

# Earth Observation Training, Education and Capacity Development Network (EOTEC DevNet) Operations Concept

October 6, 2021

*Note: This document sets out a structure for the operations of the Earth Observation Training, Education, and Capacity Development Network, or EOTEC DevNet. It builds on the Initiation Plan approved by the CEOS Strategic Implementation Team in March 2021. It is a living document that will be revised as the network grows. Note that “capacity building” and “capacity development” are used interchangeably throughout.*

## Introduction

EOTEC DevNet was created to fill an existing gap in the coordination of capacity building efforts related to the use and application of Earth observations (EO) in solving development challenges and fostering sustainable development. Its goals are to:

- Improve coordination and cooperation among capacity building providers and users to meet existing needs, fill gaps, leverage resources, and reduce any duplication of effort
- Raise awareness and foster information exchange on capacity building resources
- Promote effective assessment of capacity building needs, particularly at regional and national levels

EOTEC DevNet will deliver returns in the form of more efficient use of human and financial resources and more effective and accessible capacity building. A key success factor for EOTEC DevNet is the extent to which it can become a place of information exchange, at which EO data and capacity development/ training providers can find each other and freely exchange information, experience, and learning on EO tools, capacity and training opportunities, and unmet user needs. The current vision is for regional communities of practice to drive and anchor that exchange.

EOTEC DevNet will align its work with that of existing global and regional capacity development networks, building on their initiatives and programs. The aim is to offer coordination and information-sharing, avoiding duplication of effort. Examples of these networks and programs include the GEO regional groups, the UNOOSA regional centers, and the WMO Capacity Development Programme.

EOTEC DevNet recognizes that the active pursuit of diversity and inclusivity is a strategy for fostering greater coordination and cooperation on capacity building. In line with the efforts of its member groups, EOTEC DevNet will take leadership in advocating for diversity and inclusion, creating a welcoming and supportive environment, and prioritizing diversity and inclusion in all outreach and engagement efforts.

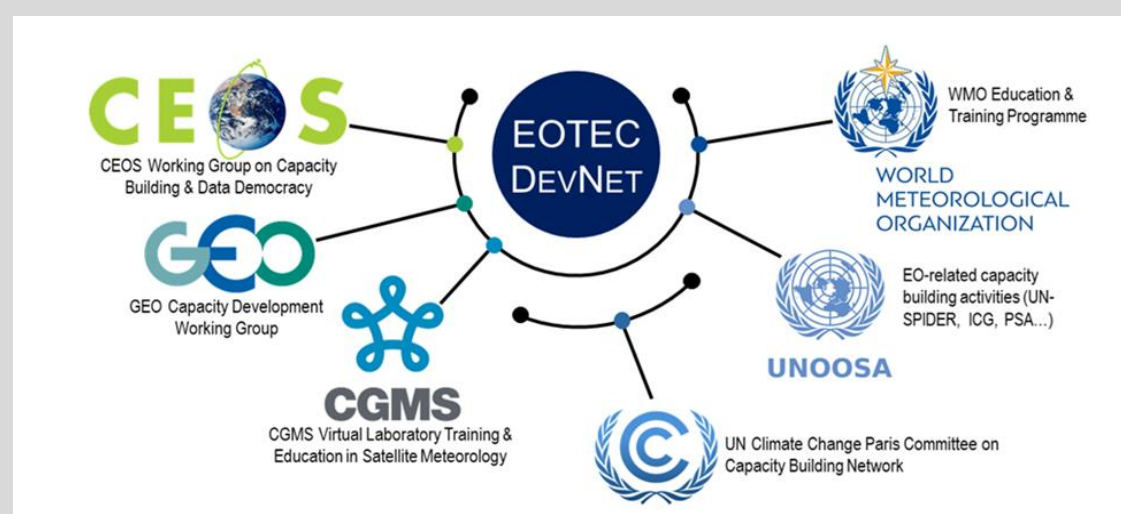
A deliverable in the Committee on Earth Observation Satellites (CEOS) 2020-2022 work plan, EOTEC DevNet will begin with a 2-year pilot. During this phase, participants from the individual networks will steer implementation of EOTEC DevNet through a Global Task Team (see box below) and a Secretariat housed at the CEOS Working Group on Capacity Building and Data Democracy (WGCapD).

## EOTEC DevNet core business

**Drawing on the nexus of three global sustainability frameworks, EOTEC DevNet will focus on increased capacity building and application of EO across these key themes: disaster risk reduction, mitigation of climate change impacts, and adaptation to climate change impacts, with emphasis on human vulnerabilities within each of them.**

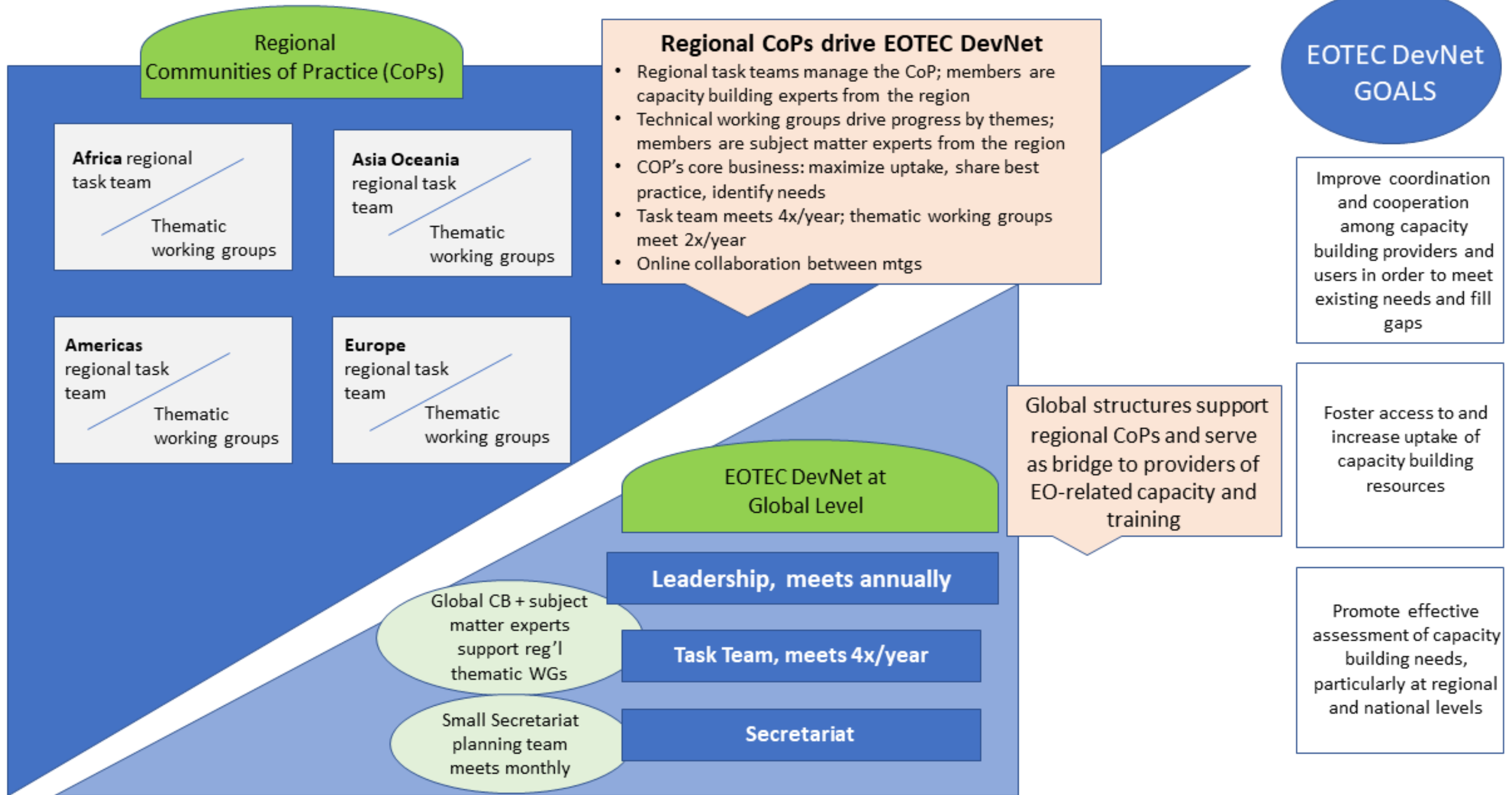
- The three frameworks are: the 2030 Agenda for Sustainable Development, the Paris Agreement on Climate Change, and the Sendai Framework for Disaster Risk Reduction 2015-2030.
- Initial work streams will evolve to meet needs specific to the nexus of the themes. The initial focus is on disaster risk reduction, specifically capacity building related to flooding and drought.

### Current participation in EOTEC DevNet



The inner circle represents the current leadership of EOTEC DevNet: the CEOS Working Group for Capacity Building and Data Democracy (WGCapD), Group on Earth Observations Capacity Development Working Group (GEO CD-WG), the World Meteorological Organization (WMO) and the Coordination Group for Meteorological Satellites Virtual Laboratory for Training and Education in Satellite Meteorology (CGMS VLab), United Nations Office for Outer Space Affairs (UNOOSA), and WMO Education and Training Program (ETR). Representatives of each of these groups will staff the Global Task Team. To broaden its reach, EOTEC DevNet will seek to broaden the network over time to engage others, such as the UN Paris Agreement’s Capacity Building Network. EOTEC DevNet will also seek to align with ongoing geospatial information management action plans such as the United Nations Committee of Experts on Global Geospatial Information Management’s Integrated Geospatial Information Framework (UN GGIM IGIF). A stakeholder mapping activity, anticipated during the pilot phase, will help elucidate these connections.

# HOW WILL EOTEC DevNet OPERATE?



Alongside its coordination role, EOTEC DevNet will seek to deliver three types of work products: 1) theme-specific, web-based “trackers” on existing tools, associated capacity development, training resources, and gaps and needs, 2) guidance on capacity development needs assessment methodologies by theme, and 3) use cases showcasing successful methodologies and approaches.

- Web-based tracking tools will be developed for the prioritized thematic areas. These trackers inventory existing EO tools with details on when, how, and where they can be applied; catalogue related training, education, and capacity development resources; and track initial needs and gaps based on regional experience.
- The needs assessment guidance will synthesize and systematize existing practice and recommend additional approaches tailored to identifying theme-specific needs at national and subnational levels.
- The use cases will feature best practices and lessons learned in capacity building in the prioritized thematic areas.

Collaboration with the regional communities of practice will be critical to the success of these efforts.

## Structure and meeting cadence

**Regional communities of practice will be primary drivers of EOTEC DevNet’s work.**

- Capacity building and subject matter experts from four regions (Africa, Americas, Asia-Oceania, Europe) will lead the communities of practice.
  - The work of the community of practice will be guided and managed by a regional task team with a lead or co-leads.
  - Thematic working groups will be created to support work on specific technical themes. These working groups may be created and disbanded at the discretion of the task team in line with regional needs.
  - The core business of the regional communities of practice will be advancing EO-related capacity building efforts by:
    - Promoting, coordinating, and maximizing uptake of training and capacity building
    - Sharing information on resources and best practices through culturally appropriate and inclusive programs
    - Identifying needs and gaps within themes (currently: disaster risk reduction and mitigation of and adaptation to climate change impacts)
- Contributions, refinements, and updating of the trackers and needs assessment guidance will be central tasks.
- The work of the communities of practice will be coordinated with the regional bodies of the larger network members, such as GEO’s regional networks and UNOOSA and WMO regional centers.
  - During the pilot phase:
    - Regional task teams comprising capacity building leaders from the region will be created to manage the operations of their respective communities of practice.
    - In addition, regional thematic working groups led by subject matter experts will be created to drive progress under each theme.
    - The regional task team and thematic working groups represent the community of practice.
    - The task teams will meet quarterly to oversee the work of the community of practice. The meetings can be used for information-sharing and priority setting; work planning on trackers and needs assessment documents; and deep dives on relevant thematic technical topics. Leads of the thematic groups should attend these meetings.
    - The thematic working groups will meet twice per year.
    - In between meetings, the community of practice will sustain its work and make progress through online engagement, collaboration, and ad hoc meetings. Activities will center on enhancing, revising, and finalizing the trackers and needs assessment guidance, coordination on capacity building activities relevant to the region, and ongoing identification and communication about gaps at regional or national levels. The online engagement will be conducted via email initially and then move to another online collaboration platform as the community grows.
    - The EOTEC DevNet Secretariat will provide initial management support for the communities of practice. The start-up might include: helping organize meetings, recruiting task team and thematic working group leaders, identifying capacity building and subject matter experts, and supporting start-up of the communications and collaborations infrastructure. (Note that EOTEC DevNet already has a dedicated [page](#) on the CEOS website.) The regional task teams, as they grow and strengthen, can assume management.
    - During the pilot phase, the Secretariat will also support the creation and consolidation of the thematic working groups in each region. Global capacity building and subject matter experts will work through the Secretariat to provide support as needed to the regional thematic working groups. The Secretariat will also support communication and coordination across regions, as needed. As with the regional task teams, the thematic working groups can assume management as they are able. These groups can determine their own meeting cadence and logistics.

**At the global level, annual leadership meetings will include the EOTEC DevNet Task Team and representatives of other capacity development networks.**

- Meeting objectives:
  - Recommendations on new strategies and approaches to fill identified gaps in EO capacity development
  - Review of the EOTEC DevNet’s thematic focus areas and recommendations on new opportunities
  - Guidance on approaches to needs assessment in key EO thematic areas
  - Coordination of education, training, and capacity development activities globally and regionally
  - Review of EOTEC DevNet’s progress, including reviews and updates to the tool trackers
- EOTEC DevNet’s leadership meetings will rotate between in-person and virtual meetings. (The first meeting took place virtually on September 10, 2021.)
- Along with the Task Team and EOTEC DevNet Secretariat, other attendees might include the leadership of the other networks, including: the chair and vice chair of WGCapD, VLab co-chairs, GEO CD-WG co-chairs, the WMO ETR manager, and UNOOSA capacity building leadership.

**The EOTEC DevNet Global Task Team and Secretariat will provide support to regional communities of practice as needed and act as a bridge between them and the providers of EO-related capacity and training. The task team will:**

- Provide overall guidance to ensure that the regional communities of practice are launched with clear, results-oriented objectives and operations.
- Center its work on: identifying providers to fill needs and gaps, building the regional networks, cultivating and onboarding capacity development and technical experts at regional level, overseeing meeting planning, helping to manage the community of practice collaboration platforms, and driving communications on network activities and accomplishments.
- Facilitate the production of case studies highlighting successful approaches and methodologies.
- Meet every two months during the pilot phase. As EOTEC DevNet matures, it may meet less frequently.

The Secretariat will operate under the direction of the Global Task Team and help fulfill its work plan. A smaller team, comprising Secretariat participants and any other volunteers, will meet monthly to manage logistics and planning of the meetings.

## Initiation

As part of the pilot, WGCapD will provide part-time Secretariat support to all four regional communities of practice.

As they are able, EOTEC DevNet network participants should contribute a part-time staff person to support management of the community of practice. The University of Jena anticipates contributing a staff person starting in 2022.

The first set of regional meetings took place June 14, 2021. A second set of virtual meetings took place September 21, 2021. Work is underway currently on trackers for flood management and drought management.

A leadership meeting took place on September 10, 2021. Participants approved the operational concept and theory of change, affirming these as living documents that will evolve as EOTEC DevNet grows.

The global task team will support a stakeholder mapping activity in 2021/22 to explore existing and potential capacity building networks and highlight opportunities for EOTEC DevNet to maximize coordination, collaboration, and information exchange.

## Sustainability and anticipated resources

The Task Team and regional leaders will coordinate in developing institutional partnerships at regional and national level to help sustain and strengthen the regional communities of practice.

A key Task Team objective during the pilot will be a sustainability plan that identifies ongoing resource requirements, sustainable resource streams, and a mechanism for managing the funding. This plan would include a budget addressing financial resources for meetings and communications infrastructure and in-kind contributions of staff time to support the Secretariat and regional communities of practice.

Viable resource and funding options might include:

- Connections to World Bank and regional development bank budgets that would capture the value of EOTEC DevNet’s work in activities to support disaster risk reduction, and climate mitigation and adaptation in the context of the Sustainable Development Goals.
- EOTEC DevNet member contributions, both cash and in-kind, to fund the budget. UNOOSA may be able to collect and manage those contributions through existing mechanisms.

## EOTEC DevNet theory of change

EOTEC DevNet must have a mechanism for monitoring its own progress and impact. A theory of change approach has been proposed to support the network’s monitoring and evaluation activities. A summary statement, sample indicators and framework follow. These were developed by the Secretariat team and approved by the leadership team at its September 10, 2021 meeting. This theory of change will evolve as EOTEC DevNet grows. The specific indicators and metrics for monitoring and evaluation will be developed in late 2021.

**Summary:** By creating an inclusive, diverse practitioner community among EO capacity building professionals and subject matter experts, and supporting global and regional actions that enable information exchange and knowledge flows, EOTEC DevNet will enhance collaboration on EO-related capacity building and improve access to capacity building and related resources. In addition, EOTEC DevNet will foster the systematic assessment of capacity development needs, along with identification of gaps and approaches to close them. These actions will result in increased uptake of EO-centered capacity building, improved delivery of activities, and more needs and gaps met. Together, these results will have a positive impact on national, regional and local users’ application of EO data in decision-making, particularly around EOTEC DevNet’s current focus issues: disaster risk reduction, climate adaptation and climate mitigation.

Examples of possible indicators at various levels		
<i>Output</i>	4 new communities of practice and global structures are created	<ul style="list-style-type: none"> <li>• Number of communities of practice</li> <li>• Number of global structures created</li> </ul>
	New or improved resources to engage and connect users with capacity building, training and other tools	<ul style="list-style-type: none"> <li>• Number of trackers, guidance documents and best practices created at regional and global level</li> </ul>
	New or improved practices and mechanisms for fostering collaboration among capacity building providers	<ul style="list-style-type: none"> <li>• Communication and coordination channels (e.g., online platform and tools) established</li> <li>• Number of leadership, task team and thematic working group meetings conducted as scheduled</li> </ul>
	New or improved approaches or practices to assess, communicate and act on needs/gaps	<ul style="list-style-type: none"> <li>• Best practice guidance on needs assessment developed</li> <li>• Number of regional communities of practice that implement the guidance</li> </ul>
<i>Outcome</i>	Capacity building providers actively use the new resources in their outreach.	<ul style="list-style-type: none"> <li>• Number of times providers use the new resources.</li> </ul>
	Capacity building providers engage in the new collaboration practices and mechanisms.	<ul style="list-style-type: none"> <li>• Level of participation in regional community of practice and global level meetings and online engagement</li> </ul>
	Capacity building providers employ new approaches and practices to assess needs.	<ul style="list-style-type: none"> <li>• Number of providers who use new approaches to needs assessment.</li> </ul>
<i>Intermediate results</i>	Capacity building providers increase and improve outreach to users	<ul style="list-style-type: none"> <li>• Number of activities and communications to engage users</li> </ul>
	Capacity building providers improve strategic and ad hoc coordination	<ul style="list-style-type: none"> <li>• Number of providers attending meetings</li> <li>• Number of capacity building activities with multiple partners</li> </ul>
	Capacity building providers act to address needs/gaps	<ul style="list-style-type: none"> <li>• Number of activities proposed in response to identified needs</li> </ul>

Theory of change schematic

