

Learnings and Insights from PlanAdapt's Participation in "Data for Climate Resilience Peer Learning" Network (PLN) Program Supported by Microsoft and the Open Data Institute

by Antonio Arce Romeo, Deepika Rawat and Nega Emiru Debela

1. Introduction

Data remains an important strategic asset and one of the most valuable resources any organization has in the 21st century. Data enables organizations to track and review the health of various business processes and essential systems in the modern era of business and data-driven world. In broader terms, data holds significant importance across mélange of key areas including, decision-making, problem solving, improving processes, and comprehending customers and stakeholders, that collectively contribute to the overall value creation and significance of data within organizations. Despite its importance, data management and governance has been constrained by various challenges that stretch across its collection, utilization, sharing, storage, etc. However, its potential benefits can be fully realized when data is properly managed and governed within the data ecosystem and value is added over time and space. Specifically, in the context of climate resilience, it is imperative to recognize the value of relevant data in informing and guiding planning and decision-making processes across various levels to effectively serve the betterment of humankind. Cognizant of this fact, the [Open Data Institute \(ODI\)](#) and Microsoft partnered to establish a collaborative initiative, "[Data for Climate Resilience Peer Learning](#)" program to bring together [diverse climate-focused organizations](#) that are working to collect, share and/or use data in the climate resilience and sustainability space.

The participant organizations consisted of six organizations namely, [Women Income Network](#), [Global Partnership for Artificial Intelligence](#), [Gender and Environment Data Alliance](#), [DataKind](#), [South African Cities Network](#), and PlanAdapt. The organizations received guidance from data and sector experts, funding and other support to enable them improve data practice and increase data sharing with opportunities to connect with peers. In this PLN program, PlanAdapt partnered with ODI and Microsoft whereby its three [Fellows/Project team](#) (Antonio Arce Romeo, Deepika Rawat and Nega Emiru Debela) participated in the learning program. The program involved structured sessions by ODI experts and presentations from invited guests which exposed participants to learnings and exposure to experiences from various peer organizations working on various aspects of data management. The use of data in the field of water resilience and built environment was the main focus of expert sessions facilitated by [ARUP](#) and [the Royal Institution of Chartered Surveyors \(RICS\)](#). The key learnings from the overall program can be summarized into the following four key areas which enhanced our understanding in various areas of data management and governance.

2. Key learnings from the structured sessions

a) Increasing importance of data sharing for an organization in a data-driven world

One of the key learnings from the PLN program was the increasing importance of data sharing for organizations in the current data-driven world. The program defined data sharing as the process of making the same data resources available to multiple applications, users, or organizations. It underlined the role of technologies,

practices, legal frameworks, and cultural elements in order to facilitate secure data access for multiple entities without compromising data integrity. However, it was acknowledged that data sharing comes with its own risks including issues of privacy disclosure, data misinterpretation and low data quality.

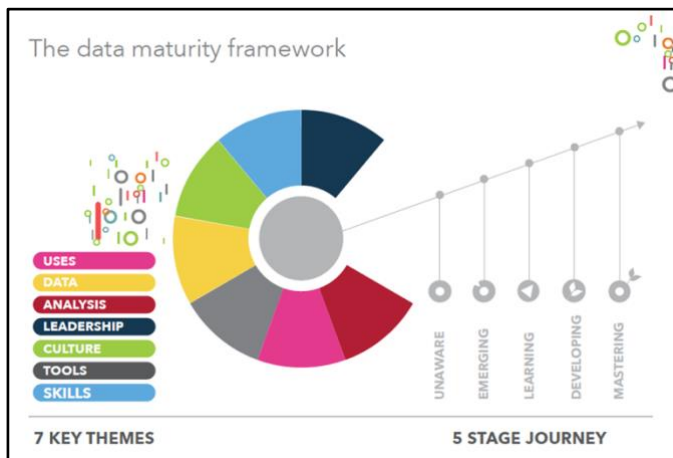
The structured session on Value of Data Sharing clearly highlighted the vital role of data access and sharing in organizational processes. While acknowledging the risks and opportunities of shared data remains integral to the process, data sharing improves efficiency within an organization and data ecosystem fostering collaboration among stakeholders and actors within an ecosystem. It is recognized that data sharing offers better value for stakeholders, enhanced data-driven decision-making and positive social impact. It helps to unlock the value of data in ways that will help address a variety of social, environmental and economic problems. From analysis of its growth of the data economy, the European Commission has estimated that the [European Union \(EU\) data economy](#) was worth €300bn in 2016, and which increased to €739bn in 2020. It was emphasized that businesses, governments and civil society need to work together to build an open, trustworthy data ecosystem that maximizes the value of data, while mitigating potential harms. Moreover, examples of initiatives from the banking, energy and agriculture sectors focused on improving access to data in order to create value for the ecosystem were shared to participants through a resources pack to highlight the importance of data sharing.

One important aspect of data sharing highlighted was the one in the [private sector space](#). ODI published a case study on the "The Value of Data Sharing in the Private Sector" that demonstrates data sharing challenges common across different themes in the private sector. These challenges among others include data discovery and finding relevant data, data control and access among multiple competing stakeholders, trust in data quality, transparency issues, lack of business cases that support greater degrees of data sharing, and effective legal use of personally identifiable data. These are identified to be the barriers faced by private sector businesses in justifying sharing data to realize the benefits derived for all businesses from sharing data. In this regard, Microsoft's new [Open Data Campaign](#), which seeks to bring about and support data collaborations that address significant social, economic and environmental challenges, was mentioned to be an exemplary initiative to make available data resources among the wider beneficiaries.

b) Role of continuous data maturity assessment in creating value and enhancing organizational performance

One important lesson drawn from the PLN program is the increasing need and role of continuous data maturity assessment in enhancing organizational performance. Data maturity assessment represents a measurement that demonstrates the level at which an organization or a business makes the most out of its data resources. It is firmly believed that to achieve a high level of data maturity, data must be firmly embedded throughout organizational processes and fully integrated into all decision-making and activities.

Through the PLN program, learning participants were introduced to different data maturity models including the Data Orchard Maturity Framework, Dell Data Maturity Model, Gartner Data Maturity Model, Snowplow Data Maturity Model, and Royal Society Delve Model. Following that introduction, participants were guided to exercise data maturity assessment using [Data Orchard's Data Maturity Framework](#). With this exercise, the PlanAdapt team assessed the [data maturity level of the organization](#) against seven established standard data maturity themes or criteria - Uses, Data, Analysis, Leadership, Culture, Tools and Skills. The assessment results highlighted the specific areas of strengths and opportunities in making the best use, management and



governance of data. More importantly, the exercise highlighted the potential of the maturity assessment tool to improve data governance and enhance organizational performance through data and evidence driven decision-making. Results were further shared and presented to the wider PlanAdapt community in order to enhance awareness on data maturity assessment and its role to improve use and management of data resources.

c) Critical role of Data Ecosystem Mapping (DEM) for data value creation

One of the structured sessions during the PLN program was on Data Ecosystem Mapping exercise. This exercise involved creating a visual representation of the various actors and/or stakeholders within a data ecosystem and illustrating the directional flows of value exchange among them. In simpler terms, a data ecosystem consists of individuals, communities, and organizations that are actively involved in managing data, extracting valuable insights from it, making informed decisions, influencing related activities, or being affected by them. Data ecosystems encompass the essential components of data infrastructure, including valuable data assets, standards, technologies, policies and the organizations that steward and contribute to them. It was highlighted that a data ecosystem map can serve multiple purposes, such as:

- Collaborate with other stakeholders for organizational/ecosystem change
- Explore and leverage new sources of data to improve internal operations
- Exploit existing data flows to drive new services or enhance existing services
- Inform and guide project to build a data-enabled service
- Identify where changes are needed, and assess their potential implications

Following the session, the participants received guidance to conduct Data Ecosystem Mapping (DEM) on specific projects where PlanAdapt team engaged in a case study on “[Socially Just and Adaptive Community Spaces in Poor Urban Settlements in India and Colombia](#)”. The team undertook the task of [identifying and mapping diverse actors within the ecosystem, charting the exchanges of both formal and informal value, and recognizing potential avenues for enhancing the data-sharing process](#), facilitated by the utilization of the [kumo.io](#) online mapping tool. Through this undertaking, the participants came to acknowledge the substantial potential of DEM in enhancing data value within the data ecosystem and beyond that may transcend to positively impacts on the society, economy and the environment.

d) Vital role of responsible data stewardship as a tool for improved access

Data stewardship remains an important area of data management. In this regard, it was highlighted that responsible data stewardship is an on-going, holistic process of engaging with the ways data can be stewarded for public benefit, understanding and mitigating the ways that data stewardship can produce harm, and examining and challenging how data stewardship can redress structural inequalities. It refers to the ethics by

which people could be empowered to inform, shape and even govern the ways that we collect, use and share data about them, or that may be used to impact their lives in some way. So, participants were introduced to the need for sustainable data stewardship model which ensures organizations to have business and revenue models that support the continued sustainability of their data activities. Therefore, it was widely understood that sustainable, responsible and participatory data stewardship is critical to realize the benefits actors within a data ecosystem can gain from data resource.

3. What have we learnt from other participants?

Throughout our participation in the Peer Learning Network (PLN), we had the privilege of engaging with and learning from a diverse group of organizations, including Women Income Network, Global Partnership for Artificial Intelligence, Gender and Environment Data Alliance, DataKind, and South African Cities Network. The collective knowledge and experiences shared by these participants have been instrumental in expanding our understanding of the role of data in various domains and fostering collaboration for mutual learning and growth.

One of the key takeaways from the experiences shared by other PLN participants was the diverse role that data play across different sectors. This exposure provided us with valuable insights into how data serves as a catalyst for research and development, contributes to project development, informs policy and decision-making, and facilitates transfer of knowledge through shared experiences. Understanding the multifaceted nature of data in these contexts has broadened our perspective and inspired us to explore innovative approaches within our own endeavors at PlanAdapt. Of particular significance was the presentation by ARUP on resilience assessment, which shed light on the pivotal role of integrated data in implementing the [OurWater, City Water Resilience Approach](#) and the [Global Sponge Cities Snapshot](#) approaches. In view of critical utilization of these tools in assessing cities' resilience to water-related challenges, their adaptation in our work may provide gained understanding the intricate dynamics of a city's water landscape.

Collaboration emerged as another significant learning from our interactions with other PLN participant organizations. The power of collaboration, responsible data practices, and capacity building became evident through the group discussions held during plenary and breakout sessions. Collaborative efforts enable organizations to leverage collective knowledge, resources, and expertise, fostering synergy and enhancing the impact of data-driven initiatives. We have gained valuable insights into how collaborations can unlock new opportunities, address complex challenges, and achieve common goals.

Furthermore, the network has highlighted the importance of identifying common themes and shared learnings. By recognizing and understanding the areas where our experiences and challenges align, we have discovered opportunities for future potential collaborations and partnerships. Building on these shared learnings, we can leverage each other's strengths and expertise to drive innovation and create positive social impact through effective and responsible use of data. We are grateful for the knowledge transfer, collaborative spirit, and capacity building opportunities provided through the PLN, and we look forward to continuing our engagement with these organizations and others to further advance the use of data for the benefit of society.

4. What do we plan to do next with what we have learnt?

We intend to disseminate the insights and resources acquired through the PLN sessions to a broader audience within the PlanAdapt network. In addition, we aim to leverage the tools and resources obtained from the PLN to inform and guide the formulation and execution of our data strategies for forthcoming projects on climate adaptation and resilience, while also encompassing other relevant areas. Through the employment of the DEM methodology, we aim to shed light on considerations necessary for effectively addressing challenges in a data ecosystem and reap subsequent benefits. Additionally, we acknowledge that a deeper comprehension of the complexities inherent in the data ecosystem can play a pivotal role in seizing emerging opportunities, particularly in our pursuit of securing funding and establishing collaborations with new partners.

Furthermore, based on our first-hand experience and careful observation of the data maturity assessment, we have come to appreciate its comprehensive nature, addressing data maturity aspects at both project-specific and organizational level processes. It became evident that the initial grasp of the assessment, whether received or anticipated, varied among participants based on their exposure and experience with PlanAdapt's projects. While we recognize the subjective nature of individual perspectives when responding to the assessment questions, we firmly believe that this exercise holds a good starting point with immense potential for cultivating organizational learning. Therefore, we aim to conduct an internal survey aimed at gaining a deeper understanding of the data flows, assets, practices, and skills and identifying opportunities for enhancing data-related capacities within our [Climate Co-Adaptation Lab](#), a collaborative, bottom-up innovation and learning space. The [organizational model of PlanAdapt](#) is structured around a fellowship program designed to attract professionals from diverse sectors and disciplinary backgrounds, who are engaged in advancing knowledge on climate resilience and adaptation. Bearing in mind PlanAdapt's decentralized nature and its involvement in projects on ad-hoc basis, the internal DEM and data maturity assessment exercises may be utilized to inform organizational decisions and provide strategic recommendations manageable within the capacity and scope of the organization.

Lastly, we recognize the heightened importance of upholding ethical principles and therefore, will commit to seek to explore and adopt to responsible means to ensure the ethical integrity of our data practices at all the stages of data collection, analysis, utilization, sharing, and governance. In view of increasing PlanAdapt's involvement in data and Artificial intelligence (AI), we would like to engage more with one of the PLN participating organization, DataKind, for potential collaboration on Data science and AI. To end with, we would also like to continue our engagement with the ODI, Microsoft, and all the other peers in the future.

Acknowledgement

The PlanAdapt team would like to extend its gratitude for ODI and Microsoft for enabling our participation in this PLN learning program which enhanced the team's awareness on data governance. Moreover, we thank the participating organizations for sharing their knowledge and experiences on data management related to climate resilience.