



ESSC Statement on Climate Change

10 December 2015

The European Space Sciences Committee (ESSC) supports the Article (2) agreement on climate change of the Declaration of the '2015 Budapest World Science Forum on the enabling power of science' urges such a universal agreement aiming at stabilising atmospheric concentrations of greenhouse gases and reducing the amount of airborne particles. The ESSC encourages countries to reduce their emissions in order to avoid dangerous anthropogenic interference with the climate system, which could lead to disastrous consequences. Such consequences, albeit from natural evolution, are witnessed in other objects of our Solar System.

The Committee recognises in particular the Copernicus programme and Sentinel missions as unprecedented European commitments to Earth Observation in the service of stakeholders. The Sentinel satellites will provide European scientists, decision makers and citizens with information on the state of our climate and environment of unparalleled detail and quality.

All physical processes and data from current and future programmes helping to understand (or providing insights on) the presently ongoing climate change should be made available and analysed, including space climate influence on global climate change.

To maximise the impact of these programmes, Europe needs to make archived and near-real time data easily accessible, and should ensure its quality through a comprehensive and continuing programme of calibration and validation. Mission planning should be transparent and systematic to ensure an optimal global usage of the limited system capacities with the needs of all stakeholders considered.

Europe and the Group on Earth Observations (GEO) nations must continue to develop operational programmes, like Copernicus, that allow us to monitor the accelerating climate change and its impact, through the mapping of important indicators. GEO nations must also continue to develop thematic platforms, such as the ESA Earth Explorer missions that target specific scientific questions that help us better understand the mechanisms that link the natural and human-driven processes with greenhouse gas emissions and climate change.

Earth observational data can further be exploited to understand the health and socio-economic impacts and effects of climate change. Fundamental scientific research can help the generation of technical solutions such as those improving energy efficiency.