ECMWF recognises the important role played by GEO in advancing the availability of long-term, global data and modelling information as a basis for sound decision-making for improving human welfare. Expanding further the availability of consistent and complete datasets with full and open access is crucial, as is its aim to consolidate observing networks, to improve global coverage and availability of data.

ECMWF contributes to GEO in several ways: it carries out research on the utilisation of Earth observations for ensemble weather analysis and prediction; it provides access to global analyses and predictions of the atmosphere via maintaining open access databases; it contributes environmental information services through its involvement in the EU Copernicus Programme.

2015 has seen ECMWF strengthen its contribution to GEO even further, both on the research aspects, as well as through increased involvement with the European Union’s Copernicus programme.

Starting with the former, provision of The International Grand Global Ensemble (TIGGE) database has been extended for another four years, and it will continue to provide an invaluable resource for the science community, including by supporting the WMO’s World Weather Research Programme projects.

ECMWF has also launched a data portal for sub-seasonal to seasonal (S2S) weather forecasts to help researchers study predictability on time-scales of up to 60 days. It has been developed as part of the five-year S2S research project on sub-seasonal to seasonal prediction launched in November 2013 by the World Weather Research Programme (WWRP) and the World Climate Research Programme (WCRP).

Moving to the latter, ECMWF is proud to be delivering the Copernicus Atmosphere Monitoring and the Climate Change Services on behalf of the European Union, as well as contributing to the Emergency Management Service through ECMWF providing the European Flood Awareness System’s (EFAS) computational service. These services utilise the global observing system including the new Sentinel satellites.

The Copernicus Atmosphere Monitoring Service is operational and every hour the service provides accurate analyses and forecasts, detailing the composition of the atmosphere from the ground level up to the stratosphere.
The Copernicus Climate Change Service is in its proof of concept phase and through its climate data store will provide:

- global climate data re-analysis;
- tailor-made forecasts;
- customisable visual data to enable examination of wide range of scenarios and model the impact of changes;
- access to all the underlying data.

The service will build upon and complement capabilities existing at national level and will become a major contribution from the European Union to the WMO’s Global Framework for Climate Services.

The European Flood Awareness System initiative increases preparedness for riverine floods across Europe. Its sister initiative GloFAS jointly developed by the European Commission and ECMWF, applies the same methodology and principles but at global level.

End