

IUGG Centenary Activity

Knowing Planet Earth: Geoscience awareness across cultures and languages

Final Report

Supporters: IASPEI, ILP, IAVCEI, IUGG Czech Republic.

Original Concept

We proposed a global online forum and workshop to raise awareness of the Earth system to aid global sustainability and resilience to the broadest possible public.

The project would:

- (1) contribute to the international cooperation in Earth and space sciences by generating a global discussion on the Earth system, and its communication.
- (2) it would highlight the IUGG Centennial, by holding a highly publicized global on-line forum with an event at UNESCO
- (3) the objective of the project would be to introduce a globally understandable framework for the Earth, with an alphabet of geological icons 'Geomojis' and a forum for the multi-lingual expression of geoscience words.

Note that, while the project started with the UNESCO event, it was conceived as being *an ongoing long term project*. This is important, as the project was not so much as single event, but that was to be a start of a longer sustainable process, that would lead to more activities. This is indeed the case, with in situ activities held in Europe and in Latin America, and the inclusion of the project into a UNESCO Geosciences Program project 'Geoheritage for Resilience'. Apart from the target UNESCO delegations, schools, universities and a diverse public are being reached. The project started at the Centenary is sustainable and will continue and grow.

Proposed event and activities

The event was planned to be at UNESCO headquarters in Paris to coincide with the IUGG centenary. After several planning attempts it was fixed at 20 September 2019, to follow on from the main IUGG centenary event. The specific event was then publicised and fliers distributed at the main anniversary event. (See flier – Annexe 1). The 'Knowing Planet Earth' project was integrated into UNESCO's activities and presented with them, giving it a central stage with Global Geoparks, and other Geosciences Programme activities. This way was considered to be the best use of the funds, to allow maximum benefit and liberate matching funds for the consolidation of the project.

The funding provided by the IUGG (5,000 USD) was a third of that originally requested, but as the programme involved on-line activities, these were increased, and replaced face-to-face meeting. This not only economised but well prepared the project for the coming COVID crisis. The full sum was transferred by IUGG to UNESCO Geosciences as a donation for them to manage the internal UNESCO organisation of the event.

Thus, the central themes of the project – the global framework, and the geomojis are currently underway as different projects that have benefited from the launch, with funding in excess of 150,000 € over several projects. These will develop over several years and engagement with IASPEI, ILP, IAVCEI and other IUGG components will continue.

- The Global Framework continues to be used, and expanded, and is being integrated into schools projects in some European sites (projects in Belgium, France, Philippines, Peru for example). The framework continues to be used and discussed, and modified, as was expected. In France, a project started to develop the global Framework for blind students, which lead to 3-D printing of the globe, as a teaching tool.

- Geomojis are now the subject of a PhD. funded by the Auvergne Region in France. This thesis is also looking at the words the terms used in the global Framework, and how they are translated into different languages, and adjusted to be universally understood (not just by specialists).

The concept has been introduced into a UNESCO Geosciences Project 'Geoheritage for Resilience', and forms a corner stone of many of this project's activities.

The event at UNESCO

On the 20th of September 2019, the launching event was held in UNESCO, Paris with introductions from the UNESCO secretariat, with Kristof Vandenberghe (UNESCO), Olzem Adiyam Lopez (UNESCO), Nicolas Zouros and Guy Martini (UNESCO Global Geoparks Council), Bridgitte Vlaswinkel (UNESCO International Geosciences Programme Chair, and Ian Stewart (UNESCO chair 'Geoscience and Society').

The event allowed the UNESCO community, some 200 participants, including young volunteers and interns, to view the project, which was introduced both as an oral presentation and at an informal buffet.

Marie-Noelle Guilbaud from UNAM Mexico presented the project at the buffet, where participants used the exercises given in ANNEXE 2. Some hundred UNESCO personnel were introduced to the Global Framework through the work sheets. They departed with other versions for their own delegations and colleagues, spreading further the idea of the global framework.

Benjamin van Wyk de Vries gave the main introductory presentation (Figure 1), to the main audience.

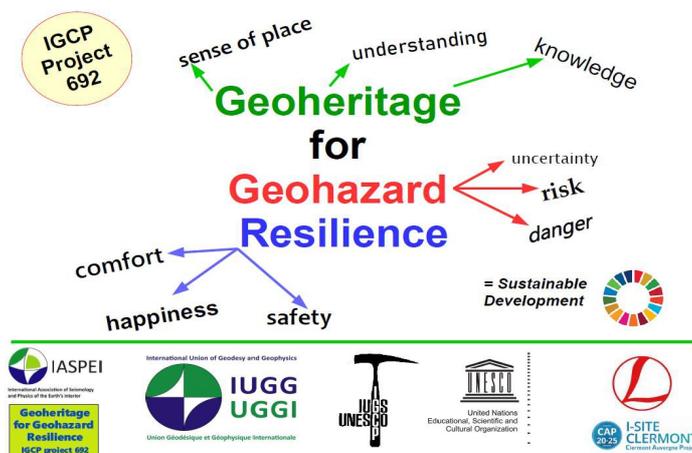
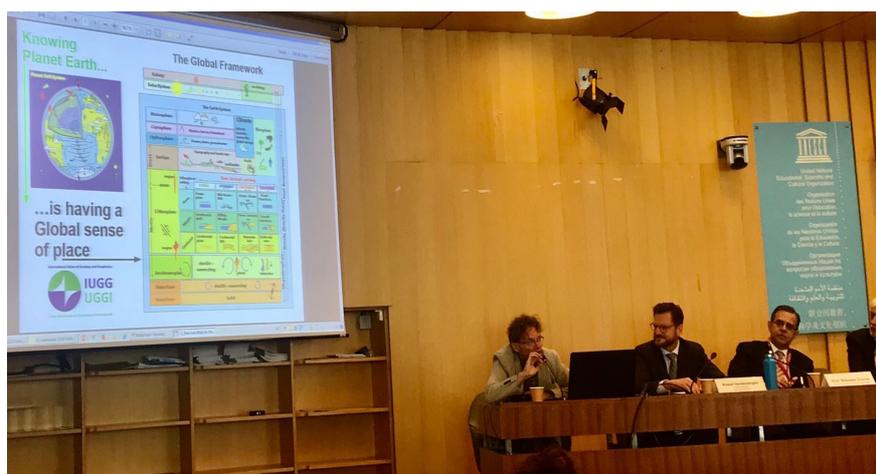


Figure 1. Knowing Planet Earth event at UNESCO in 20th September 2019. Top: The presentation's second slide with the global framework, introduced by Benjamin van Wyk de Vries to the 200 participants. Bottom: Introductory slide with logos explaining the important of Geoheritage to Society

At the UNESCO event, participants were encouraged to fill in the work sheets, where they found their personal place in the global framework and made connections with the UN sustainable development goals. (See Annexe 2).

This game consolidated the participants' idea of the Global Framework in a relaxed manner, anchoring the idea for future development.



Figure 2: Vienna International High School 2019. An introduction of 3D Globes and the global Framework, as a run up to the UNESCO event.

Run up, and continual activities and ongoing finance

The event at UNESCO was preceded at the EGU 2019 by a presentation, a Splinter meeting and a special presentation at the Vienna International School (Figure 2). These were all financed by funds other than the IUGG.

It was mirrored a month later (September – November 2019) in presentations in Arequipa, Peru, with presentations to the San Augustin University, organised for a broad public by the Geological Survey of Péru (INGEMMET), and in Manizales, Colombia, to the 2nd Latin American Geopark Workshop. This latter was as the IGCP Geoheritage for Resilience project was launched in Latin America, the project continues the Knowing Planet Earth project (see www.geopoderes.com). The IGCP project funded, with Clermont Auvergne University these activities.

Further activities were planned for 2020, but the COVID crisis has stopped the in-person events, although the online project has continued with seminars and presentations, and the Geomoji project has advanced in Peru with a 36,000€ (Clermont I-Site funds) project on Geoheritage, that will engrave geomojis, and a version of the Framework in the Arequipa Sillar – the building stone of the World Heritage city (figure 3).

We had planned follow up events in early 2020 in the Auvergne, France and Czech republic, bringing in international young researchers to develop the Global Framework, further. All these planned events from March to June 2020 have been put off until further notice.

The funding for them, from UNESCO International Geosciences Programm, Clermont Auvergne and other sources is frozen on hold, waiting a resumption of normal activities.

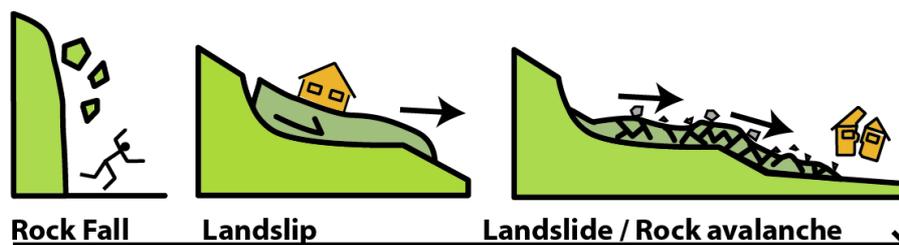


Figure 3. Top: Masons and sculptors of the Arequipa stone Quarries, Peru, drawing their own versions of the geological Framework in a 2019 community workshop. For 2020, we plan to engrave a version of the global Framework on a 4 m – high mural, accessible to all visitors and inhabitants of Aréquipa. This is a continuation of Knowing Planet Earth, developed between the Geological Survey of Péru (INGEMMET) and the Universities of Clermont Auvergne, Saint Augustin and San Marcosin Aréquipa. Bottom: simple Geomoji example for mass movements of rock. Part of a PhD. started in 2020 to develop the Geomoji idea. Part of this project is to introduce human elements into signs to allow make them more relevant and impactful to those who use them. The PhD. will use workshops like the one in Peru to design geomojis from the viewpoint of communities who will use them.

Conclusions

The project was conceived to take the Global Framework idea and Geomojis idea to a wider audience, and to be long term. The IUGG sponsored event at UNESCO has done the job of opening up one large audience, that will continue to be developed, as well as other spheres, especially under the auspices of IGCP project Geoheritage for Resilience. As the UNESCO Geosciences Programme took charge of the finance and organisation of the launch Centenary event, they are implicated in the continuation of the project, partly with the current Geoheritage for Resilience project.

While the COVID crisis has slowed the expansion of these ideas, they have essentially been consolidated and gone online. Despite the crisis, local initiatives, such as the engraving of the Framework and geomojis in Peru's 'Ruta de Sillar' circuit, will provide a lasting legacy in the rocks. The PhD. on Geomojis is a long term commitment to advancing this side of the project.

An outstanding aspect, delayed by the COVID crisis is to follow up on the project with IASPEI, ILP, IAVCEI, and with the Czech National Commission. This can be done trough the participation in the UNESCO Geoheritage for Resilience project, for example, which can channel good community based science on seismic and volcanic risk to a broad audience.

Finance Report

The full amount of the IUGG subvention of 5,000 USD was delivered directly by IUGG to UNESCO International Geosciences Programme (IGCP) (Ozelm Adiyaman Lopez) as a lump sum for the organisation of the September 2019 event. The funds were used by the programme to advertise, book the rooms and provide the catering. We note here to recall that this was done to permit internal UNESCO

tariffs, as otherwise the event would have been beyond the budget. It was also done, so that the Knowing Planet Earth could sit alongside other UNESCO initiatives on a central stage.

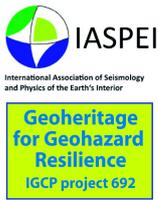
All travel expenses for the event were paid through the University Clermont Auvergne, and/or covered by UNAM's Marie-Noelle's sabbatical.

Subsequent funding for the sustainability Global Framework has come from the UNESCO Geosciences Programme project 692 'Geoheritage for Resilience', which has a budget of about 7000\$ per year 2019-2023, and the 'Geotourism and Resilience' project's 36,000€ grant awarded in 2020. the Geomoji and global glossary PhD is funded at 100,000€ over 2020-2023 by the Auvergne Region of France. These fund will ensure the continuation, consolidation and sustainability of the project.

Adapted budget, after event and increased external funding

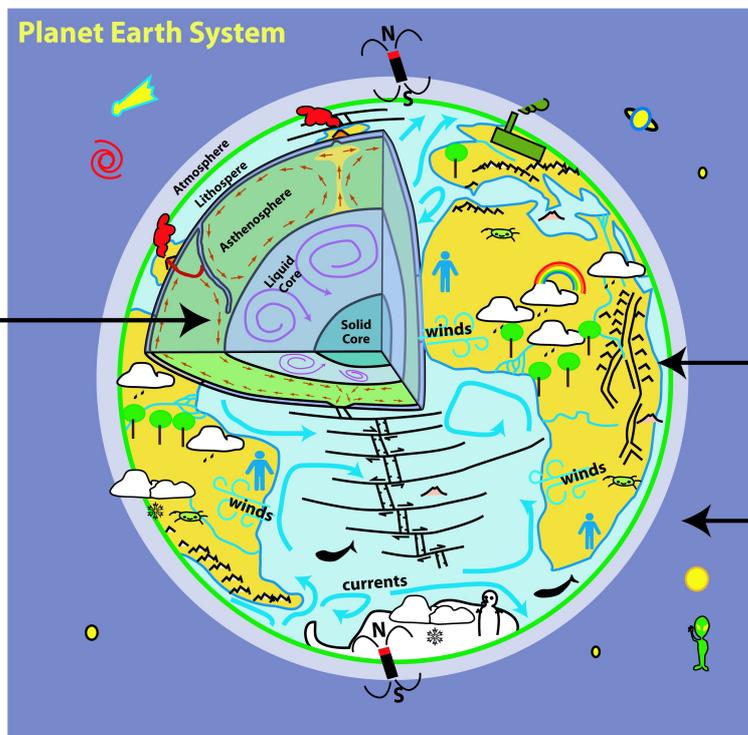
Amount received from the IUGG Grants Program: (See below for breakdown)	5 000\$
Estimated breakdown of cost	
Travel / Accommodation for Meeting(s) – <i>Paris meeting – Covered by Clermont Auvergne grants**</i>	3 000\$
Planning / Coordination (max 20%) - <i>Paris meeting</i>	2 000\$
Other (specify): <i>Forum and UNESCO costs</i>	3 000\$
Amount provided by the applicants:	See below**
Amount sought from other sources (specify): <i>15 000 \$ from the Clermont Auvergne Natural risk program was initially requested. In the event, costs for pre event travel and activities were covered (Vienna High School, EGU) and post event activities such as in Peru, Colombia.</i>	>36,000€
<i>These amount to over 36,000€, not including PhD. funds</i>	
Amount provided from other sources (specify): <i>Each university and organization will provide facilities and videoconferencing materials in kind for the project.</i> <i>Also partly provided by IGCP Project Geoheritage for Resilience, and CAP 20-25 grants</i>	<i>In kind</i>

****Note the original values envisioned 1/4 part IUGG to 3/4 external funding.
In the event, the was 1/6 IUGG to 5/6 external funds.**



Knowing Planet Earth

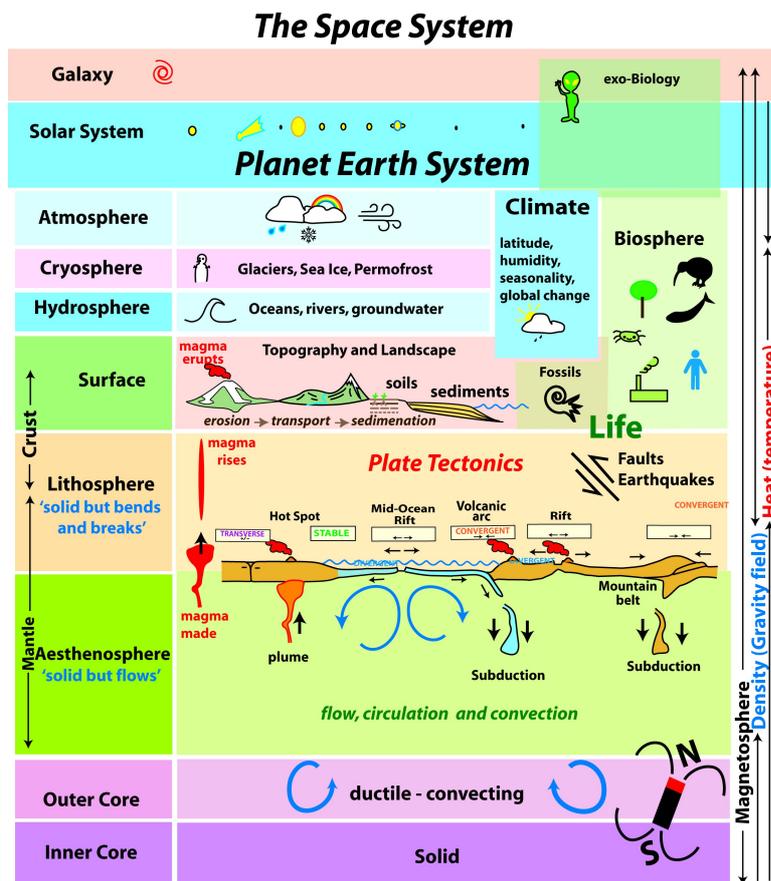
- How well do you know your planet?
- Do you know your place in it?
- Do you know how it works?



**The planet works as *one system*,
from core to space all is connected:
we are all part of this global system**

Come and find your place in Planet Earth

Knowing your planet is the first step to protecting it, and to protecting humankind through sustainable development goals and disaster risk reduction.



We'll give you an essential, and easy to use tool for **Knowing Planet Earth**, based on a simple diagram and visual 'geomojis'

It's fun and immensely useful

Questions: Benjamin van Wyk de Vries (ben.vanwyk@uca.fr)

WHEN: 9 - 13 hrs, 20 September 2019

WHERE: UNESCO, room 9, place de Fontenoy, Paris

WHAT: International Geosciences and Geoparks

Programme information day

(Contact: Ozlem Adiyaman Lopes, o.adiyaman@unesco.org)

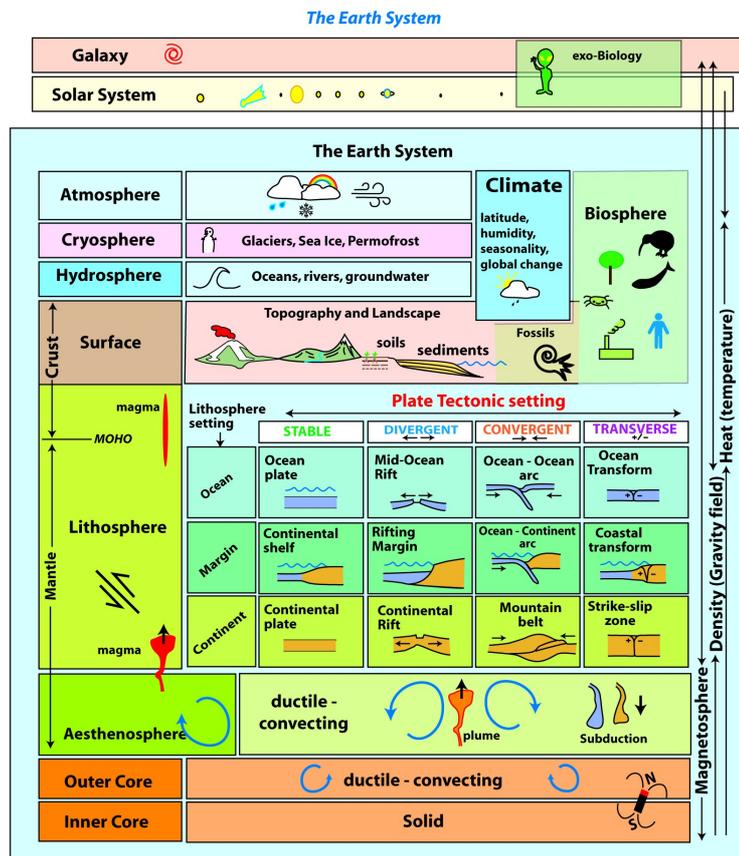
Annexe 2 – Work sheets used in the event at UNESCO

The Global System and where you come from

Every one comes from somewhere, wherever it is can be found on the Global System
 Can you connect where you are on the map to that place on the system?



Tip: think of where your place is in the larger context, what is its climate and environment? What landscape, and what's beneath that?
 What plants and animals? What do the humans do?



The Global System and the Sustainable Development Goals

Every one of the Sustainable Development Goals depends on the global system in some way.

Can you connect the them to different elements on the Global System diagram?



Tip: think of what each goal needs from the Earth, then find where it comes from!

