

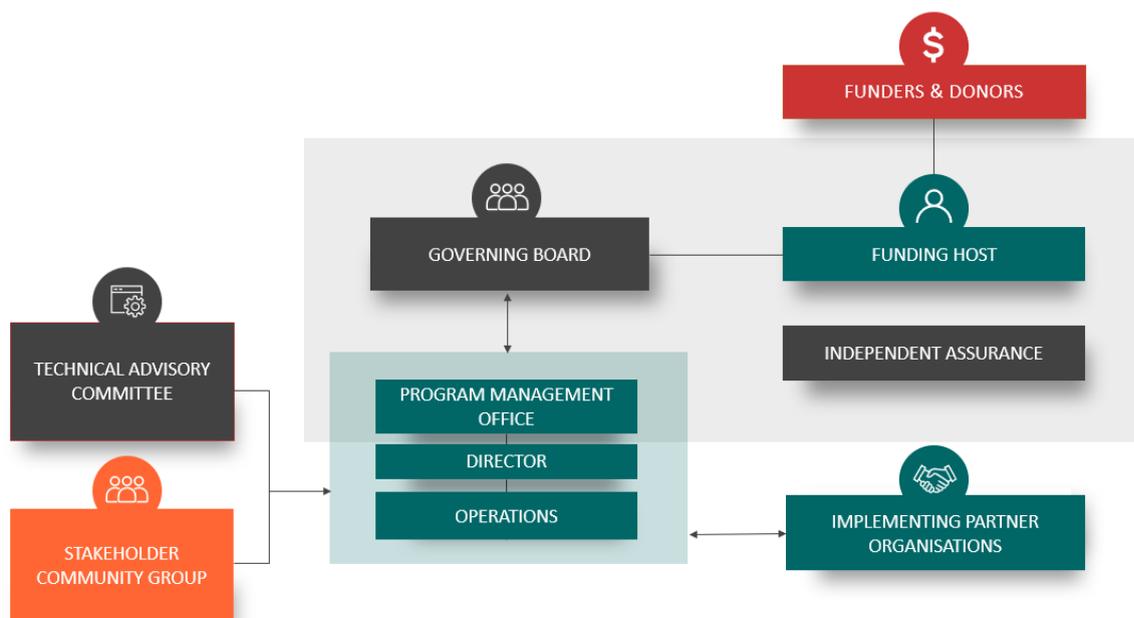
Terms of Reference: Digital Earth Africa Product Development Task Team

Purpose

This document specifies the purpose, functions and modes of operation of the Digital Earth Africa (DE Africa) Product Development Task Team (PDTT).

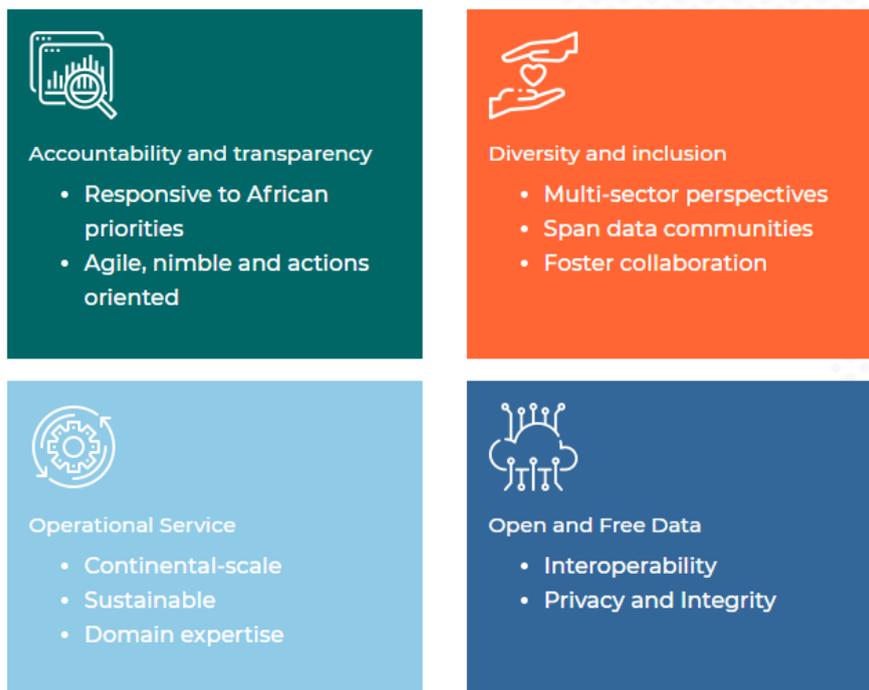
Background

The PDTT exists to support the objectives of DE Africa, and works within the Governance structures of DE Africa, summarised in the diagrams below.



Overall Governance framework for DE Africa. The Program Management Office (PMO) role is filled by the Establishment Team (ET) until the PMO is formed. The Implementing Partners, the PMO and the TAC work together to develop the annual works plan for approval of the Board.

The PDTT is convened and supported by the Program Management Office (PMO) and, in the interim, by the Establishment Team (ET). The PDTT is also governed, in its constitution, conduct and activities, by the Principles of DE Africa:



Digital Earth Africa Principles (summary) guide all aspects of DE Africa..

Product Development Task Team

The PDTT exists to support the PMO to develop continental-scale services and value-add analysis ready Earth observation data to produce products that are ready for uptake by decision makers.

Purpose

The purposes of the PDTT are to:

- Support the PMO, in collaboration with the implementing partners, with the selection, design, planning, development, and validation of DE Africa's continental scale services and products.
- Provide support in the use and application of DE Africa data products*.

(* These products and services are distinct from analysis ready satellite data (ARD) which is not within the responsibility of the PDTT).

Specific Tasks

Specific tasks that the PDTT will undertake include:

- Drawing together stakeholder perspectives to understand requirements and identify priorities for the design of new products and for the improvement of existing products.
- Coordinating the efforts of implementing partners and others involved in the work, including in the development, testing and validation of products.
- Engaging with users, and supporting communications teams, to promote product uptake and understand uses and benefits.
- Developing recommendations for consideration of the TAC and the PMO for inclusion in the Annual Work Plan.

Functions

1. Identify, and develop recommendations to the PMO, for the development of high-priority products/services

- Planning of DE Africa continental-scale products.
- Assist with stakeholder mapping: Identify who uses satellite imagery-derived products. Identify who could benefit, but may not be currently using satellite imagery-derived products, in their work.
 - Engage with stakeholders and partner networks to identify and inform the need for new products.
 - Identify existing methods, code, and partnerships that can inform or support product development, i.e., accurately scope the development process and effort.
 - Provide information and propose new products to the PMO for consideration by the PMO, TAC and implementing partners.
 - Report to the PMO on an agreed cycle
 - Design validation plans and requirements for new products.

2. Designing, and planning of the delivery of products/services

- Development of DE Africa continental-scale products.
- Work with a technical team and analysts to execute the approach.
- Participate in iterative development of products with stakeholders.

3. Validation of DE Africa continental-scale satellite imagery-derived products

- Provide qualitative assessment of early versions of DE Africa products.
- Provide feedback on validation sample design so that it meets end user needs.
- Organize continental-scale validation campaigns with regional partners using guidance and best practices outlined in the DE Africa validation strategy.
- Collect reference data (for training and validation) through image interpretation using tools such as, but not limited to, Collect Earth Online, and on the ground data collection when necessary.
- Conduct quantitative validation assessment using reference data to assess product accuracy, limitations, and consideration for use. Report results as part of the product details metadata.

4. Promoting and monitoring products and services

- Support product use throughout the DE Africa program
 - Communicate products and potential applications to stakeholders.
 - Assist implementation of use cases.

- Project management-related tasks
 - Draw up a detailed planning per Subgroup by the Subgroup lead.
 - Participate in regular telecons as required.
 - Provide input to quarterly progress reports to the DE Africa Establishment Team.

Membership

The PDTT membership will include:

- At least one representative from each of the Digital Earth Africa implementing partners;
- At least one representative from the Digital Earth Africa Establishment Team and/or the Program Management Office; and
- Other partners/stakeholders who can contribute to and/or benefit from membership. Such partners could include, for example, representatives from industry or regional or country-level domain experts.

Membership is on-going. There is no time-limit on membership.

Eligibility

Individual members are expected to bring diverse and relevant expertise in, and contribute towards, one or more of the following areas:

- Gender, equality, diversity, and social inclusion
- Stakeholder engagement around earth observation products
- GIS skills
- Remote sensing
- Environmental science
- Programming skills in Python
- Knowledge of machine learning and data science
- Data validation
- Assessment of the impacts and benefits of products and services
- Planning and coordination of works
- Secretariat

Joining the PDTT

Eligible members may express an interest to join the team at any time. The Coordinator can admit new members if they meet these eligibility requirements. The Coordinator will be selected by the PMO and selected by the DE Africa Establishment Team in the interim.

Role	Responsibilities and expectations
Coordinator/ Co-coordinator	<ul style="list-style-type: none"> • Coordinate cross-project activities • Coordinate regular PD task team meetings (at least monthly, more frequently if required) • Set the agenda and chair PD task team meetings • Take and circulate minutes and notes of task team meetings • Liaise with the TAC on product plan endorsement
Project lead/Co-lead	<ul style="list-style-type: none"> • Manage project plan for defined product-related project • Coordinate project specific activities, including project meetings • Report progress on project • Manage transition from establishment-led to IP-led
Team member	<ul style="list-style-type: none"> • Work together as a team to support one another and ensure consistency • Participate in regular telecons as required • Participate in necessary training to become familiar with operational DE Africa products (e.g. the DE Africa 6-week training) • Work with the technical manager to learn about the DE Africa platform • Assist or lead field validation efforts when needed • Assist or lead other activities as necessary

Meetings

It is anticipated that meetings will be held monthly, or more frequently if needed, as telecons.

Reporting

The PDTT will make formal recommendations to the Program Management Office in order to mesh with the annual planning cycle, specifically in early Q4. The PDTT will also report at quarterly meetings of the TAC.

Review

The Terms of Reference for the PDTT will be reviewed biannually with the aim of continuous learning and improvement. In addition, the PDTT may review the current ToR as the need arises, to ensure it efficiently and effectively carries out its functions.

Expected output

Continental scale products, as defined in the published technical roadmap, are generated with reproducible workflows.

The products are validated across Africa, following standards outlined in the [DE Africa validation strategy](#).

The method used to produce a product and its accuracy and limitations are documented and published.

Engagement activities with end users and stakeholders occurs from start-to-finish of any product development through a process of co-production.

Required resources

It is anticipated that meetings will be held monthly, or more frequently if needed, as telecons.

The PDTT shall liaise as required with other international groups closely linked to Earth observation product development.

Should the need arise, the PDTT may establish sub-groups or task teams with defined deliverables, delivery milestones and fixed timelines, to work on particular aspects of its work programme.

The amount of time required to carry out the tasks as specified in this Terms of Reference depends on the role each PDTT member has in the PDTT (Coordinator, project lead and/or team member).

With the exception of the secretariat, **participation in the PDTT itself** is a normal part of the work to deliver Digital Earth Africa, and will not be separately resourced.

Funding for the development of services and products per se., and associated activities such as promotion and user-support, will be through the normal DE Africa planning and resourcing systems, that is, resources from the PMO and implementing partners will be applied to develop and deliver specific services and products according to the annual works plan.