



Meeting Report: European EARTHTIME

An informal 'brainstorm' meeting concerned with EARTHTIME-EUROPE was held on the 1st and 2nd of December 2005 at the Département de Minéralogie, Université de Genève, Switzerland organized by Urs Schaltegger and Jan Wijbrans.

This meeting brought together 15 scientists, primarily based in Switzerland, UK and the Netherlands, who are interested in, and actively researching geological timescale calibration and its exploitation to enhance our research of earth's evolution.

The EARTHTIME Initiative originates in the US where the NSF has funded a series of workshops around the theme of calibrating the Geological Timescale. EARTHTIME specifically aims to be an international effort with many Europeans and Canadians being involved in previous workshops/conference sessions.

Goals of the Geneva EARTHTIME meeting:

To bring together a core group of European-based researchers with broadly common interests in geological timescale calibration.

To discuss whether there would be any benefit from an organised group of European researchers involved in the EARTHTIME initiative.

To discuss different future strategies (possibilities for EU funding, raising the profile of the EARTHTIME Initiative in Europe).

OUTLINE OF MEETING

Thursday am.

Urs Schaltegger (Uni Geneva, CH) welcomed the group and offered an outline of meeting aims and

schedule. Dan Condon (BGS, UK) presented a brief overview of the EARTHTIME Initiative, its development over the past 3 years and some plans for the future.

Thursday pm to Friday Lunchtime.

A series of short informal presentations focusing on specific aspects relating to geochronological, stratigraphic and palaeontological techniques, their application and integration.

Urs Schaltegger (U Geneva, CH) presented an overview of U-Pb dating applied to the stratigraphic record using the early Triassic of China as an example.

Randy Parrish (BGS, UK) gave an update on EARTHTIME activities aimed at eliminating interlaboratory bias in U-Pb dating including a progress report on the mixing and calibration of the EARTHTIME tracer solutions.

David Selby (U Durham, UK) gave a presentation on Re-Os geochronology applied to organic rich sediments demonstrating its potential for timescale calibration.

Hugo Bucher (U Zürich, CH) gave a review of biostratigraphic correlation techniques and discussed the merits of integrated high-precision geochronology with high-resolution biostratigraphic data.

Peter Brack (ETH Zürich, CH) gave us an update on the 'Latemar controversy' which stimulated lively discussion.

Jan Wijbrans (VU Amsterdam, NL), Wout Krijgsman and Frits Hilgen (both U Utrecht, NL) gave a series of presentations relating to the integration of geochronology, magnetostratigraphy and astronomical tuning with emphasis on their ongoing investigation of the Mediterranean Neogene. This group provided an excellent example of the type of integrated approach required for detailed timescale-based studies and also the potential for the direct intercalibration of astronomical tuning and $^{40}\text{Ar}/^{39}\text{Ar}$.

Discussion of the possibilities of EU-funding (Paul Bogaard/Amsterdam and Felix Waehry/Geneva). Paul presented information about a variety of funding opportunities that may be suitable for a European group of scientists interested in pursuing EARTHTIME research. These included information on ESF workshops and the up coming Framework

Conclusions:

As with previous EARTHTIME workshops there was a great deal of enthusiasm for the Initiative. Integration and coordination with other EARTHTIME (such as the US NSF undertakings) activities is essential.

If we are to be successful, then community-wide involvement is essential. We need to increase the awareness of EARTHTIME within Europe, in terms of both the geochronology and 'palaeo' communities. This will be achieved by pro-active word-of-mouth in addition to thematic sessions at conferences (EGU, GSA, Goldschmidt, etc.).

An organized and coherent approach is required if we are to make an impact. This meeting was good a start but we need to encourage more core researchers into the group and develop our organization.

There is potential to obtain EU funding. In the short-term we will be applying for funding to support an EARTHTIME workshop to be held in Europe (most likely early 2007). In the longer term, FP-7 will come online in 2007/2008 and there is the potential for an EARTHTIME – based application from this group, however this will require further discussion within the group over the next 12 to 24 months. It was suggested the Cronus-EU (<http://www.cronus-eu.net>) could be used as an example of a similar type of project (in scope and scale) that is supported through FP-6.

Actions

Organisation of EARTHTIME sessions at the major international meetings (in concert with the North American EARTHTIME group).

Leading up to FP7 coming on line (expected in 2007), EARTHTIME Europe will apply for funding through the ESF for one workshop with the aim to invite European researchers involved in timescale calibration studies.

Following up on the EARTHTIME Europe workshop, the second aim is to bring the EARTHTIME series of workshops as started in the US to Europe. For this aim also ESF funding will be sought.

Following up on actions 1-3 an inventory will be made of research potential for an FP7 network proposal to be submitted in 2007.