

UN-SPIDER

United Nations Platform for Space-based Information for Disaster Management and Emergency Response

- **Established by the UN General Assembly in 2006:**
- **Managed by the United Nations Office for Outer Space Affairs (UNOOSA)**
- **Headquarters at the United Nations Office in Vienna and additional offices in Bonn, Germany and in Beijing, China.**

SPEAR

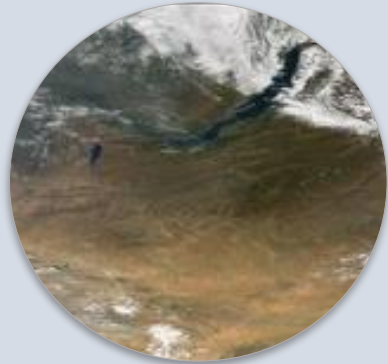
A joint initiative by UN-SPIDER and ZFL of UniBonn

UN-SPIDER NASRDA NEMA NIHSA ZFL

National Virtual Expert Meeting

**“Space-based Solutions for Disaster Risk
Management and Emergency Response in
Nigeria”**

13 to 15 April 2021



Technical Advisory Support

UN-SPIDER provides support to countries in assessing national capacity and in evaluating disaster and risk reduction activities, policies and plans



Knowledge Portal

The UN-SPIDER Knowledge Portal is a web-based tool for information, communication and process support



Capacity Building

UN-SPIDER facilitates capacity building and institutional strengthening, including the development of curricula and an e-learning platform (e-SPIDER)



Fostering Cooperation

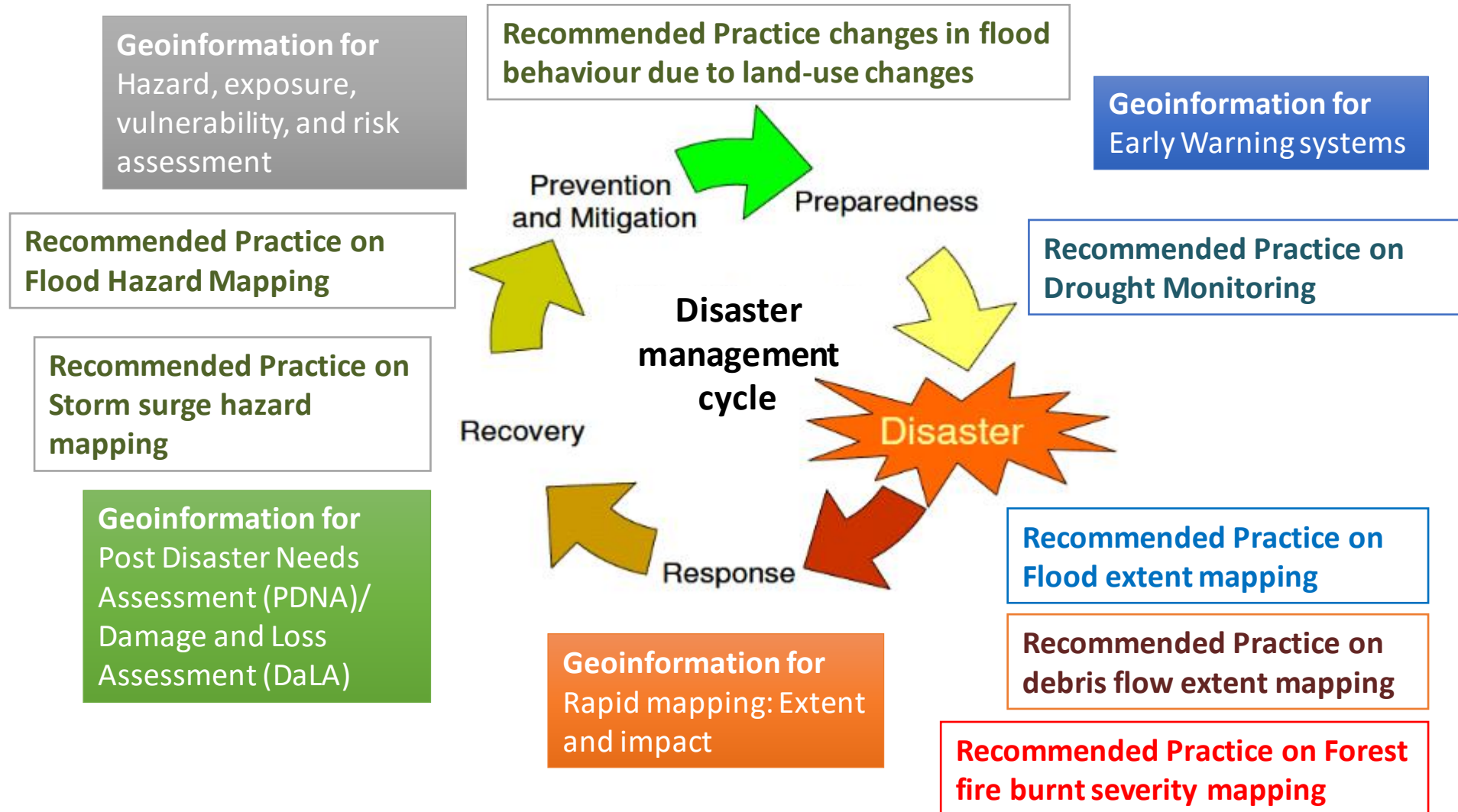
UN-SPIDER fosters alliances and creates forums where both space and disaster management communities can meet



Network of Regional Support Offices



Access to Knowledge



Main Aim:

Institutionalizing the generation and use of space-based information:



Establish inter-institutional teams in developing countries

Capacity building and Institutional strengthening

Technical Advisory Support to Nigeria:

- **Technical Advisory Mission:**
- 13-17 June 2011, coordinated with NASRDA and NEMA

- **Advisory Support due to floods:**
- Elaboration of maps of floods in 2015, 2018, 2019 and 2020.

- **Capacity building efforts:**
- Virtual training course for staff of NEMA, NASRDA and ARCSSTE-E in Oct. 2020 on flood mapping using Sentinel 1 radar imagery and Google Earth Engine.

- Mobilization of experts from Nigeria to UN-SPIDER Conferences in Vienna, Bonn and Beijing since 2007.

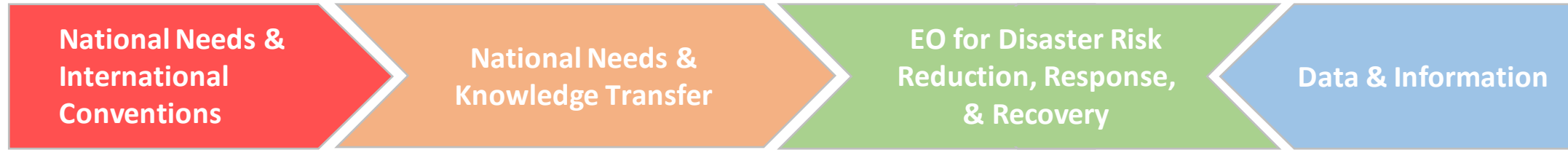
SPEAR

*Space-based Earth observation Applications for
Emergency Response and Disaster Risk Reduction*

11.06.2019

- **Raise awareness for the usefulness of EO to contribute to efforts conducted in the areas of DRR, preparedness, response, and recovery with a focus on African countries and in line with the German Africa Strategy.**
- **Make use of and strengthen German expertise for the use of EO information to support international conventions in the fields of disaster preparedness and response in the multi-hazard and multi-risk context**
- **Ensure that space-based data, information, tools and applications are accessible based on actual needs and requirements of users, especially in African countries.**

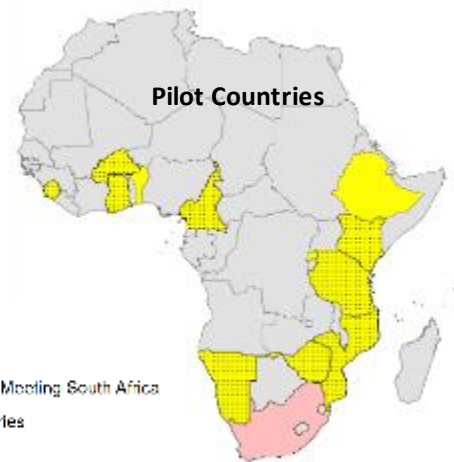
- **Facilitate international cooperation between the space community and the communities that focus their efforts on disaster risk reduction, preparedness, response, and recovery efforts.**
- **Contribute to the strengthening of institutional capacities at the national level, in particular of institutions in developing countries.**
- **Strengthen Bonn as UN and Science location and increase the cooperation between the Center for Remote Sensing of Land Surfaces (ZFL) of the University of Bonn and the UN-Campus**



- **SFDRR**
- **SDGs**
- **UNFCCC**
*Measures/
Goals of
NAPAs*

- **National Needs**
*Disaster
Preparedness and
Response,
Capacities*

- **CEOS**
- **Charter**
- **GP-STAR**
- **GEO**
- ...



- TAM
- TAM Follow Up
- Regional Expert Meeting South Africa
- Country Boundaries

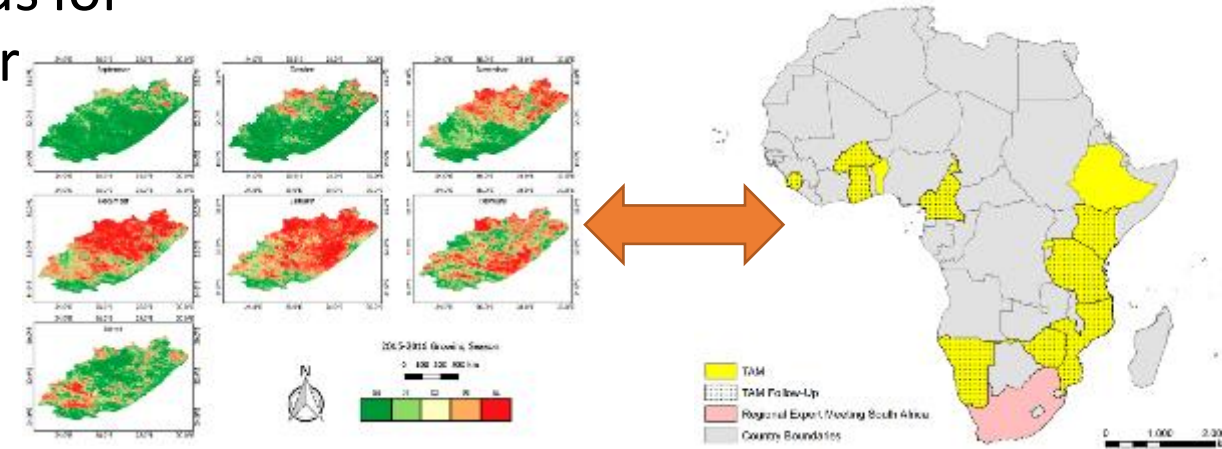
- Use and development of EO-based information products and recommended practice to strengthen disaster mitigation, preparedness, response & recovery
- Knowledge generation and exchange by
 - Capacity building
 - Training and Technical Advisory Missions
 - Widening Collaborations
 - Knowledge Platform
- International exchange

- **Satellite Data**
 - Sentinel 1,2,3
 - Landsat
 - AVHRR
 - MODIS
 - ...

- **Ancillary Data**
 - In-situ data
 - Multi-Hazard and Risk Assessment
 - Models and Scenarios
 - ...

- Development of EO-based tools and methods for Disaster Monitoring and Support for Disaster Risk Reduction

- Drought and Drought Severity Monitoring
- Flood Monitoring and Impact Analysis
- Cascading Effects (e.g. fire, landslides ...)

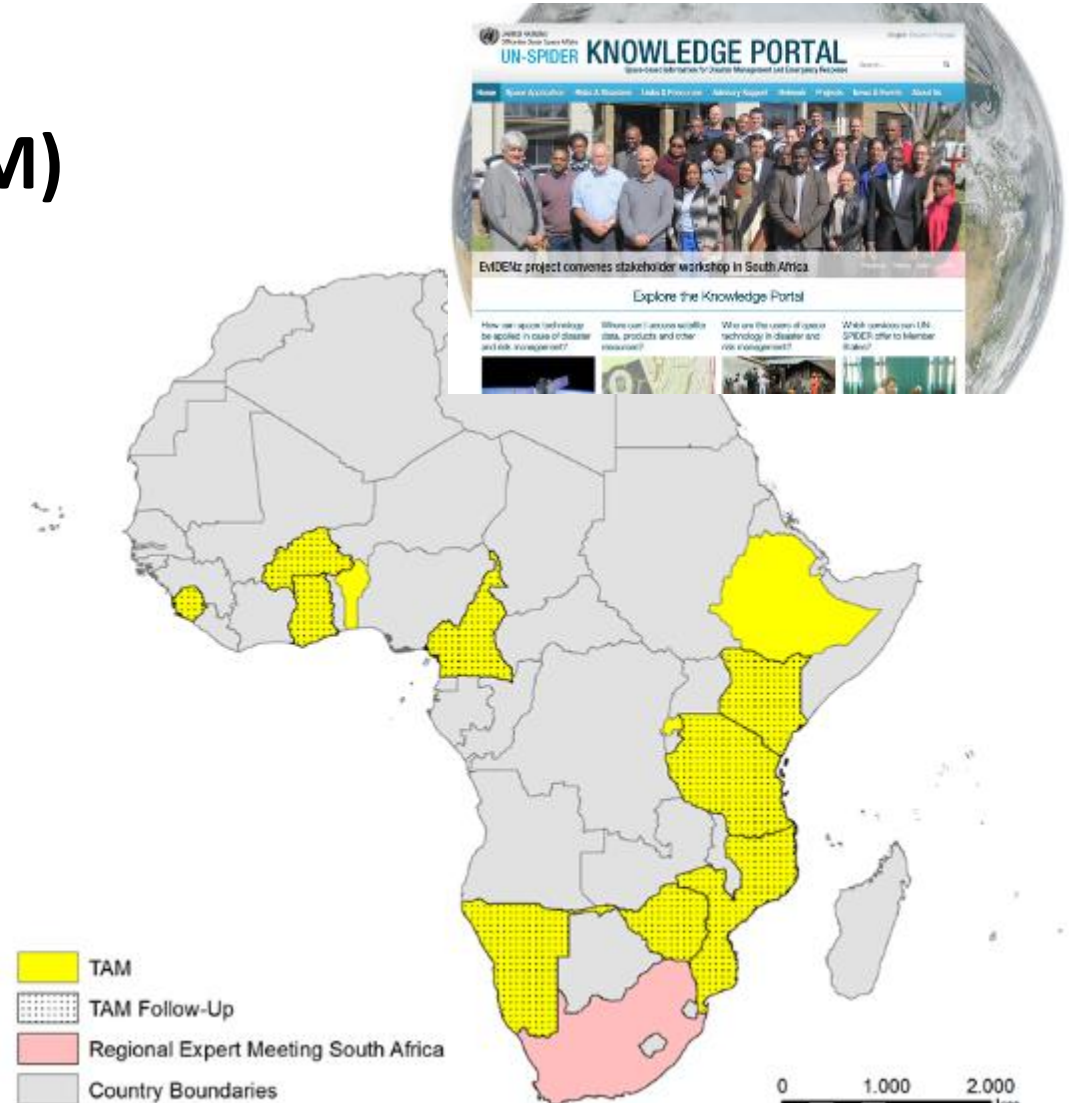


- Close exchange before, during and after Technical Advisory Missions (TAM)
- Multi-data approaches
- Tools and methods should be embedded in recommended practices of the UN SPIDER Knowledge Portal



Technical Advisory Missions (TAM) Institutional Strengthening Missions (ISM)

- 2-3 missions per year
- Regional Expert Meetings
- Training and Capacity Building
- On-demand -> Specific requests
- Africa-wide network
- Shapening EO-based applications



Outreach

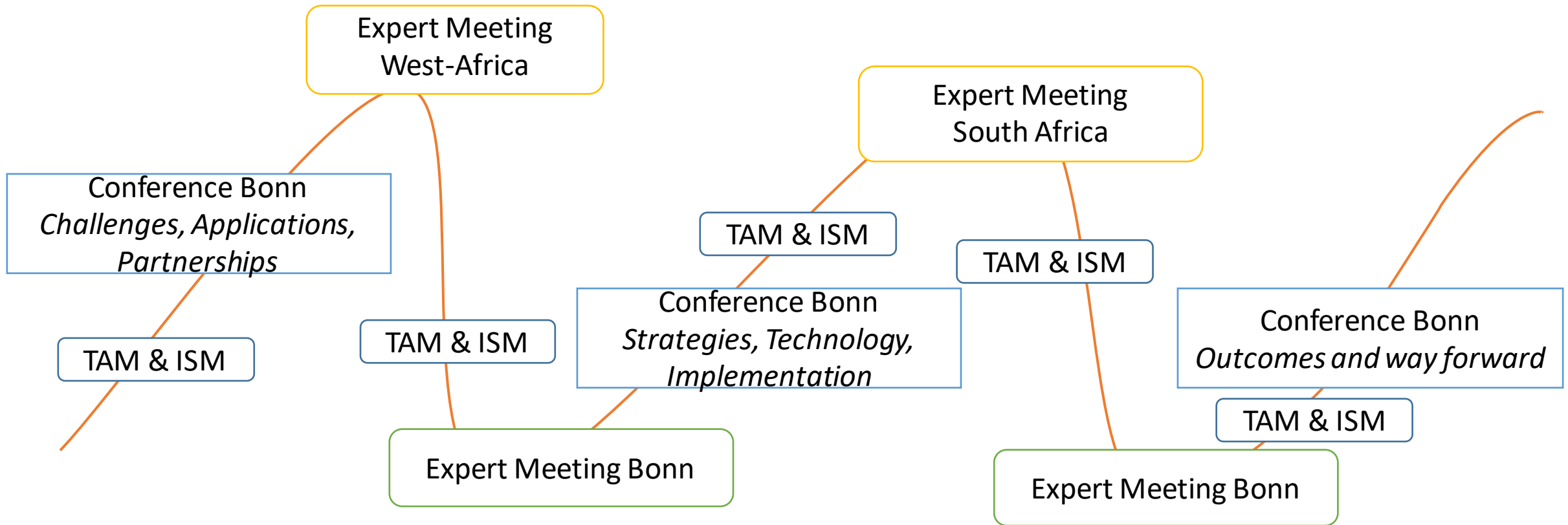
2019

2020

2021

2022

2023



Publications, Newsletter ...

- Continue and strengthen virtual activities
- Small Copernicus user-uptake project linked to SPEAR starts this year
 - Possibility to work with African countries to improve the accessibility of Copernicus data, services and related materials and training
 - Maybe Nigeria could become a pilot country
- Continue work on recommended practices
 - Improve methods
 - Incorporate new possibilities and data sources
 - Cover different disaster types
 - Develop pilot studies