



Bringing Geoethics into Society

EOS8 "Geoethics for society: General aspects and case studies in geosciences"

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The responsibility and role of the scientific community in the proper exploitation of natural resources, in the defense against natural hazards and in building geoeconomic strategies for the population are key themes of Geoethics. But, what is the awareness among Geoscientists about the importance of an ethical debate within Earth Sciences? With the goal to increase this awareness, in 2012 the IAPG - International Association for Promoting Geoethics was founded (<http://www.iapg.geoethics.org>). The IAPG aims to join forces of geoscientists all over the world, by creating an international, multidisciplinary and scientific platform for discussing on ethical problems and dilemmas in Earth Sciences, for promoting Geoethics themes through scientific publications and conferences, for strengthening the research base on Geoethics, for focusing on case-studies to be taken as models for the development of effective and operative strategies. The IAPG has obtained the status of affiliated organization by the International Union of Geological Sciences (IUGS), it is among the collaborative organizations of the IUGS - Task Group on Global Geoscience Professionalism (TGGGP), and it has been recognized as an International Associate Organization of the American Geosciences Institute (AGI). The IAPG network is growing fast and currently it is going to reach 500 members in more than 75 countries in 5 continents. The IAPG is working to offer its contribution in building a framework of values for a new model of development, more respectful towards the Geosphere. After 2 years of successful results and numerous ongoing activities, IAPG appears to be on the right way in promoting new ideas to research and practice geosciences. This work aims to give an overview on the IAPG activities, to illustrate the IAPG impact on public through webstatistics, to present publications, events and other initiatives on Geoethics carried out by its members.

Abstract



Geoethics is the research and reflection on those values which underpin appropriate behaviours and practices, wherever human activities interact with the geosphere. Geoethics deals with the ethical, social and cultural implications of Earth Sciences education, research and practice, and with the social role and responsibility of geoscientists in conducting their activities.

What is Geoethics

Geoethics themes

- Geoethics deals with problems related to the **georisks management** and the use of **geo-resources**.
- Geoethics provides **references and guidelines** to find socio-economic solutions compatible with the respect for the environment and the protection of Nature and land.
- Geoethics promotes the **social role** played by Geoscientists and highlights their **responsibilities** in making choices that have repercussions on society.
- Geoethics fosters the **proper and correct dissemination** of the scientific results.
- Geoethics aims to organize effective **teaching tools** to develop awareness, values and responsibility, especially amongst the young people.
- Geoethics promotes the development of geoparks and geo-tourism, in order to create social awareness about the **value of the geological heritage and geodiversity**.
- Geoethics highlights the **usefulness of the geological knowledge in daily life** by promoting disciplines like geo-medicine and forensic geosciences.

- How can we articulate the **ethical criterion** for geoscientists?
- How can the freedom of research and actions be combined with the **principles of sustainability**?
- Where should the line be drawn between preservation and economic development of the geosphere, especially in **low-income countries**?
- How can the relationships between geoscientists, media, politicians and citizens be made more profitable, particularly in the **defense against natural hazards**?
- What communication and educational strategies should be adopted to **transfer the value of the geosciences to society**?



The IAPG - International Association for Promoting Geoethics is born in 2012 to try to answer to these questions

The IAPG is a multidisciplinary, scientific platform for widening the debate on problems of Ethics applied to the Geosciences

5 questions for Geoethics



The IAPG headquarter in Rome (Italy), c/o Italian Institute of Geophysics and Volcanology (INGV)

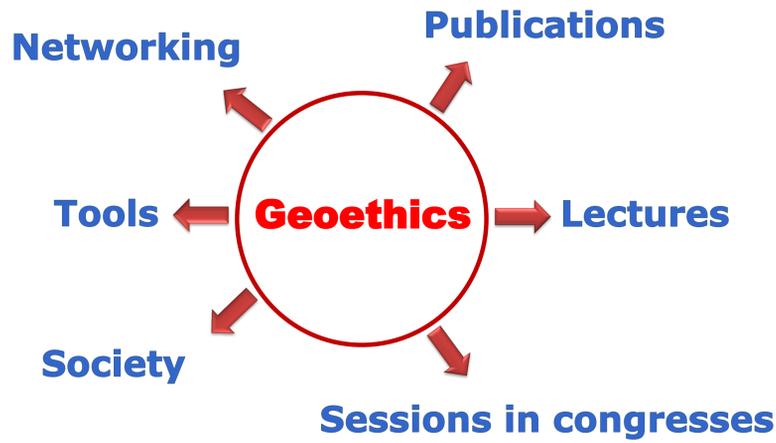
The 4 levels of Geoethics



The IAPG mission

Promote Geoethics values and principles through international cooperation. Foster the dissemination of Geoethics, increase the research base on Geoethics. Identify methods for its more effective application. Reflect on the role that geoscientists can have in society. Raise awareness about geoscientist's responsibility.

What is the IAPG



Publications

Books on Geoethics



4

Sessions in congresses

7



EGU GENERAL ASSEMBLY (Vienna, Austria) 2013
Geoethics and natural hazard: the role and responsibility of the geoscientists

2014
Geoethics: Ethical Challenges in Communication, Geoeeducation and Management of Natural Hazards

2015
Geoethics for society: General aspects and case studies in geosciences

GEOITALIA CONFERENCE 2013
Geoethics and Society: Geosciences serving the public

IAEG XII INTERNATIONAL CONGRESS 2014
Geoethics and natural hazards: communication, education and the science-policy-practice interface

AGU FALL MEETING 2014
2014
- Teaching GeoEthics Across the Geoscience Curriculum
- Solution and Strategies for fostering GeoEthics and Enhancing the Geosciences Section

Networking

National sections



12

Lectures

4



Logan Club of the Geological Survey of Canada
The L'Aquila earthquake-case and the importance of geoethics
Ottawa (Canada), 10 May 2013

Ethics breakfast at the Offshore Technology Conference (OTC)
Geoethics: A Way of Thinking and Practicing Geosciences
Houston, Texas (USA), 5 May 2014

European Federation of Geologists workshop
Geoethics: themes, goals and ongoing initiatives
Palermo (Italy), 29 May 2014

Workshop "Teaching GeoEthics Across the Geoscience Curriculum"
The foundations of Geoethics
Montana (USA), 10-13 June 2014

Corresponding Citizen Scientists

7



- Interdisciplinary explorations for main-streaming interest in Earth sciences topics (Martin Bohle).
- Research integrity (Tony Mayer).
- Geoethical aspects in low income countries (Madhumita Das).
- Geoscience communication (Nic Bilham).
- Geoethics and young geoscientists (Ciro Manzo).
- Geo-education and Teaching Geoethics (David Mogk).
- Geoethics in Engineering Geology (Luis González de Vallejo).

Dissemination of Geoethics towards Society

- Italian Science Festival 2013 and 2014 (Genoa, Italy): two conferences.
- EduScienza YouTube Channel: Nautilus – RAI Cultura (Italy): video-interviews.
- Conference on Geoparks network 2014 (Amman, Jordan).
- Day for Earth Sciences in Africa and Middle East (DESAME): courses for teachers and students.
- Courses on geoethics for professional geologists in Texas and Italy.

Tools

5

The Geoethical Promise

Research Integrity Statements

Codes of Ethics/Conduct

Teaching Geoethics

EurGeol Title

Affiliations and Agreements

6



Affiliations
IUGS - International Union of Geological Sciences
AGI - American Geosciences Institute
GSA - Geological Society of America

Agreements
EFG - European Federation of Geologists
EGS - EuroGeoSurveys
ANGE - African Network for Geo-Education

The challenge

Geoethics in UE - Horizon 2020



European multidisciplinary seafloor & water column observatory
<http://www.emso-eu.org>

NEW Ethical Committee in EMSO
Activities on Geoethics in ENVRIPLUS

Statistics

(update: April 1st, 2015)

IAPG Members	Linkedin Group members	Facebook "I like"	Twitter followers	Website visitors	Website visits
580	615	2120	770	7000	15500

in 88 countries

The IAPG is legally recognized as a not-for-profit association and lives with donations through its bank account.

Become an IAPG member. No fee is due. Go to the website and choose your user and password

