

EO and SDG's: A forced marriage?

We started **eocafe** shortly after the Covid19 pandemic arrived as a way for our community to meet each other virtually. It is fair to say that now there are many opportunities to join a virtual meeting, seminar or workshop every week and sometimes it is hard to choose which one to join.

Despite this, we continue with eocafe but now with a different goal, to bring subjects of interest to the community whilst leaving room for some informal networking in the margins of the meeting. Not as effective for networking as physical meetings but in some ways more effective as people do not have to spend time travelling and can join us from any time zone. For those who have not yet joined us, it is a very informal affair where I talk with guests with the rest of the cafe listening in and then joining the conversation as they wish.

Our most **recent eocafe was about the Sustainable Development Goals (SDG's)**. It was just 5 years' ago that they were introduced via the UN resolution on the 2030 Agenda for Sustainable development which was signed in September 2015. In the eocafe last week (3rd December) we met with 3 experts working on the implementation of the SDG's and particularly on the role that EO can play. It has long been clear that to monitor development on a global scale, EO is an essential tool.

Greg Scott who is the inter-regional advisor and a lead player in the UN GGIM (**Global Geospatial Information Management**) outlined the framework for the SDG's and their Implementation. Greg reminded us that there are 17 Sustainable Development Goals, 169 targets and 232 indicators. The latter form a **Global Indicator Framework (GIF)** which will allow countries and the global community to measure, manage and monitor progress.

Greg also made the point that the indicators were largely based upon statistical data since EO is not well understood by statisticians, decision makers and diplomats. Although the development of the Global Indicator Framework has primarily been based on statistical data (has been proposed for the monitoring of the Goals and Targets of the 2030 Agenda), it is recognized that geospatial information (including EO) provides new and consistent data sources that can support and inform official statistics and consequently the indicators for the SDGs.

EO programmes have shown that they can contribute with such data, yet there is a **lack of well-defined processes and methodology to integrate with the other necessary data sources**. EO data offers global coverage, consistency of measurements, regular and repeatable observations, many different data types and is affordable. Data from open sources can increase the transparency, accuracy, reliability and key linkages.

Mark Paganini, technical officer with ESA gave a very useful overview of how the implementation is being managed and where the EO industry can be involved. Copernicus and its unique datasets are a key European contribution, but private, commercial data is also highly relevant. Companies should work with their **national statistical offices which hold the lead on reporting against the targets**, with the results being collected by the UN statistical division as well as some of the other UN bodies. The UN WGGI (working group on geospatial indicators) review the GIF and identify existing geospatial data gaps and methodological issues as well as assessing how EO can contribute.

That left a really good introduction to **Kevin McCormack** who is the lead statistician for SDG reporting in the Irish statistical office. Kevin also co-chairs the UN Inter-Agency group dealing with the SDG indicators. Kevin explained the system which has been set up in Ireland which has also recently become an excellent basis for establishing national Covid reporting. Kevin also gave an example of the **SDG reporting for mountain greenery** which is currently using NDVI measurements based on Sentinel-2 imagery but is limited by the number of cloudy days in Ireland! Even so, this is integrated into the measurements being made with a wish to do more.

Companies can find it hard to get heard since the UN and national structures are working on measuring against the targets – so one step removed from the EO contribution. All speakers recognised that a private-public partnership, in the sense of the two parties working together, is missing.

From this it was clear that **more EO products should be made available in the National statistical offices**. Greg is really encouraging companies and especially small ones to get more involved. The UN-GGIM will enable communications to make national offices aware and help them integrate into their national development plans whilst ESA is supporting EO integration into monitoring and reporting as well as promoting new services which could be relevant. The EARSC award for an innovative product of the year is also appreciated. [Greg and Mark have both been judges for this award – and their time has been much appreciated].

We discussed the pace of change in the sector and that **new satellites and sensors are being launched which can bring new services to support the SDG's**. Opportunities to speak to representatives of the sector through events like the eocafe are also appreciated by our guests. Others in the cafe also raised questions about the use of EO during Covid and whether the EU census could be an opportunity.

Finally, a **key factor that was identified is trust**. Statistical officers are used to really understanding the sources of their data and all its imperfections. With EO data they have no history and no experience to fall back on. As a result, they are often wishing to really understand the algorithms, the processes whereby the data they receive are being generated. Thus, there is a lack of trust which needs to be addressed. Maybe time to return to the topic of certification?

In conclusion, geospatial data is one of the key contributions which the private sector can make. Companies can offer data, geospatial information, platforms and curation of data as a valuable resource. The subject is very broad, and I imagine that we shall return to it in a future eocafe if not a longer, dedicated event.

Geoff Sawyer, Monica Miguel-Lago, Sandra Cabrera Alvarado.