Global Workshop on Earth Observation 2024
Terceira Island, Azores, Portugal

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Eugenia E. Nuñez
Senior Economist, Division on Technology and Logistics

Context

1. Geospatial tech and Earth Observation (EO) in support of SDGs

2. The role of international organizations and in particular of the UNCTAD + CSTD

3. Launch of the initiative AIR Centre + UNCTAD (thanks to the Government of Portugal)

4. Our aims and vision

Sustainable Development Goals: where are we?

• **Progress is far from ideal** : insufficient and uneven.

• Assessment of 140 SDG targets : 12% are on track; half are off-track and 30% no movement or regressed (2015 baseline, UN 2023).

• Carbon dioxide levels continue to rise. Renewables remain a fraction of energy supplies;

• By 2030: 575 million people will remain in extreme poverty, 660 million people will be without electricity and 2 billion will rely on polluting technologies; and

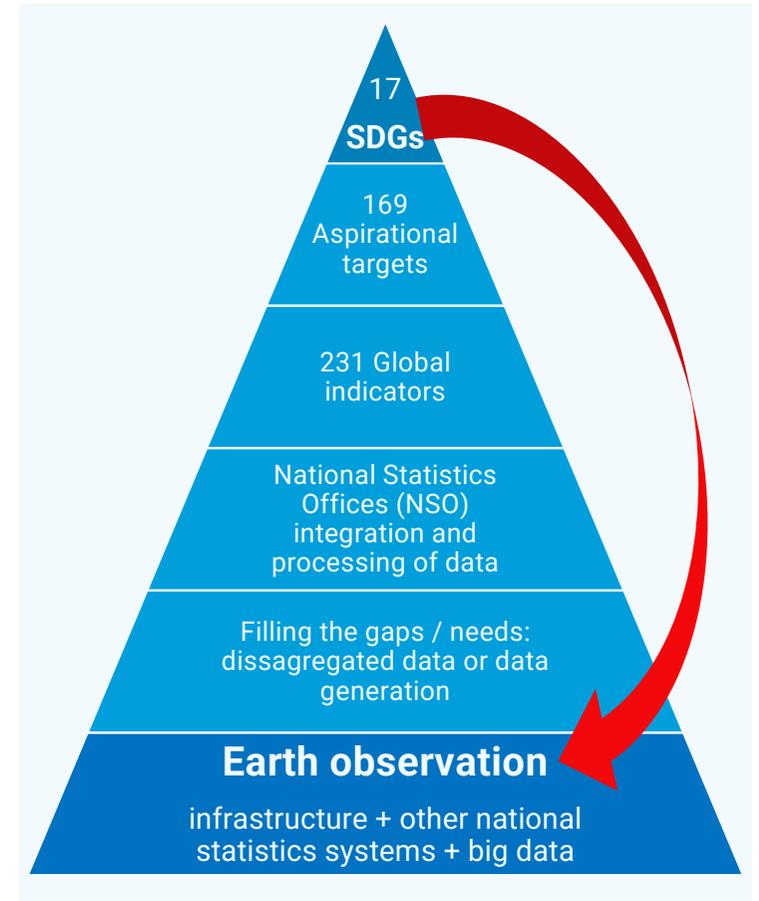• 84 million children will be out of school.

The contribution of GS technologies to SDGs varies significantly **with EO taking the lead** (Baumgart et. al)

Geospatial Tech & EO solutions for SDGs

GIS-Based poverty map

Geospatial data for agriculture yield estimation, smart agriculture

Geospatial analysis for examining healthcare systems, location of hospitals, disease patterns

Spatial location of water resources and pollution

1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
6 CLEAN WATER AND SANITATION

11 SUSTAINABLE CITIES AND COMMUNITIES
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND

Urban planning Smart cities

Detection of climate patterns and impacts of CC on human lives, migration

Ocean pollution Potential fishing zones Monitoring of ocean temperatures

Forest cover measurements Deforestation & forest degradation

Source: UNCTAD adapted from Environmental Monitoring and Assessment, Springer Nature 2019

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Earth Observation is key in support of SDGs

- Tech brings positive change → **better outcomes**.

- 2030 Agenda is **evidence-based and data driven.** But DCs face serious challenges.

- To track progress on SDGs, DCs require **accessible, reliable, timely and disaggregated data = a major challenge.**

- In DCs, there is a need to **modernize & strengthen monitoring and assessment systems and inform policy** for SDGs:
  - Technological gaps,
  - Limited human capacity,
  - Data accessibility and infrastructure,
  - Strengthen institutional frameworks & governance for effective use of EO.

  To address DC challenges = collaborative effort TA/CB to empower DCs in harnessing the benefits of EO.

Source: UNCTAD adapted from http://www.eohandboook.com/sdg/

Harnessing space technological applications for SDGs: a call for action at the global, regional and national levels

CSTD 23rd session priority themes:

1. Harnessing rapid technological change for inclusive and sustainable development.
2. Exploring space technologies for SD.

With Portuguese Government funding : the initiative is launched.

Priority themes for 2024:

1. Data for development
2. Global cooperation in STI

M/S continue to place high priority to data

UNCTAD, in particular the S&T Branch:

- Addresses tech solutions to global SD

- Through 3 pillars:

1. Intergovernmental track
2. Research (TIR)
3. Technical cooperation projects and CB

It supports CSTD M/S and works on TA projects beyond CSTD

What bring us here : a partnership with the AIR Centre

Harnessing space technological applications for SDGs.

Objectives : to assist experts, particular attention to **female scientists, to use GS tech and EO to increase resilience to sustainable development challenges.**

Build capacities to **absorb, manipulate, interpret and digitalize information** in support of policy-making and reporting on progress for SDGs, including SDG 5 on gender equality in STI.
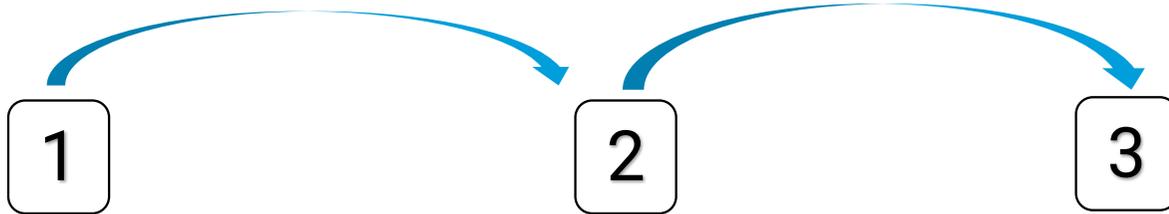
Funded by the **Government of Portugal.**

Expectations

- **To train and share knowledge** for policy-making (open-source non-proprietary system);
- **To build a community (Julia)**;
- **Generate impact** to accelerate SDG progress
- **Replicate & adapt to other countries:** pilot programme

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Some takeaways

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There is a need for accelerated progress on SDGs and for DCs to access the latest tech advancements.

= **GST & EO are recognized tools towards this end.**

This Conference will provide you with state-of-the-art tools to process data and collaborate on EO.

= **Build a community of experts that will continue to collaborate.**

Beyond this Conference, think outside the box: strengthen linkages between the scientific community and policymakers.

= **Reach out to officials in support of evidenced-based policy-making for SDGs.**

Thank you very much

Eugenia E. Nuñez
Senior Economist, Division on Technology and Logistics

eugenia.nunez@un.org