



**2ND TRACKING WORKING GROUP OF THE
PARIS AGREEMENT
ARTICLE 6 IMPLEMENTATION PARTNERSHIP**

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World Bank Climate Warehouse Program Under PMIF:

Building an End-to-End Digital Ecosystem for Carbon Markets



Pillar 1: Piloting and Developing Global Public Goods

Making digital infrastructure for carbon markets available to client countries through development, testing and prototyping of innovative digital infrastructure for carbon markets.

- **Monitoring, Reviewing and Verification (MRV) systems.**
- **National Carbon Registries.**
- **Tokenization instruments.**
- **Climate Action Data Trust (CAD Trust).**

→ **Digital for Climate (D4C) Working Group.** Collaboration with EBRD, UNDP, UNFCCC, IETA, ESA for a modular and interoperable end-to-end digital ecosystem for carbon markets.



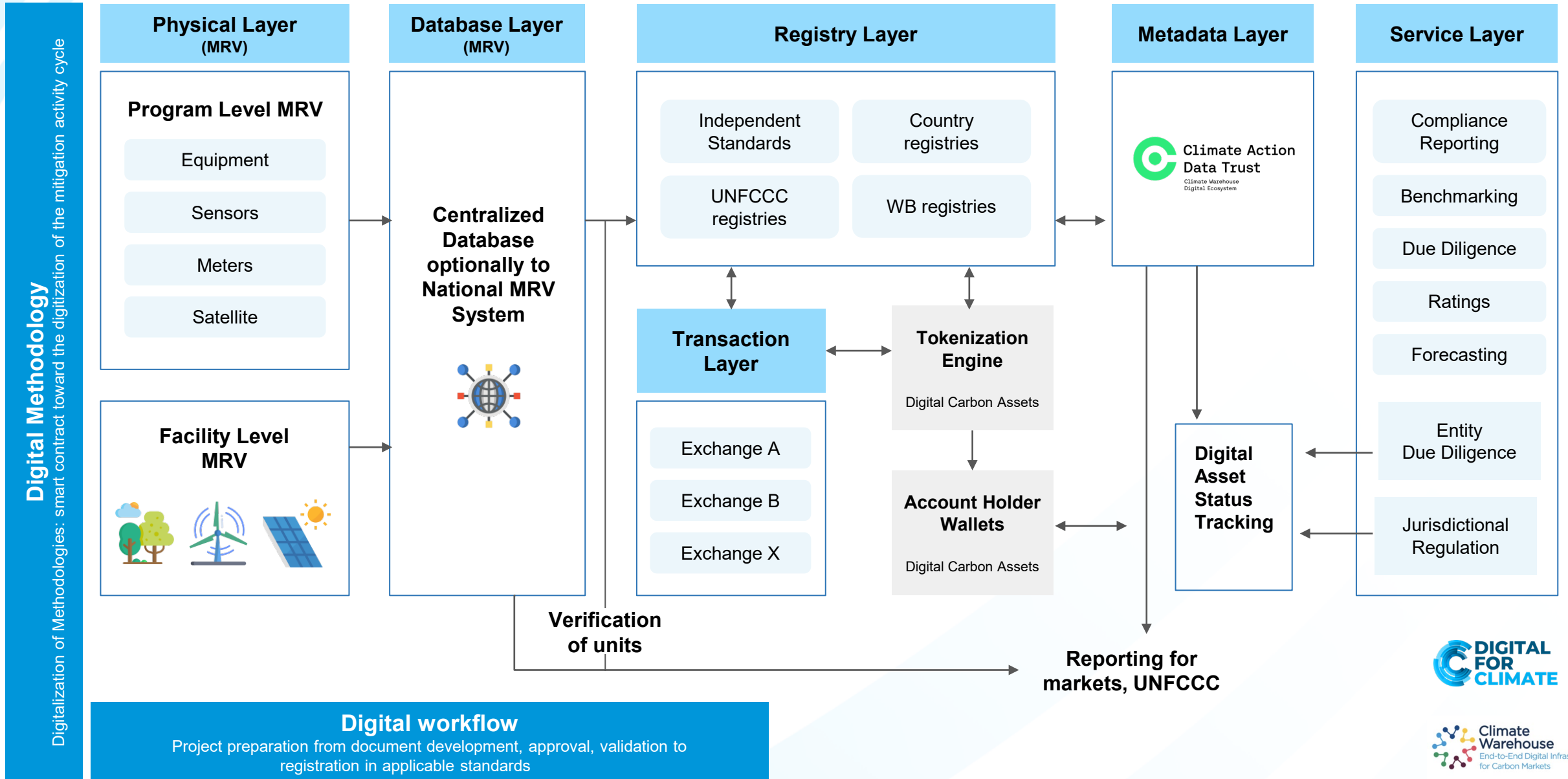
Pillar 2: Global Knowledge and Capacity-Building

Support countries and jurisdictions to in implementation of digital infrastructure for carbon markets needed for GHG mitigation and NDC implementation.

- **Develop** knowledge base on digital infrastructure and facilitate information exchange through technical discussions and knowledge dissemination
- **Assist** countries to identify and implement best practice approaches and, where relevant, achieve compatibility in design to support the development and linking of digital infrastructure for carbon markets
- **Encourage** international and national cooperation, and inform the domestic and global policy discussions on GHG mitigation by sharing lessons learned and providing a platform for collective innovation on digital infrastructure products



Building End-to-End Digital Solutions to Streamline Carbon Asset Development & Trading





Product Line – Available Opensource Carbon Markets Infrastructure

1. Data Management System (MRV for article 6) – system to track and manage various data types and data flows related to carbon units and emissions reductions, ensuring that they are accurately measured, reported, and verified.

2. National Carbon Registry – system to track and record carbon credits and facilitate transactions of these credits.

3. Tokenization Engine – system to issue digital carbon assets and conduct transactions through credentialed wallet systems.

4. Climate Action Data Trust – global platform that aggregates and harmonizes carbon market data and connects registries across the world

World Bank offers a data management system (DMS) that supports the data collection and aggregation at project, sector and national level.

Digital for Climate (D4C) offers three opensource registries: WB Core Registry, WB Enhanced Registry, UNDP Registry.

World Bank designed a tokenization engine, which was piloted by market participants. It is currently available opensource in the D4C page.

World Bank supports the onboarding of country national registries to Climate Action Data Trust.

Multiple pathways are emerging for countries to meet their Article 6 reporting requirements

- Countries are considering different market infrastructure options for reporting and tracking to support their participation. These range from simple to complex configurations depending on factors such as level of carbon market activities, available resources, and plans to implement domestic carbon pricing instruments.



Different options and choices to make

Carbon registry infrastructure options

Maintained by the host country

Procure a bespoke registry

Develop a national registry from scratch

Utilize open-source solutions

Adapt existing, open-source code and technical documentation

Maintained by external parties

Use the Article 6 registry

Use the international registry implemented by the UNFCCC secretariat

Use third-party providers

Pay specialist service providers to host the registry. May include registry management

Some early observations

- Countries with cooperative approaches (under A6.2) are ahead with plans to establish the infrastructure systems
- Lack of understanding on what the UNFCCC registry supports and the need for having a national level registry
- Some countries are ahead of having systems before they develop the policy framework to govern them
- Countries with domestic carbon pricing or in the process of having one are exploring options to have one that serves both; but influenced by the governance and resources

For more information, please reach out to:

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<https://pmiclimat.org>

Climate Warehouse

- Website: <https://www.theclimatewarehouse.org/work/climate-warehouse>
- Online Library: <https://wbg.edcast.com/channel/23316>

Climate Action Data Trust

- Website: <https://climateactiondata.org/>
- Launch Video: <https://olc.worldbank.org/content/introduction-climate-action-data-trust>