progressing towards an accountable, agile, and fair international data governance framework.

49. This paper frames the issues and challenges that need to be addressed and articulates the rationale for an international data governance framework. This is part of the "Issue Framing" and "Agenda Setting" stages as outlined in the stages for operationalising a global data governance framework and where the United Nations system can contribute (Annex 6). Building on the narrative contained in this paper and the scanning of existing frameworks and processes (Annexes 1, 2, 4, and 5) the United Nations system could support member states in formulating policy, through collaborative and participatory processes, towards a vision of international data governance outlined in this paper, including through current intergovernmental processes.

[45] There are some good practice data partnerships addressing specific data sharing issues related to private intent data. For example, the World Bank's Development Data Partnership is a successful consortium approach focused on improving access to private intent data for social, economic, sustainable development. The consortium so far includes WB, IMF, IDB, OECD, UNDP, Rockefeller Foundation, in partnership with 30 private companies to enable access to private sector data/analytics.

[46] https://wdr2021.worldbank.org/spotlights/the-role-of-international-organizations-in-improving-public-intent-data

[47] Specialized data financing initiatives such as the UN's Complex Risk Analytics Fund and the World Bank's Global Data Facility (GDF) can help reinforce the importance of international data governance, https://datawithpurpose.org/.