

Republic of the Philippines
NATIONAL INNOVATION COUNCIL

FY2024 Innovation Grants
TERMINAL REPORT

I. General Information

Program/Project Title:	Development of the Minimum Viable Product (MVP) Phase 2 of the Data Observatory Philippines
Implementing Entity:	Development Academy of the Philippines
Head of Implementing Entity:	Magdalena L. Mendoza Officer-in-Charge
Project Leader:	Jennifer Gayle G. Flores-Ragos
Project Focal:	Nissa Mariel M. Caderaao
Mailing Address:	DAP Bldg., San Miguel Ave., Ortigas, Pasig City
Telephone Number:	(02) 8631-0921 local 103
Email Addresses:	caderaon@dap.edu.ph
Website:	https://dap.edu.ph/

Partner Entities and Nature of Partnership Agreement (if applicable):	Philippine Statistics Authority (MOA)		
Scale of Implementation:	☒ National ☐ Inter-regional ☐ Regional ☐ Local		
Location/s of Implementation:	DAP Bldg., Ortigas, Pasig City		
List of Beneficiaries:	Whole-of-government		
Project Duration (no. of months):	11 months		
Project/Program Start Date		Project/Program Completion Date	
Originally Planned (as indicated in the proposal)	Actual	Originally Planned (as indicated in the proposal)	Actual
January 1, 2024	January 1, 2024	September 30, 2024	November 30, 2024

Total Approved Budget (as indicated in MOA)	Total Utilized Budget (as of project completion date)
PHP4,500,000.00	PHP4,295,490.75

Project Description (max. 350 words):	With its recent attachment to the National Economic and Development Authority (NEDA), the mandate of the Development Academy of the Philippines (DAP) has been renewed, with a heightened focus on building the capacity of the government in implementing the Philippine Development Plan (PDP) 2023-2028. This strategic alignment affirms DAP's ability to pioneer innovations aimed at enhancing both local and national governance. Laying the groundwork for public sector innovation involves strengthening the government's data and artificial intelligence (AI) capabilities, which are cornerstones of digital transformation (DX) today. Central to this is the vision of building a <i>data-centric government</i>, where data serves not only as a resource or asset, but as the primary driver for developing a digital government. To support this vision, the DAP, led by its Center for Strategic Futures – Data and Artificial Intelligence Laboratory (CSF-DAIL), is developing the DAP Data Observatory Philippines (DOPh). It is a data platform that will serve as the government's central resource hub for not only retrieving public sector data but also enabling users to <i>explore</i> and <i>compute</i> with it for mainstreaming <i>data use and reuse</i>. These value-adding capabilities set DAP's platform apart from others, positioning it as a dynamic tool that strengthens public sector intelligence in policymaking and planning, drives innovation across sectors, and delivers other meaningful public values. Once fully operational, the DAP-DOPh will optimize three critical processes: (1) facilitating data flow and simplifying access for decision-makers in the government, (2) accelerating the transformation of data into actionable insights to guide public policy and planning, and (3) empowering users to explore and experiment with data, thereby fueling innovation and creativity across sectors.
---	--

II. Project Performance and Results

Objective Statement: To develop a premier data platform facilitating data access, sharing, and re-use for data-driven public policy and planning.

Provide details below as stated in your latest approved Form 3: Work and Financial Plan. Please also attach latest Physical Accomplishment Report as reference.

Specific Objective 1: Data Sharing: Pioneer policy- and technology-driven public and private sector data sharing for data reuse				
Outcome Indicator: Established data sharing ecosystem in the Philippines				
Activity/Physical Accomplishment	Output Indicator	Target	Actual	Remarks ¹
1.1 Initiation of partnerships with data-producing agencies in the government for data sharing	No. of government-to-government data sharing partnerships officialized through a Memorandum of Agreement (MOA)	2	1	The MOA Signing with the Philippine Statistics Authority (PSA) took place on 30 January 2025 at the PSA Headquarters, PSA Complex, East Ave., Diliman, Quezon City. This accomplishment is reported in Q1 2025. The MOAs for DOE and PCO are currently under final review.
1.2 Initiation of partnerships with private sector organizations for data sharing	No. of business-to-government data sharing partnerships officialized through a Memorandum of Agreement (MOA)	-	-	<i>This activity commitment is removed following DAP's Request for Project Modification.</i>
1.3 Creation and implementation of data policies and enabling frameworks for establishing digital trust	No. of Operational Documents drafted in compliance with industry standards	3	3	

Specific Objective 2: Specific Objective 2: Data Access: Provide user-specific access for seamless and contextualized data search and discovery

Outcome Indicator: Enhanced access to public and private sector data

Activity/Physical Accomplishment	Output Indicator	Target	Actual	Remarks ¹
2.1 Developed DOPh MVP Phase 2 with functional data search and discovery features ready for User Acceptance Testing (UAT)	Publicly deployed DOPh MVP Phase 2 with "Search" and "Discover" features	1	1	
	UAT Report: DOPh Search and Discover	1	1	

Specific Objective 3: Data Intelligence: Improve public policy and planning through data intelligence features facilitating advanced data exploration and insight generation

Outcome Indicator: Improved information-processing capability of the government and the public

Activity/Physical Accomplishment	Output Indicator	Target	Actual	Remarks ¹
3.1 Developed DOPh MVP Phase 2 with functional data exploration and computational features ready for User Acceptance Testing (UAT)	Publicly deployed DOPh MVP Phase 2 with "Explore" and "Compute" features	1	1	
	UAT Report: DOPh Explore and Compute	1	1	

¹ Please indicate reasons if progress/output is below target.

a. **Executive Summary of Project Implementation**

*Provide a summary of the project implementation (maximum of 500 words).
Optional: You may submit a detailed narration of your project implementation in a separate document.*

The DAP-DOPh is being developed to serve as a trusted and secure data platform, supported by robust policies and frameworks. The project's execution focuses on two primary areas: (1) Partnerships and Policy Development, which addressed institutional collaboration and governance frameworks as part of commitments under Specific Objective 1, and (2) MVP Development, which established the platform's foundational technical capabilities as part of commitments under Specific Objectives 2 and 3.

Partnerships and Policy Development

Inter-organizational data sharing remains a complex and evolving landscape. To overcome legal and technical barriers, the DAP pursued strategic partnerships with key government agencies. As of February 2025, the following milestones have been achieved:

- **Philippine Statistics Authority (PSA):** A Memorandum of Agreement (MOA) was signed on January 30, 2025, granting DAP access to official statistics.
- **Department of Energy (DOE):** An MOA is undergoing final review, with signing expected in March 2025.
- **Presidential Communications Office (PCO):** An MOA is undergoing final review, with signing expected in March 2025.

Additionally, three key policies were drafted to establish digital trust: **Open Data Policy, Data Governance Policy & Framework, and Infrastructure Governance Policy & Framework.** These policies provide structured guidelines for data accessibility, quality assurance, and compliance.

MVP Development

The DAP-DOPh MVP focuses on data search, discovery, exploration, and computational capabilities. Efforts have been directed toward:

- Securing primary data access from partner agencies.
- Building core platform features, including metadata indexing and interoperability mechanisms.
- User Acceptance Testing (UAT) to refine functionalities.

A detailed Project Implementation Report is attached herewith for reference.

b. **Timeline of Major Activities**

Indicate major activities/milestones of the project (e.g., signing of MOA) and its corresponding dates in the table below:

Date	Activity
January 25, 2024	1st Monitoring Visit for the NEDA FY2023 Innovation Grants: DAP-DOPh MVP Phase 2 Development Project 2A DAP Bldg., San Miguel Ave., Ortigas, Pasig City
April 16, 2024	DAP-PSA: Exploratory Meeting on Proposed Data Sharing Partnership PSA Headquarters, Diliman, Quezon City
July 31, 2024	2nd Monitoring Visit for the NEDA FY2023 Innovation Grants: DAP-DOPh MVP Phase 2 Development Project 2A DAP Bldg., San Miguel Ave., Ortigas, Pasig City
August 2, 2024	DAP-DOE: Exploratory Meeting on Proposed Data Sharing Partnership Energy Center, 34th St., Rizal Drive, Bonifacio Global City, Taguig City
August 2, 2024	Consultation on DOPh Content Integration with DAP Education & Training Programs 2A DAP Bldg., San Miguel Ave., Ortigas, Pasig City
December 3, 2024	DAP-DOPh MVP Phase 2 User Acceptance Testing 2A DAP Bldg., San Miguel Ave., Ortigas, Pasig City
December 5, 2024	3rd Monitoring Visit for the NEDA FY2023 Innovation Grants: DAP-DOPh MVP Phase 2 Development Project 2A DAP Bldg., San Miguel Ave., Ortigas, Pasig City
January 30, 2025	DAP-PSA Final Meeting: Discussion of PSA's Terms for the MOA PSA Headquarters, Diliman, Quezon City
January 30, 2025	DAP-PSA Data Sharing Partnership: MOA Signing PSA Headquarters, Diliman, Quezon City

c. **Line-Item Budget (LIB)**

Only indicate the total per allotment class in the table below. Please attach the latest Financial Accomplishment Report as a reference.

Allotment Class	Originally Approved LIB	Latest Approved Modified LIB	Actual Expenses	Remarks ²
I. Maintenance and Other Operating Expenses	4,500,000.00	4,500,000.00	PHP4,295,490.75	Variable expenses were not fully utilized. See Latest Work and Financial Plan and PFAR Q1 2025.
II. Capital Outlay	N/A	N/A	N/A	N/A

d. **List of Equipment Purchased** (including semi-expendable equipment)

Provide copies of relevant documents, such as the Property Acknowledgment Receipt and photos of property tags on the acquired equipment.

² Please indicate reasons if there are differences in the approved LIB and actual expenses.

Item	Qty.	Unit Value	Date Acquired	Property No.	Name of Supplier
N/A	N/A	N/A	N/A	N/A	N/A

e. **List of Consultancy Services** (if applicable)

Provide copies of relevant documents, including the consultancy contract and documentation of outputs or deliverables.

Consultancy Service Provided	Name of Consultant/ Company	Cost	Duration (inclusive dates)	Output/s
Project Management	Nissa Mariel M. Caderao	PHP2,151.36 – PHP2,422.73/day	January 1 to November 30, 2024 (22 days)	All project documentations as required by DAP and NEDA
Data Platforms Development	Eduardo D. David, Jr.	PHP1,710,000.00	June 10 to October 9, 2024	Detailed Work Plan (Gantt Chart) Technical Requirements Matrix Documentation: DOPh System Architecture Design Activity Report/Documentation on DOPh Data Integration and Ingestion Capability Development Activity Report/Documentation on DOPh Feature Engineering Activity Report/Documentation on DOPh Data Governance and Security Policy (or Framework) Working Draft of the Data Governance Policies to be observed by developers and users UAT Report on Data Infrastructure Publicly deployed DOPh showcasing all its expected features and functions Code files and other supporting materials for the DOPh
Data Analytics	Jude Michael M. Teves	PHP990,000.00	June 10 to October 9, 2024	Activity Report/Documentation on DOPh Data Model Development Activity Report/Documentation on DOPh Data Model Testing and Quality Assurance Report

Consultancy Service Provided	Name of Consultant/ Company	Cost	Duration (inclusive dates)	Output/s
				UAT Report on Data Models (Search, Explore, Discover, Compute) Code files and other supporting materials for the DOPh
User Experience Design	Lawrence C. Loyola	PHP300,000.00	June 10 to October 9, 2024	User Research Report Wireframes and interactive prototypes showcasing the improved user interface and experience of the DOPh in PDF, Sketch, Adobe XD, Figma, or any preferred file format Design Annotations and other supporting design resources (i.e., branding, style guides) UAT Report on Data Infrastructure Publicly deployed DOPh showcasing all its expected features and functions Code files and other supporting materials for the DOPh

f. **List of Personnel Hired for the Project** (if applicable)

Name of Project Personnel	Position	Monthly Salary	Contract Period
Alan S. Cajés, PhD	Center Head, CSF	PHP20,000.00/day	January 1 to September 30, 2024 (5.5 days)
Jennifer Gayle G. Flores	Program Manager, CSF	PHP7,000.00/day	January 1 to September 30, 2024 (49.5 days)

g. **List of Travels** (if applicable)

Activity and Purpose	Location	Inclusive Dates	List of Personnel
N/A	N/A	N/A	N/A

h. **List of Major Accomplishments**

Provide a list of major accomplishments or successes of the project (e.g., 10 MSMEs trained in Data Analytics from Brgy. San Antonio, Pasig City).

- One (1) AI-enabled data platform with four core features developed

- Three (3) operational documents produced to support DAP-DOPh's implementation and establish digital trust
- One (1) data-producing agency successfully onboarded as a data sharing partner, with two (2) additional agencies in the pipeline

i. **Alignment with the Philippine Innovation Act and responsiveness to its strategic priorities and objectives**

Please refer to the submitted Form 1: Grants Application Form and narrate the project's specific and significant contributions to advancing the strategic priorities and objectives of the Philippine Innovation Act. (Maximum of 500 words)

DAP-DOPh exemplifies the Philippine Innovation Act's goals by modernizing data platform promoting public sector intelligence, digital transformation, and cross-sector collaboration. As an interoperable data platform, DAP-DOPh strengthens the country's innovation ecosystem by contributing significantly to the following priority areas:

- **Public Sector Innovation:** DAP-DOPh enhances data governance and evidence-based policymaking and planning by equipping the government with an advanced data platform. By breaking down silos and facilitating interagency collaboration, DAP-DOPh supports proactive and responsive governance, enabling policymakers to anticipate trends and craft data-driven solutions for national development challenges.
- **Technology Programs:** As a pioneering digital initiative, DAP-DOPh integrates artificial intelligence (AI), machine learning, and geospatial technologies to generate insights from public sector data. It serves as a sandbox for innovation, allowing agencies and researchers to test and refine data-driven solutions. Through predictive analytics and real-time monitoring, DAP-DOPh advances technological research and development, equipping policymakers with actionable intelligence for economic and development planning.
- **Technology Platforms:** Designed as a scalable and API-enabled platform, DAP-DOPh consolidates government data into an integrated system, ensuring seamless access, interoperability, and usability. Its Search, Discover, Explore, and Compute features allow users to interact with structured datasets, filter information, customize visualizations, and compute with data.
- **Innovation Networks:** DAP-DOPh fosters cross-sector collaboration by connecting government agencies, academia, industry, and civil society through open data initiatives and data-sharing.

j. **Socioeconomic Impact**

Please refer to the submitted Form 1: Grants Application Form and narrate the project's specific and significant contributions to the Philippine Development Plan 2023-2028, as well as its role in advancing the United Nations Sustainable Development Goals. (Maximum of 500 words)

As one of DAP's contributions to the national strategies of the PDP 2023-2028, the DAP-DOPh will provide the government with broader access to data and improve its overall information-processing capability, which it needs in strengthening and innovating its policies and programs. Specifically, the DAP-DOPh aligns with strategies on broadening public access to information (Outcome 1) and rationalizing and strengthening government functions, systems, and mechanisms (Outcome 3) as stated under Chapter 14 (Practice Good Governance and Improve Bureaucratic Efficiency) and nurturing a supportive environment for research and development (R&D) as stated under Chapter 10 (Advance R&D, Technology, and Innovation).

With its vast potential, DAP-DOPh also has the capacity to advance the SDGs, particularly in the following key areas:

- **SDG 8: Decent Work and Economic Growth** – DAP-DOPh has the potential to enhance economic planning and policymaking by providing reliable and accessible public sector datasets that can help identify market trends, productivity patterns, and economic growth drivers.
- **SDG 9: Industry, Innovation, and Infrastructure** – DAP-DOPh has the potential to boost industrial competitiveness by making high-quality, open datasets available to researchers, innovators, and businesses. This access can drive technological advancements, evidence-based innovation policies, and the development of science and technology-driven solutions that can accelerate industrial growth and infrastructure modernization.
- **SDG 16: Peace, Justice, and Strong Institutions** – Through its data-driven decision support tools and real-time monitoring capabilities, the DAP-DOPh can improve public sector efficiency, reduce corruption risks, and foster public trust in institutions. Additionally, DAP-DOPh can strengthen interagency coordination and crisis response, ensuring that government stakeholders have the data they need to collaborate effectively, address emerging challenges, and implement timely, evidence-based solutions.
- **SDG 17: Partnerships to Achieve the Goal** – DAP-DOPh has the potential to foster multi-sector collaboration by creating a data-sharing ecosystem that connects government agencies, academia, industry, and civil society. By facilitating public-private partnerships, research initiatives, and capacity-building efforts, DAP-DOPh helps reinforce the role of data as a strategic enabler of sustainable development. Furthermore, by aligning with national and international data standards, DAP-DOPh can promote interoperability and cross-border cooperation, ensuring that the Philippines remains competitive in the global data economy.

k. Lessons Learned

Issues	Solution
Importance of Hiring a User Experience (UX) Designer Experienced in Developing Data Platforms The UX Designer hired for the project faced challenges in aligning the platform's user interface/user experience (UI/UX) with its technical features. Specifically, designing within the capabilities of Apache Superset proved difficult, as some design elements required extended development time or were not feasible within the platform's framework. This mismatch resulted in delays and necessitated compromises in the final design.	In the next phase, the CSF-DAIL will prioritize hiring UX Designers with experience in developing data platforms, especially those familiar with data visualization and technical tools and frameworks being utilized (e.g., Apache Superset). Additionally, integrating the UX Designer earlier in the project lifecycle can allow for closer collaboration with technical teams to ensure design feasibility and efficiency.
Difficulty in Executing Interorganizational Data Sharing Partnerships Securing interorganizational data sharing agreements was challenging due to difficulty in scheduling meetings with prospective partners and the extended time required for legal teams to review and approve MOAs. These delays hampered progress and introduced bottlenecks in the project timeline.	To address these challenges, it is recommended that early engagement with partners and their legal teams to establish expectations and timelines for agreement reviews. Additionally, the CSF-DAIL plans to use the DAP-PSA MOA as a standard template for all its future partnerships to help streamline the legal review process. Establishing strong relationships with partner organizations and designating liaisons for more efficient communication will also expedite the partnership process.
Importance of Establishing an Internal Pool of Experts The project heavily relied on external consultants due to the specialized expertise required. However, this reliance posed challenges in knowledge transfer and sustainability. Building an internal team was deemed difficult due to the high costs associated with hiring and retaining experts with the necessary qualifications.	In the next phases, the CSF-DAIL will explore strategies for gradually developing an internal pool of experts. This could include providing training and development opportunities for existing staff, offering competitive compensation packages for highly skilled professionals, and fostering partnerships with academic and training institutions to cultivate talent pipelines. A phased approach, combining internal capacity-building

	and selective external consultancy, may strike a balance between cost and expertise.
--	--

l. Program/Project Sustainability (if any)

If applicable, briefly narrate future action plans to enhance or sustain the project after its completion and/or implementation period. (Maximum of 500 words).

Ensuring the long-term sustainability of the DAP-DOPh requires strategic planning for funding, user engagement, and operational continuity. The sustainability plan focuses on securing resources and embedding the platform within DAP's programs and initiatives.

Funding Strategy:

The initial phases of the DAP-DOPh were financed through the GAA allocated by the DBM and the FY2023 Innovation Grants from the NEDA. To support future development and scaling, the following strategies will be adopted:

- **Identifying Alternative Funding Sources:**

The CSF-DAIL is actively preparing a list of potential funders, including local and international organizations, to secure a larger budget and extended development timeline. This proactive approach aims to reduce dependence on single funding sources and diversify financial support.

- **Institutionalizing the DAP-DOPh as a Regular DAP Program:**

After completing Phase 3, the CSF-DAIL plans to submit an application to DBM to include the DAP-DOPh as a regular DAP program under the GAA. This will ensure consistent annual funding for the platform's operations, maintenance, and enhancement.

Establishing a Revenue Model:

The CSF-DAIL will establish a reasonable rate structure for users (preferably, government agencies and units) that utilize the premium features of DAP-DOPh. Revenue generated from these rates will contribute to funding the platform's continued operations.

By aligning the DAP-DOPh with DAP's broader mission and institutional activities, this plan ensures its operational and financial sustainability while maximizing its value to users and stakeholders.

m. Documentation

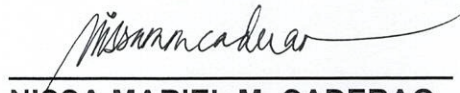
Provide copies of photographs, videos, news, magazine or journal articles, websites or other communication media produced either in print, electronic, or social media forms. This may also include published patent information, if

applicable. Please upload in a cloud storage and send the link to innovationfund@neda.gov.ph.

n. **Attachments**

1. Latest Physical Accomplishment Report
2. Latest Financial Accomplishment Report
3. Copies of Reports of Checks or ADAs Issued and/or Reports of Disbursement
4. Copy of FAR No. 6 (Statement of Approved Budget Utilizations, Disbursements and Balances for Trust Receipts) (if applicable)
5. Detailed Report of Project Implementation (if available)

Prepared By:


NISSA MARIEL M. CADERA
Project Manager, CSF-DAIL
Alternative Project Focal
Date Signed:

Recommending Approval:


ARMAND TRISTAN R. SURATOS
Officer-in-Charge/Director, CSF
Date Signed:

Approved By:


MAGDALENA L. MENDOZA
Officer-in-Charge, DAP
Date Signed