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Review of Implementation of Data Revolution

Prepared by the United Nations Statistics Division for the High-level Group for Partnership, Coordination and Capacity-Building for statistics for the 2030 Agenda for Sustainable Development (HLG-PCCB)

Review of Implementation of Data Revolution 4 February 2020

Coined in May 2013, a **'data revolution'** for sustainable development to improve the quality and availability of statistics was first called for by the High Level Panel of Eminent Persons on the post-2015 Development Agenda.¹ The High Level panel was referring to transformative actions needed to respond to the demands of a complex development agenda, improvements in how data is produced and used; closing data gaps to ensure data availability for the full implementation of the agenda in all its components; improvements in availability of disaggregated data to ensure inclusiveness and prevent discrimination; building capacity and data literacy in "small data" and big data analytics; modernizing systems of data collection; liberating data to promote transparency and accountability; and developing new targets and indicators.²

*A World That Counts' report*³, spearheaded by the United Nations Secretary-General's Independent Expert Advisory Group on a Data Revolution for Sustainable Development (IAEG), sets out the main opportunities and risks presented by the data revolution for sustainable development and presents an urgent call for action, especially by governments and international institutions to act to enable data to play its full role in the realization of sustainable development by closing key gaps in access and use of data.

The report laid out **four key recommendations** for action to address these gaps, which included 1) developing a global consensus on principles and standards, through a <u>comprehensive strategy and a road</u> <u>map towards a new "Global Consensus on Data"</u>; 2) sharing technology and innovation for the common good, by fostering the <u>establishment of a "Network of Data Innovation Networks"</u> for sustainable development bringing together a range of partners and existing networks to generate knowledge and solve common problems; 3) developing new resources for capacity development, by developing a proposal for <u>a new funding stream and innovative financing mechanisms</u> to support the data revolution for sustainable development; and 4) providing leadership for coordination and mobilization, by the <u>establishment of a UN-led "global partnership</u> for sustainable development data" to mobilise and coordinate as many initiatives and institutions as possible. (See Annex 1 for more details).

To achieve the first recommendation, the IEAG⁴ outlines nine key principles for the data revolution for sustainable development to be achieved. It is recommended that consensus on these principles is reached, and the principles are agreed upon and endorsed. Throughout the report, proactive actions and measures are proposed to be guided by these principles:

- 1. Data quality and integrity
- 2. Data disaggregation
- 3. Data timeliness
- 4. Data transparency and openness
- 5. Data usability and curation
- 6. Data protection and privacy
- 7. Data governance and independence
- 8. Data resources and capacity
- 9. Data rights

The report recommended some quick wins on SDG data to demonstrate the feasibility of different approaches, experiment and innovate with partnerships and methods as a first step to setting up longer

² <u>http://www.undatarevolution.org/data-revolution/</u>

¹ <u>https://www.post2020hlp.org/wp-content/uploads/docs/UN-Report.pdf</u>

³ <u>https://www.undatarevolution.org/wp-content/uploads/2014/12/A-World-That-Counts2.pdf</u>

⁴ <u>https://www.undatarevolution.org/wp-content/uploads/2014/12/A-World-That-Counts2.pdf</u> 'A world that counts' report, pages 22-23.

term initiatives; such as a "SDG Data Lab" to support the development of a first wave of SDG indicators, a SDGs analysis and visualisation platform and a dashboard on the "the state of the world".

Response of the UN Statistical Commission

In response to the urgent call for a data revolution, in 2015, the United Nations Statistical Commission established the **High-level Group for Partnership**, **Coordination and Capacity-Building for statistics for the 2030 Agenda for Sustainable Development (HLG-PCCB)** and tasked the Group to provide strategic leadership for the sustainable development goal implementation process as it concerns the statistical monitoring and reporting. The HLG-PCCB aims to establish a global partnership for sustainable development data. One of the main tasks of the HLG-PCCB from their terms of reference is to "advise on how to harness the opportunities provided by the data revolution to support the Sustainable Development Goal implementation process, following up on the recommendations of the report entitled 'A world that counts: mobilizing the data revolution for sustainable development' by the Secretary General's Independent Expert Advisory Group on a Data Revolution for Sustainable Development, and taking into account the levels of development of the countries."⁵

Since the launch of the '*A World That Counts*' report in 2014, several initiatives have been taken by various actors, including the private sector, civil society and international organizations worldwide to implement the data revolution for sustainable development. However, to coordinate the transformations required, national governments, and particularly, the national statistical offices need to be at the forefront. The NSOs worldwide have funding and capacity constraints, and many are subject to restrictive government laws and policies that prevent them from taking necessary actions.

To facilitate the review of the implementation of the recommendations proposed in the 'A *World That Counts' report*, this paper aims at providing context for further discussions by the HLG-PCCB on what areas and recommendations of the data revolution report are still lagging behind. The summary table below provides some highlights on work undertaken by some key partners over the last few years. Please note that the collection of examples is not exhaustive, nor does it offer a comprehensive review of all the work undertaken.

Based on this review some gaps identified in the recommendations include the following:

- 1.a. Development of "global consensus on data"
- 1.a. Work on specific areas of the 9 principles, such as data rights, data protection, data timeliness
- 1.a. Agreement and adoption of the nine principles for a data revolution as laid out in the report
- 1.b. Standards on illicit financial flows, standards on anonymizing data, and an enforcement mechanism for data security
- 2.a. Establishment of a "Network of Data Innovation Networks"
- 2.a. 'SDG data lab': The lab should mobilise key public, private and civil society data providers, academics and stakeholders to identify available and missing data and indicators, as well as opportunities for benefitting from new methods, analytical tools and technologies to improve the coverage, timeliness and availability of indicators in each of the SDG areas
- 2.b. Development of a "world statistics cloud" to store data and metadata produced by different institutions
- 4.b. Development of a data user forum A "Global Users Forum for Data for SDGs", to ensure feedback loops between data producers and users, help the international community to set priorities and assess results

⁵ <u>https://unstats.un.org/sdgs/hlg/</u>

Ke	y recommendations	Key elements	Progress/Initiatives	Gaps
1.	Develop a global	1.a. Agree on and	- The Inter-agency and Expert Group on SDG indicators	Development of
	consensus on	promote adoption of	(IAEG-SDGs) was established by the Statistical Commission in	"global consensus on
	principles and	specific principles related	March 2015 to develop an indicator framework for the monitoring of	data"
	standards, through a	to the data revolution	the Goals and targets of the 2030 Agenda for Sustainable	
	<u>comprehensive</u>		Development at the global level, and to support its implementation.	Agreement and
	strategy and a road	Nine key principles ⁶ for	The global indicator framework was developed by the IAEG-SDGs	adoption of the nine
	map towards a new	the data revolution for	and was subsequently adopted by the General Assembly on 6 July	principles for a data
	"Global Consensus	sustainable development:	2017. ⁹	revolution as laid out
	<u>on Data"</u>	1. Data quality and	- The High-level Group for Partnership, Coordination and	in the report
		integrity	Capacity-Building for statistics for the 2030 Agenda for	
		2. Data disaggregation	Sustainable Development (HLG-PCCB) was also established by	Work on the specific
		3. Data timeliness	the Statistical Commission in 2015 to provide strategic leadership	principles:
		4. Data transparency	for the sustainable development goal implementation process as it	1. Data quality – in
		and openness	concerns statistical monitoring. ¹⁰	progress
		5. Data usability and	- During 2011 to 2015, a Friends of the Chair group worked	2. Data
		curation	on selected dimensions of the implementation of the Fundamental	disaggregation –
		6. Data protection and	Principles of Official Statistics ¹¹ in the context of the twentieth	in progress
		privacy	anniversary of their adoption. In 2015, the Statistical Commission	3. Data timeliness
		7. Data governance and	re-established the Friends of the Chair group to further work on	4. Data transparency
		independence	selected dimensions of the implementation of the Fundamental	and openness – in
		8. Data resources and	Principles in the context of the preparation for the twenty-fifth	progress
		capacity	anniversary of their adoption.	5. Data usability and
		9. Data rights	- The Intersecretariat Working Group on Household	curation
			Surveys (ISWGHS) was established by the Statistical	6. Data protection
			Commission in 2015, under the aegis of the United Nations Statistics	and privacy
			Division (UNSD), to foster coordination and harmonization of	7. Data governance
			household survey activities. The group's specific objectives are:	and independence
			promoting the development of household survey methodology,	8. Data resources and

Summary table of the Key Recommendations from the 'A World That Counts' report

 ⁶ <u>https://www.undatarevolution.org/wp-content/uploads/2014/12/A-World-That-Counts2.pdf</u> 'A world that counts' report, pages 22-23.
 ⁹ <u>https://unstats.un.org/sdgs/iaeg-sdgs/</u>
 ¹⁰ <u>https://unstats.un.org/sdgs/hlg/</u>
 ¹¹ <u>https://unstats.un.org/unsd/dnss/gp/fundprinciples.aspx</u>

	Progress/Initiatives	Gaps
 Develop a global consensus on principles and standards, through a <u>comprehensive</u> <u>strategy and a road</u> <u>map towards a new</u> <u>"Global Consensus</u> <u>on Data"</u> Nine key principles⁷ fo the data revolution for sustainable developme Data quality and integrity Data disaggregati Data timeliness Data transparency and openness Data governance a independence Data resources an capacity Data rights 	 fostering the use of common standards and methods, encouraging documentation and dissemination of survey metadata and data, promoting the use of survey data for research, and developing partnerships for capacity development.¹² In 2017, the Cape Town Global Action Plan for Sustainable Development Data¹³, prepared by the HLG-PCCB, was launched at the first World Data Forum and was adopted by the Statistical Commission at its 48th session in 2017. The Action Plan is referenced in the Resolution on the work of the Statistical Commission adopted by the General Assembly in July 2017 (RES/71/313). The plan provides a strategic framework for discussion on, and planning and implementation of statistical capacity building necessary to achieve the 2030 agenda. In 2018, the Dubai Declaration for Sustainable Development Data¹⁴ was prepared by the HLG-PCCB with inputs provided by a wide range of actors and launched at the UN WDF in Dubai. The Declaration has two essential elements: implementation and financing of the Cape Town Global Action Plan. In anticipation of the data needs of the 2030 agenda, in 2014, the Statistical Commission created the Global Working Group on 	capacity 9. Data rights

 ⁷ <u>https://www.undatarevolution.org/wp-content/uploads/2014/12/A-World-That-Counts2.pdf</u> 'A world that counts' report, pages 22-23.
 ¹² <u>https://unstats.un.org/iswghs/</u>
 ¹³ <u>https://unstats.un.org/sdgs/hlg/Cape-Town-Global-Action-Plan/</u>

¹⁴ Insert link

Key recommendations	Key elements	Progress/Initiatives	Gaps
 Develop a global consensus on principles and standards, through a <u>comprehensive</u> <u>strategy and a road</u> <u>map towards a new</u> <u>"Global Consensus</u> <u>on Data"</u> 	 1.a. Agree on and promote adoption of specific principles related to the data revolution Nine key principles⁸ for the data revolution for sustainable development: Data quality and integrity Data disaggregation Data timeliness Data transparency and openness Data usability and curation Data governance and independence Data resources and capacity Data rights 	Dhabi); in September 2016 in Europe (Dublin); in November 2017 in South America (Bogota); and in May 2019 in Africa (Kigali). ¹⁵ - ECOSOC established the Committee of Experts on Global Geospatial Information Management (UN-GGIM) as the apex intergovernmental mechanism for making joint decisions and setting directions with regard to the production, availability and use of geospatial information within national, regional and global policy frameworks. Led by United Nations Member States, UN-GGIM aims to address global challenges regarding the use of geospatial information, including in the development agendas, and to serve as a body for global policymaking in the field of geospatial information management. In 2016, the Economic and Social Council (ECOSOC) adopted a draft resolution (E/2016/L.28) entitled "Strengthening institutional arrangements on geospatial information management", which acknowledges the considerable achievements and progress made by the Committee of Experts over the past five years in the field of geospatial information management. ¹⁶ - The UN Geospatial Network was established in 2017 and can be a great resource for supporting the adoption of new sources by the UN. Geospatial information is already used by many UN agencies but mostly for disseminating statistics; few agencies use it for data collection. The UN Geospatial Network can offer opportunities to UN statistics to improve the data collected to monitor the SDGs. Satellite images and remote sensing data, for example, are constantly evolving and the information they provide is everyday more accessible and accurate offering golden opportunities to the UN statistical system.	

 ⁸ <u>https://www.undatarevolution.org/wp-content/uploads/2014/12/A-World-That-Counts2.pdf</u> 'A world that counts' report, pages 22-23.
 ¹⁵ <u>https://unstats.un.org/unsd/bigdata/conferences/2019/default.asp</u>
 ¹⁶ <u>http://ggim.un.org/</u>

K	ey recommendations	Key elements	Progress/Initiatives	Gaps
1.	Develop a global	1.b. Accelerate the	- In 2016, the Commission created a subgroup on open data	
	consensus on	development and	under the Friends of the Chair group to work on principles,	
	principles and	adoption of legal,	guidance and support for the implementation of open data in	
	standards, through	technical, geospatial and	countries. The work stream focused on mapping open data principles	
	a <u>comprehensive</u>	statistical standards:	to the Fundamental Principles, development of a background	
	strategy and a road		document to synthesize existing open data work covering data	
	<u>map towards a new</u>	- openness and exchange	interoperability, the implementation of open data practices and the	
	<u>"Global Consensus</u>	of data and metadata,	anonymization of data for official statistics and analysis of other	
	<u>on Data"</u>	including interoperability,	matters relating to the implementation of open data in official	
		Geospatial	statistics, including legal frameworks, technical aspects and the	
		information	capacities needed.	Openness, exchange of
		management and	- In 2018, the Statistical Commission formally included the	data and metadata,
		exchange, global	issue of open data in its deliberations around the Fundamental	interoperability – all in
		exchange of information	Principles of Official Statistics. One year later, the Commission	progress, but gaps
		on illicit financial flows,	established a working group on Open Data, tasked with developing	exist for:
		open data and digital	guidance for the assessment and practical application of open data in	
		rights management and	the context of official statistics. As part of these efforts, UNSD is	Standards on illicit
		licensing.	collaborating with Member States and partners from Civil Society to	financial flows
			develop training materials and conducting capacity building	
		- protection of human	activities aimed to mainstream open data best practices in all stages	Standards on
		rights, including	of the official statistical business process while protecting privacy	anonymizing data
		standards on	and confidentiality. Open data principles and practices are also being	
		anonymizing data,	addressed in the new handbook for national statistical systems.	Enforcement
		standards and	- Held every two years, the International Open Data	mechanism for data
		enforcement mechanisms	Conference was held in Madrid in 2016 and in Buenos Aires in	security
		for data security,	2018, brought together the global open data community to define	
			strategies to advance open data both locally and globally. A one-day	
			pre-event on the theme "National reporting for the Sustainable	
			Development Goals: addressing interoperability and open data",	
			organized by Open Data Watch in collaboration with the UNSD,	
			brought together representatives from national statistical offices and	
			relevant stakeholders to discuss how to ensure that national reporting	
			platforms for the Goals integrate the principles of open data and	
			interoperability.	
			- During the UN World Data Forum 2018, a " Data	

Key elements	Progress/Initiatives	Gaps
1.b. Accelerate the	interoperability: a practitioner's guide to joining up data in the	
development and	development sector" was launched by the Collaborative on SDG	
adoption of legal,	Data Interoperability. The guide was developed as a practical tool to	
statistical standards:	-	
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for data security,		
	1.b. Accelerate the development and	1.b. Accelerate the development and adoption of legal, technical, geospatial and statistical standards:interoperability: a practitioner's guide to joining up data in the development sector" was launched by the Collaborative on SDG Data Interoperability. The guide was developed as a practical tool to help to improve the integration and reusability of data and data systems. ¹⁷ - openness and exchange of data and metadata, including interoperability, Geospatial information management and exchange, global exchange of information on illicit financial flows, open data and digital rights management and licensing.In March 2019, the Statistical Commission adopted the United Nations National Quality Assurance Frameworks (EG-NQAF) to finalize the implementation guidance taking into consideration the need for countries to conduct self-assessment. UN NQAF Manual is an important contribution in guiding countries in the implementation of a national quality assurance framework, including for new data sources, new data providers, and for data and statistics of the Sustainable Development Goal indicators. 18- protection of human rights, including standards on anonymizing data, standards and enforcement mechanisms- The Global Working Group on Big Data for Official Statistics has developed various task teams that work on range of areas including mobile phone data, satellite imagery and geo-spatial data, scanner data, etc. ¹⁹ - The Integrated Geospatial Information Framework is a United Nations endorsed Framework that was developed in collaboration between the United Nations and the World Bank. The Framework provides the strategic guidance that enables country- specific action plans to be prepared and implemented. Direct

 ¹⁷ <u>http://www.data4sdgs.org/resources/interoperability-practitioners-guide-joining-data-development-sector</u>
 ¹⁸ <u>https://unstats.un.org/unsd/methodology/dataquality/</u>
 ¹⁹ <u>https://unstats.un.org/bigdata/</u>

Key recommendations	Key elements	Progress/Initiatives	Gaps
1. Develop a global	1.b. Accelerate the	been developed by the joint UNSC/UN-GGIM Expert Group on	
consensus on	development and	Integration of Statistical and Geospatial Information, based on a	
principles and	adoption of legal,	national framework in Australia. Having a common method of	
standards, through	technical, geospatial and	geospatially enabling statistical and administrative data and	
a comprehensive	statistical standards:	integrating this with geospatial information through an	
strategy and a road		internationally agreed framework will enable new, better and more	
map towards a new	- openness and exchange	integrated information for analysis and decision making processes;	
"Global Consensus	of data and metadata,	comparisons within and between countries; increased information on	
on Data"	including interoperability,	smaller geographic areas; the development of common	
	Geospatial	tools/applications to support the integration and sharing of data;	
	information	commercial development of geospatial tools that will further support	
	management and	data integration; and, generally more efficient production of	
	exchange, global	information. ²⁰	
	exchange of information	- Under the ISWGHS, the Task Force on "Spatial	
	on illicit financial flows,	Anonymization in Public-Use Household Survey Datasets" led by	
	open data and digital	the World Bank, is working with an overarching objective of	
	rights management and	maximizing the analytical usefulness of confidential location data	
	licensing.	collected with surveys within the constraints of maintaining	
		confidentiality of respondents. The ultimate objective is to create	
	- protection of human	guidelines in spatial anonymization of public use microdata.	
	rights, including	- A guidance document 'Data Privacy, Ethics and	
	standards on	Protection: a guidance note on Big Data for the achievement of	
	anonymizing data,	the 2030 Agenda' setting out general guidance on data privacy, data	
	standards and	protection and data ethics for the UN concerning the use of big data	
	enforcement mechanisms	has been published (UNDG). The note establishes common	
	for data security,	principles for UN entities on the use of new data sources for	
		measuring progress towards the Sustainable Development Goals;	
		serve as a risk-management tool with particular reference to	
		fundamental human rights; and set principles for obtaining,	
		retention, use and quality control for data from UN Global Pulse, the	
		UN Innovation Network and the private sector. ²¹	
		- UNSD continues to assist countries in using Statistical Legal	

 ²⁰ <u>https://www.efgs.info/information-base/global-statistical-geospatial-framework/</u>
 ²¹ <u>https://undg.org/wp-content/uploads/2017/11/UNDG_BigData_final_web.pdf</u>

K	ey recommendations	Key elements	Progress/Initiatives	Gaps
1.	Develop a global consensus on principles and standards, through a <u>comprehensive</u> <u>strategy and a road</u> <u>map towards a new</u> <u>"Global Consensus</u> <u>on Data"</u>	1.b. Accelerate the development and adoption of legal, technical, geospatial and statistical standards	 Framework through the UNSD/DFID project and the DESA-wide project. E.g. in Tanzania in June 2019. This review does not include the work of other international organisations which have developed standards and principles on addressing and establishing standards and principles in other domains to support the data needs of the 2030 agenda. 	
2.	Share technology and innovation for the common good, through the <u>establishment of a</u> <u>"Network of Data</u> <u>Innovation</u> <u>Networks"</u>	2.a Urgently leverage emerging data sources for SDG monitoring, through an 'SDG data lab'	 Expansion of the use of satellite imagery to augment traditional survey methods In 2018, the UN Global Platform was established by the UN Global Working Group (GWG) on Big Data for Official Statistics as a collaborative environment to support the global statistical community working and learning together to share knowledge, data and methods for all countries in the world. The UN Global Platform is a policy, technical and business infrastructure which supports an international ecosystem of statisticians, data scientists and other partners to work together to solve problems and publish their results openly. It delivers a trusted environment for collaborative data-analysis based around four pillars: Trusted Partners, Trusted Data, Trusted Methods (algorithms), and Trusted Learning. Using networking and marketplace principles, the platform facilitates the exchange, development and sharing of data, methods, tools and expertise with the aim of accelerating data innovation. The platform will also be used to coordinate capacity building activities dealing with the development of data science skills and the use of big data and machine learning techniques. The marketplace is currently the "front end" of the platform.²² In September 2019, Data For Now (Data4Now) initiative was launched by the Deputy Secretary-General. The Initiative is jointly convened by the United Nations, the Global Partnership for Sustainable Development Data, the World Bank and the Solutions 	Establishment of a "Network of Data Innovation Networks" SDG Data Lab – Global Pulse and other initiatives

²² <u>https://marketplace.officialstatistics.org/</u>

Key recommendations	Key elements	Progress/Initiatives	Gaps
2. Share technology and innovation for the common good, through the <u>establishment of a</u> <u>"Network of Data Innovation</u> <u>Networks"</u>	2.a Urgently leverage emerging data sources for SDG monitoring, through an 'SDG data lab'	for Sustainable Development Network. Data4Now will build capacity sustainably, by putting governments and particularly National Statistical Systems at the forefront. It will build a community of data users, leaders, and innovators, building new partnerships to deliver robust and timely data to will help us achieve the SDGs. ²³ - Improved coverage of census data catalyzed by Computer- Assisted Methods and other technological innovations - Global Pulse functions as a network of innovation labs where research on big data for development is conceived and coordinated. Global Pulse partners with experts from UN agencies, governments, academia, and the private sector to research, develop, and mainstream approaches for applying real-time digital data to 21st century development challenges. The objectives of the innovation labs include: achieving a critical mass of implemented innovations, lowering systemic barriers to adoption and scaling, and strengthening the big data innovation ecosystem. ²⁴ - The Africa Regional Data Cube is a tool designed to harness the latest Earth observation data and satellite technology to help Ghana, Kenya, Sierra Leone, Senegal, and Tanzania address various issues relating to agriculture, food security, deforestation, urbanization, water access, and more. ²⁵ - In 2018, the Big Data for Social Good was launched to help governments, public health organisations and NGO's respond effectively and efficiently to epidemics and emergencies through harnessing invaluable mobile insights. The Big Data for Social Good online toolkit, a comprehensive guide to the key components needed to implement mobile data-driven solutions. ²⁶	

 ²³ <u>http://www.data4sdgs.org/index.php/initiatives/data-now</u>
 ²⁴ <u>https://www.unglobalpulse.org/about-new</u>
 ²⁵ <u>http://www.data4sdgs.org/index.php/initiatives/africa-regional-data-cube</u>
 ²⁶ <u>https://bigdatatoolkit.gsma.com/</u>

Key recommendations	Key elements	Progress/Initiatives	Gaps
2. Share technology and innovation for the common good, through the <u>establishment of a</u> <u>"Network of Data Innovation</u> <u>Networks"</u>	2.b. Develop systems for global data sharing "world statistics cloud" to store data and metadata produced by different institutions	 A SDMX-SDGs Working Group was established by IAEG-SDGs to facilitate the development of Statistical Data and Metadata Exchange (SDMX)-based data and metadata exchange formats for SDG Indicators. The Working Group on SDMX published the first official version of the global SDG Data Structure Definition (DSD) along with guidelines for use of the DSD. The global DSD will be made available through the SDMX Global Registry (SGR), and is expected to be adopted by those countries and international and regional organizations implementing the SDMX standard for the reporting and/or dissemination of SDG data and metadata. The Federated Information System for the Sustainable Development Goals (FIS4SDGs), is an initiative led by UNSD, in partnership with Esri, that leverages state-of-the-art web technologies and services to improve the integration, accessibility and usability of official statistics, geospatial information, and other sources of data, including from outside the official statistical system, to support decision makers at the local, national, regional and global levels in achieving the 2030 Agenda. Following the release of the official SDG DSD in June 2019, UNSD under the UNSD-DFID project is establishing data and metadata exchange with countries; this will be through the SDG Lab, an online web portal. Data will be uploaded directly to the SDG Lab in SDMX format. The SDG Lab will facilitate comparisons between the global and national datasets and will provide visualizations and export facilities for these comparisons. Pilot SDG data exchange on this platform has been completed, and final adjustments are being implemented. Following its decision at the 2016 GWG meeting in Dublin, the GWG proposed to create a UN Global Platform. Building on the best practices of those public and private Big Data initiatives and offering the technology infrastructure and a network for data innovation to the official statistical community.²⁷ 	Development of a "world statistics cloud" to store data and metadata produced by different institutions

²⁷ <u>https://unstats.un.org/bigdata/taskteams/globalplatform/</u>

Key recommendations	Key elements	Progress/Initiatives	Gaps
2. Share technology and innovation for the common good, through the <u>establishment of a</u> <u>"Network of Data</u> <u>Innovation</u> <u>Networks"</u>	2.c. Fill research gaps	 The Sustainable Development Solutions Network (SDSN) was set up in 2012. SDSN mobilizes global scientific and technological expertise to promote practical solutions for sustainable development, including the implementation of the Sustainable Development Goals (SDGs) and the Paris Climate Agreement. SDSN works closely with United Nations agencies, multilateral financing institutions, the private sector, and civil society. SDSN's mission is to implement the Sustainable Development Goals (SDGs) and the Paris Agreement on Climate Change, through education, research, policy analysis, and global cooperation. In 2019, SDSN launched a report "In Counting on the World to Act" that details an action plan for governments and their development partners that will enable them to help deliver the SDGs globally by 2030.²⁸ Many initiatives, such as Data-pop Alliance, and POPGRID, are ongoing and carried out by the academia, though not working through UN partners.²⁹ 	In progress
	2.d. Create incentives	 UNSD and United Ideas held a Data Visualization Challenge Competition as part of the celebration around the World Statistics Day. The challenge encouraged participants to use their creativity and imagination to help answer a question relevant for development policy, by building an infographic or dynamic visualization featuring the latest data. ³⁰ At the UNWDF 2018, the Brown Institute of Colombia University and the UNSD held a competition to highlight projects pairing journalistic outlets and official statistics offices to better inform the public. These proposals came from countries around the world and the winner of the competition was invited to the Forum to accept the award and share more about their project. This competition encouraged increased cooperation and collaboration between official statisticians and data journalists. 	In progress

 ²⁸ <u>https://countingontheworld.sdsntrends.org/</u>
 ²⁹ <u>https://www.popgrid.org/</u>
 <u>https://datapopalliance.org/</u>
 ³⁰ <u>https://worldstatisticsday.org/data-visualisation-challenge.html</u>

Key recommendations	Key elements	Progress/Initiatives	Gaps
3. New resources for capacity development, by the creation of a new funding stream and innovative financing mechanisms	3.a. Investment needs, an analysis of the scale of investments needed	 In late 2017, a survey on capacity development and immediate needs was jointly undertaken by the High-level Group and the Partnership in Statistics for Development in the 21st Century (PARIS21). The survey's main aim was to obtain a better understanding of the current national identified needs regarding capacity development in NSOs and the challenges, priorities and plans NSOs have in the short and medium term. A Background document³¹ prepared by the HLG/IAEG contains some preliminary analysis on of the survey. Additional analysis, prepared by PARIS21³², is also available. PARIS21 published a paper on "Financial challenges for developing statistical systems." The paper's objective is to examine and compare financing mechanisms to address the challenge, i.e. financing statistical capacity and the implementation of the CTGAP. ³³ In 2015, SDSN, Open Data Watch, PARIS21, the World Bank, and other organizations collaborated to develop an estimate of the financing required to monitor the SDGs. The report, Data for Development: A Needs Assessment — henceforth D4D — sought to produce an aggregate figure for the cost of producing the statistics required for monitoring the SDGs in 77 countries eligible for grants or credits from the International Development Association (IDA). D4D estimated the costs based on eight categories of statistical activity. Building on the work of D4D, the State of Development Data Funding (SDDF) report updated estimates for the cost of producing the final set of SDG indicators agreed on by the Inter- Agency Expert Group on SDG Indicators (IAEG-SDGs). It went beyond the 77 IDA countries in the earlier study to include estimates for 67 lower- and upper middle-income countries that may require 	In progress

 ³¹ See section 2 of the Background document: <u>https://unstats.un.org/unsd/statcom/49th-session/documents/BG-Item3a-HLG-E.pdf</u>
 ³² http://www.paris21.org/capacity-development-40
 ³³ <u>https://paris21.org/knowledge-database</u>

Key recommendations	Key elements	Progress/Initiatives	Gaps
3. New resources for	3.a. Investment needs, an	limited development assistance to fund the production of their SDG	
capacity	analysis of the scale of	indicators. ³⁴	
development, by	investments needed	- PARIS21 has developed the Advanced Data Planning Tool	
the creation of		(ADAPT), an innovative web-based planning tool for National	
a new funding		Statistical Offices and other data producers to adapt their data	
stream and		production to the priority data needs from policy makers. It is a free	
innovative		cloud-based tool that can be used by multiple users simultaneously.	
financing		It features multilingual support. ADAPT is a consultative tool that	
mechanisms		brings together development stakeholders in the promotion of	
		evidence in policy design and monitoring. It promotes the reuse of	
		data and the quality assessment of data sources. Additionally, it	
		reinforces a coordinated data infrastructure in a national or regional	
		context. ³⁵	
	3.b. Managing funds,	- The joint subgroup of the High-level Group and the Inter-	
	proposal on how to	Agency and Expert Group on SDGs, led by Denmark, developed a	
	manage and monitor new	paper entitled "Better data for sustainable development:	
	funding for the data	implementing the Cape Town Global Action Plan for Data for	
	revolution, taking stock	the 2030 Agenda." The paper calls for the establishment of a	
	of exiting sources and	transparent financing mechanism open to all stakeholders, including	
	forms	public and private ones, which allows for financing in terms of both	
		monetary inputs and the provision of in-kind transfers, and allows	
		for openness in combining funding. The global financing mechanism would be an umbrella structure to coordinate and consolidate	I.,
			In progress
		existing and future inputs for the implementation of the Cape Town Global Action Plan, and provide a system to promote coherence	
		among the different approaches and projects being undertaken in the	
		national settings. This work is reflected in the Dubai Declaration	
		announced at the UN World Bank Forum in Dubai in 2018.	
		- The HLG-PCCB continues to work on the topic of more and	
		better financing for data and statistics. At their May 2019	
		meeting, they developed a document on Key elements of a financing	
		mechanism which will be presented to the Statistical Commission in	
		meenamism which will be presented to the Statistical Commission m	

 ³⁴ <u>https://opendatawatch.com/publications/development-data-funding-2018/</u>
 ³⁵ <u>https://paris21.org/advanced-data-planning-tool-adapt</u>

Key recommendations	Key elements	Progress/Initiatives	Gaps
3. New resources for capacity development, by the creation of a new funding stream and innovative financing	3.b. Managing funds, proposal on how to manage and monitor new funding for the data revolution, taking stock of exiting sources and forms	 2020. The Bern Network on Financing Data for Development is an open, multi-stakeholder collaboration to support the 2030 Agenda for Sustainable Development by promoting more and better financing for data. Discussions are underway between the UN and the World Bank to co-host a financing mechanism for data and statistics to better align funding for data and statistics. 	
mechanisms	3.c. Private sector participation, proposal on how to leverage resources and creativity of the private sector.	 Private sector collaboration for example, Esri has donated licenses to developing countries that wish to be part of the FIS4SDGs. Data4Now initiative has already on-board several private sector organizations including Vodaphone Ghana, Google Earth, Ant Financial Services Group (Alibaba), and Esri among others to provide solutions to countries priority data needs.³⁶ GPSDD works with over 200 partners to galvanize political commitment, align strategic priorities, foster collaboration, spur innovation, and build trust in the booming data ecosystems of the 21st century.³⁷ OPAL (for "Open Algorithms") is a non-profit sociotechnological innovation developed by a group of partners around the MIT Media Lab, Imperial College London, Orange, the World Economic Forum and Data-Pop Alliance, aiming to unlock the potential of private sector data for public good purposes by "sending the code to the data" in a safe, participatory, and sustainable manner.³⁸ The UN Global Platform established in 2018 under the GWG collaborates with various private companies, including, Microsoft, Google, Amazon, amongst many others. 	In progress

 ³⁶ http://www.data4sdgs.org/index.php/initiatives/data-now
 ³⁷ http://www.data4sdgs.org/partner-listing
 ³⁸ https://www.opalproject.org/about-opal

Key recommendations	Key elements	Progress/Initiatives	Gaps
3. New resources for capacity development, by the creation of a new funding stream and innovative financing mechanisms	3.d. Capacity development, a proposal to improve existing arrangements for fostering the necessary capacity development and technology transfer (including upgrading NSDS)	 The HLG-PCCB/IAEG-SDGs joint subgroup also worked on identifying capacity building needs to meet the demand of the SDG indicators. The work focused on indicators of Tier I and II. In 2017, a survey on capacity development and immediate needs was jointly undertaken by the High-level Group and the Partnership in Statistics for Development in the 21st Century (PARIS21). UNSD and the Department for International Development of the United Kingdom of Great Britain and Northern Ireland (DFID) formally launched a project in twenty countries in Africa and Asia, aimed at strengthening the capacity of countries in the compilation and use of the Sustainable Development Goal (SDG) indicators and making SDG data and indicators available to users, including decision and policy makers. Deliverables on the global level are an SDG data and visualization platform that provides comparisons between global and national datasets, and the establishment of an automated data exchange based on the Statistical Data and Metadata exchange (SDMX) standard.³⁹ PARIS21's Capacity Development 4.0 (CD4.0) is the process through which a country's national statistical system, its organisations and individuals obtain, strengthen and maintain their abilities to collect, produce, analyse and disseminate high quality data to meet users' needs. The CD4.0 framework focuses on the capabilities needed by national statistical systems to meet user needs across three levels and five target areas.⁴⁰ GPSDD works intensively with a number of countries to overcome common barriers such as analytical capacity, access to privately-held data, timeliness of data sources for decision-making, and more. This work goes beyond governments and is cross-sectoral in nature. Launched in 2018, the DESA-wide project titled "Strengthening the capacity of least developed countries to develop 	In progress

 ³⁹ <u>https://unstats.un.org/capacity-building/unsd-dfid</u>
 ⁴⁰ <u>https://paris21.org/capacity-development-40</u>

Key recommendations	Key elements	Progress/Initiatives	Gaps
3. New resources for capacity development, by the creation of a new funding stream and innovative financing mechanisms	3.d. Capacity development, a proposal to improve existing arrangements for fostering the necessary capacity development and technology transfer (including upgrading NSDS)	 evidence-based, coherent and well financed strategies to implement the 2030 Agenda" supports least developed countries to build capacities needed to develop and implement an National Sustainable Development Strategy (NSDS), including the investment strategy that enhances implementation of the 2030 Agenda and the Sustainable Development Goals. One of the three components is on improving access to data to improve monitoring the progress of SDGs. The Inclusive Data Charter (IDC) was developed by a task team of GPSDD partners to mobilize political commitments and meaningful actions to deepen disaggregation. It will work to improve the quality, quantity, financing, and availability of inclusive and disaggregated data as well as the capacity and capability to produce and use it, in accordance with internationally accepted standards and ongoing processes under the auspices of the United Nations. GPSDD spearheaded work on national SDG data roadmaps in 7 developing countries. Additional guidance on how to produce national data roadmaps is available from the Conference of European Statisticians (UNECE) and GPSDD. 	
	3.e. Global data literacy, aa proposal for a special investment to increase global data literacy	 The Cape Town Global Action Plan for Sustainable Data prioritizes statistical training as an essential action area. In 2018, Global Network of Institutions for Statistical Training (GIST) was established with the goal of building sustainable statistical capacities through efficient, effective, and harmonized delivery of training at global and regional levels. GIST aims to achieve this goal by facilitating collaboration, coordination, and outreach among members who are key providers of statistical training at the regional and international levels. PARIS21 works to not only strengthen the capacity of Official Statisticians to work with Media but also strengthen capacity of media to work with official statistics. 	Ongoing

Key recommendations	Key elements	Progress/Initiatives	Gaps
 4. Leadership for coordination and mobilization, through a UN-led "Global Partnership for Sustainable Development Data" 	4.a. World Forum	- Following one of the main recommendations contained in the report entitled "A World That Counts", the Statistical Commission agreed that a United Nations World Data Forum on Sustainable Development Data (UN World Data Forum) would be the suitable platform for intensifying cooperation between national statistical offices and various professional groups, such as information technology, geospatial information managers, data scientists, and users, as well as civil society stakeholders. The United Nations World Data Forum , held every two years, addresses issues of interest to a broad constituency, incorporates innovative approaches to data and statistics and includes concrete recommendations or announce new initiatives. The first United Nations World Data Forum was held in January 2017 in Cape Town, South Africa. The second Forum was held in October 2018 in Dubai, United Arab Emirates, and the third forum will be held in October 2020 in Bern, Switzerland. ⁴¹	Ongoing
	4.b. Users forum		No initiatives have been identified that provide a "Global Users Forum for Data for SDGs".
	4.c. Partnerships and coordination	 The High-level Group for Partnership, Coordination and Capacity-Building for statistics for the 2030 Agenda for Sustainable Development (HLG-PCCB) was also established by the Statistical Commission in 2015 to provide strategic leadership for the sustainable development goal implementation process as it concerns statistical monitoring and reporting. A sub-group of the HLG-PCCB, led by Switzerland and Mongolia, prepared a paper covering issues that require stronger coordination within the United Nations statistical system, including different approaches and recommendations on how to achieve stronger coordination and establish a stronger voice for official statistics. 	Ongoing

⁴¹ <u>https://unstats.un.org/unsd/undataforum/index.html</u>

Key recommendations	Key elements	Progress/Initiatives	Gaps
4. Leadership for coordination and mobilization, through a UN-led "Global Partnership for Sustainable Development Data"	4.c. Partnerships and coordination	 In 2016, the Global Partnership for Sustainable Development Data (GPSDD) was established as a multi- stakeholder consortium in support of the data revolution for sustainable development, with strong support from the UN. The United Nations Deputy Secretary-General (DSG) continues to chair the board of the GPSDD. More actors have been invited to participate in the thematic debates at the Statistical Commission, with select non-governmental actors/UN agency representative also invited to speak. SDSN's "Counting on The World to Act" recommends a strong system of data governance, with an empowered national chief statistician working across government to ensure a supportive policy and regulatory framework for new data practices. The chief statistician should foster collaborations that produce higher- frequency and better-quality data, promote greater openness and availability of data, and advocate for effective cross-governmental 	
	4.d. Data sharing	 data systems to improve national efficiency. ⁴² The UN Global Platform is brokering public-private partnerships for data sharing. 	Data sharing – area for more work.
Exploit some quick wins on SDG data	SDGs analysis and visualisation platform	- In 2018, the Statistical Commission agreed to create a federated system of national and global data hubs for the SDGs to facilitate integration of different data sources, promote data interoperability, foster collaboration among partners from different stakeholder groups, including the geospatial community, and improve data flows and global reporting of the SDGs. The Open SDG Data hub makes data of the global SDG Indicators database readily available as geospatial data web services, suitable for the production of maps and other data visualizations and analyses, and easy to download in multiple formats. Its goal is to enable data providers, managers and users to discover, understand, and communicate patterns and interrelationships in the wealth of SDG data and statistics that are now available. ⁴³	Ongoing

 ⁴² <u>https://countingontheworld.sdsntrends.org/static/files/19COTW.pdf</u>
 ⁴³ <u>https://unstats-undesa.opendata.arcgis.com/</u>

Key recommendations	Key elements	Progress/Initiatives	Gaps
Exploit some quick wins on SDG data	A dashboard on the "the state of the world"	 The Global SDG Indicator Database provides access to data compiled through the UN System in preparation for the Secretary-General's annual report on "Progress towards the Sustainable Development Goals.⁴⁴ UNSD's SDG Country profile include visualization dashboard for selected indicators.⁴⁵ Other initiatives include SDG Index and Dashboards SDGs⁴⁶, UN Women's SDG Indicator Dashboard⁴⁷, SDG Gender Index ⁴⁸, among others. 	Ongoing

⁴⁴ <u>https://unstats.un.org/sdgs/indicators/database/</u>

 ⁴⁵ <u>https://country-profiles.unstatshub.org/</u>
 ⁴⁶ <u>https://sdgindex.org/news/behind-the-numbers:-joint-research-centre-audit-of-the-sdg-index-and-dashboards/</u>
 ⁴⁷ <u>https://data.unwomen.org/data-portal/sdg</u>
 ⁴⁸ <u>https://www.equalmeasures2030.org/products/sdg-gender-index/</u>

Annex 1. Key Recommendations from the 'A World That Counts' report

Recommendation 1: Develop a global consensus on principles and standards

UN develop a comprehensive strategy and a road map towards a new "Global Consensus on Data", building upon existing efforts in other domains, setting principles and agreeing standards to build trust and enable cooperation, including:

- a. Agree on and promote adoption of specific principles related to the data revolution
- b. Accelerate the development and adoption of legal, technical, geospatial and statistical standards (page 21 of the report⁴⁹)

Recommendation 2: Share technology and innovation for the common good

UN foster the establishment of a "Network of Data Innovation Networks" for sustainable development bringing together a range of partners and existing networks to generate knowledge and solve common problems. Some specific areas of activity include:

- a. Urgently leverage emerging data sources for SDG monitoring, through an 'SDG data lab'
- b. Develop systems for global data sharing
- c. Fill research gaps
- d. Create incentives (page 24 of the report⁵⁰)

Recommendation 3: New resources for capacity development

A proposal be developed for a new funding stream and innovative financing mechanisms to support the data revolution for sustainable development, for discussion at the "Third International Conference on Financing for Development", which will take place in Addis Ababa in July 2015. The proposal should be built on the following five pillars:

- a. Investment needs
- b. Managing funds
- c. Private sector participation
- d. Capacity development: A proposal to improve existing arrangements for fostering the necessary capacity development and technology transfer (including upgrading NSDS).
- e. Global data literacy: A proposal for a special investment to increase global data Literacy. (page 25)

⁴⁹ <u>https://www.undatarevolution.org/wp-content/uploads/2014/12/A-World-That-Counts2.pdf</u>

⁵⁰ https://www.undatarevolution.org/wp-content/uploads/2014/12/A-World-That-Counts2.pdf

Recommendation 4: Leadership for coordination and mobilization

The establishment of a "Global Partnership for Sustainable Development Data" to mobilise and coordinate as many initiatives and institutions as possible. The global partnership could promote several initiatives, such as:

- a. World Forum
- b. Users forum
- c. Partnerships and coordination
- d. Data sharing (page 26 of the report⁵¹)

Exploit some quick wins on SDG data: some **"quick wins"** on SDG data to demonstrate the feasibility of different approaches, experiment and innovate with partnerships and methods as a first step to setting up longer term initiatives. In addition to the proposed "SDG Data Lab", these could include:

- a. SDGs analysis and visualisation platform
- b. A dashboard on the "the state of the world" (page 27 of the report⁵²)

⁵¹ <u>https://www.undatarevolution.org/wp-content/uploads/2014/12/A-World-That-Counts2.pdf</u>

⁵² https://www.undatarevolution.org/wp-content/uploads/2014/12/A-World-That-Counts2.pdf