# IUGS International Union of Geological Sciences Activities' report - Year 2016

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#### 1. Introduction

I replaced Prof. William Cavazza in the role of Italian representative in the IUGS on November 9, 2016, since Cavazza had been elected Vice President of the IUGS, position not compatible with the role of National Representative.

#### 2. Main activities carried on by (Union name) during 2016 relevant for Italy and for CNR

We should keep in mind that the IUGS is mostly active through Commissions (the most important of which is the International Commission on Stratigraphy) and through collaborations with UNESCO. The IUGS promotes every 4 years the International Geological Congress, which in 2016 took place in Cape Town from August 27 to September 4 and was preceded and followed by several field trips.

The participants to the Congress, without taking into account the accompanying members, were 3978, in representation of 118 countries. While decreased in comparison to the preceding Congresses, if we consider the geographical position of the host country and the global economic situation, the total number of participants is an excellent result, which confirms the vitality of the IUGS.

## 3. Activities carried on by (Italian Delegate name) within the Union during 2016 and impact on the Italian scientific community...

I attended as chief of the Italian delegation to the International Geological Congress in Cape Town and not as Italian Representative in IUGS because at the moment in that position was still William Cavazza.

As far as the IUGS International Commission of Stratigraphy is concerned, we should remember that Italian scientists have established the GSSP (Global Stratotype Section and Point) of the Chattian Stage (Oligocene). This GSSP is now the global reference stratigraphic section for the Chattian time interval (28.1-23.03 Ma) and will be the standard comparison for all geologists worldwide. It can be found in the Monte Cagnero section near Piobbico (Marche, Italy). Ten out of the 18 scientists that made the approved proposal are Italian: Rodolfo Coccioni, Fabrizio Frontalini and Marianna Sideri of the Urbino University, Alessandro Montanari (Coldigioco Geological Observatory), Fabrizio Lirer e Mario Sprovieri from the IAMC-CNR, Patrizia Maiorano (Univ. of Bari), Simonetta Monechi (Univ. of Florence), Leonardo Sagnotti (INGV) and Fabio Tateo (IGG-CNR).

After more than 40 years of IGCP (International Geoscience Programme), this very successful program of collaboration with UNESCO underwent an important change. In the effort to strengthen the Earth Sciences in UNESCO, after several meetings between IUGS, some UNESCO Member States and the Global Geoparks Network (GGN), it was proposed that the IGCP Program and the activities of the Global Geopark should merge in a new International Geoscience and Geoparks Programme (IGGP). During the 38th session of the General Conference of UNESCO, the Member States decided to approve the Statutes of the new international program. Also the 195 Member States of UNESCO ratified the creation of a new name: UNESCO Global Geoparks.

IGGP Projects lead by italian scientists during 2016: Project 641 – Deformation fissuration caused by the cultivation of underground fluids (2015-2019). Co-leader: Pietro Teatini, Dept .of Civil and Environmental Engineering and Architecture, University of Padua. Projects with active italian Working Groups in 2016 in at least 8 other IGCP projects.

#### 4. Evaluation of the participation in terms of benefits and membership cost

Geostandards have been the "core business" of IUGS since its foundation in 1961. From stratigraphic classification to igneous petrologic terminology, from the establishment of radiometric decay constants to interlaboratory calibration techniques, IUGS has always stimulated and supported initiatives for developing geostandards. This objective satisfies the IUGS mandate of fostering international agreement on geological matters; facilitating international cooperation in geological research; improving publication, dissemination, and use of coherent geological information internationally.

These kinds of activities are at the base of the work of all geologists worldwide and provide enormous returns -both economically and scientifically- to Italy and to the global society. Everyday geological practice in all fields (industry and resources, hydrogeology, governmental agencies, scientific and academic institutions, among others) is based on IUGS-promoted standards and would be impossible without the activities of the various IUGS bodies.

The Italian geological community has always been a key player in these activities and the involvement of Italian geologists has been highly appreciated, also contributing to raising the visibility and profile of the Italian geosciences community worldwide. From this important viewpoint, the Italian Membership in IUGS is important not only for the country itself but as a contribution to global objectives.

The overall positive perception of the Italian geocommunity within the global geoscience consortium generates important returns in terms of the involvement in (i) international scientific and industrial cooperation programs, (ii) geopolitical bodies, and (iii) competitive calls for funding.

### 5. Evaluation of Italians' attendance and how to improve interest and involvement

The evaluation of Italians' attendance in IUGS activities is positive (see following section) and can also be improved given the presence in the Commission of the Vice President of the IUGS William Cavazza.

# 6. Italian experts with important roles within the Union or within related Commissions and Programs (if known)

- Maria Rosa Petrizzo Chair, Cretaceous Subcommission of the IUGS International Commission on Stratigraphy E-mail: Marco.Balini@unimi.it
- Rosa Maria DI MAGGIO Officer Europe, Initiative on Forensic Geology Email: rosamaria.dimaggio@gmail.com
- Isabella RAFFI Chair, Neogene Subcommission of the IUGS International Commission on Stratigraphy E-mail: raffi@unich.it
- Simonetta MONECHI Chair, Paleogene Subcommission of the IUGS International Commission on Stratigraphy E-mail: monechi@unifi.it
- Ezio VACCARI Vice-President, IUGS Commission on the History of Geological Sciences E-mail: ezio.vaccari@uninsubria.it
- Igor M. VILLA Chair, IUGS Task Group on Isotope Geology and Geochronology E-mail: igor@geo.unibe.ch
- William CAVAZZA IUGS Vice-President E-mail: william.cavazza@unibo.it

#### 7. If Union with CNR Commission, short summary about the 2016 CNR Commission activities

The members of the Commission are: Dr. Marco Amanti, Dr. Carlo Baroni, Prof. Attilio Boriani (Presidente), Dr. Daniela Di Bucci, Prof. Carlo Doglioni, Prof. Massimo Frezzotti, Dr. Biagio Giaccio, Dr. Antonello Provenzale, Prof. Isabella Raffi, Dr. Fabio Trincardi, Dr. Gianluca Valensise, Prof. William Cavazza, IUGS Liaison.

Two official meetings were held at the CNR headquarters in Rome, with particular emphasis on the organisation of the Italian participation in the XXXV<sup>th</sup> International Geological Congress in Cape Town. Informal meetings of members of the Commission were held at national scientific meeting and other circumstances.

An important event connected with the scientific activities of the IUGS was held in Italy: the International Conference on Atmospheric Dust (Castellaneta Marina; 12-17 June 2016) – Sponsored by the IUGS Commission on Geoscience for Environmental Management.

The Italian National Commission for the IUGS is publishing in electronic format an annual report on the International Geoscience Programme (IGCP), which is distributed to the whole Earth Science community through the Italian Geological Society. The report reaches more than 2,000 geoscientists.

The Commissioni is engaged in new initiatives aimed at encouraging the participation to the International Geoscience Programme (IGCP) and in general the IUGS activities.

### 8. Conclusions

I think that the Commission, although with few official meetings due to the lack of funds of CNR, has been working quite well, also thank to the support received by the CNR staff and in particular of Dr. Virginia Coda Nunziante and of Dr. Cecilia Lalle.

Milan, May 10, 2017

Italian Delegate in IUGS

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