




## Cultivating talents through development of skills and international cooperation

Mounir GHRIBI, Ph.D.  
 Research Promotion and International Cooperation  
 OGS (National Institute of Oceanography and Applied Geophysics) Trieste, ITALY  
 Tel.: + 39 040 2140269 Mobile: +39 347 1675996 e-mail mghribi@ogs.trieste.it;  
 ricerca@ogs.trieste.it



## Growing talented people

International cooperation together with a national strategy for the development of skills that progressively integrates academic study with continuous learning process through productive work experiences, pave the way to cultivate and grow talents.

## What is a talent?

Person's:


- abilities
- competency
- skills
- knowledge
- experience
- intelligence
- character
- personal drive (for example entrepreneurial behaviour)
- judgement
- attitude
- dynamism
- good will
- ability to learn and grow



## Curriculum development based on the occupational needs

Job dissatisfaction despite low occupation opportunities is an indicator on job match quality.


Often jobs are not responding to employee's qualification and occupational needs are not fulfilled.

## Career development

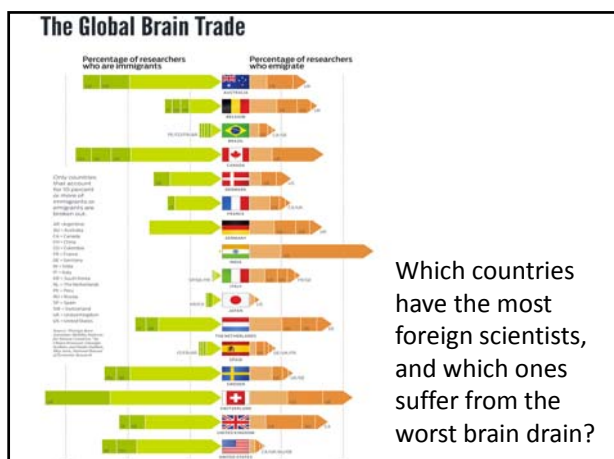
The desire for fulfilling work — a job that provides a deep sense of purpose, and reflects our values, passions and personality — is a modern invention.

## From: Brain Drain To: Brain Gain



The movement of skilled talents internationally represents brain gain for the countries that reap their skills and experience and brain drain for their countries of origin.

On the brain gain side of the divide, countries increasingly are looking to position their immigration policies to attract the types of international workers and students whose skills they desire. On the brain drain side, the development impacts of losing educated workers are being assessed in immigrant-sending.



## National Institute of Oceanography and Applied Geophysics



OGS is a public research Institute operating under the aegis of the Italian Ministry of Education, Universities and Research – MIUR. The Institute performs its research projects, skills development, services and knowledge transfer initiatives worldwide.



### Fields of operations

The Institute operates in fields related to environmental protection, sustainable economic development and societal inclusion through tailored made initiatives in order to evaluate and prevent geological, environmental and climatic risks, with the aim of spreading scientific culture and knowledge, building capacities and transferring knowledge.

### Areas of intervention and ways of cooperation

The Institution is particularly interested in fostering international cooperation through:

- providing expertise;
- conducting researches;
- providing services;
- managing projects and carrying out work packages within projects;
- hosting fellows and study tours (international mobility);
- training of trainers, summer schools, workshops;
- delegate trainers and/or speakers for conferences, workshops or trainings.

### Main research fields

With its strong international vocation, OGS focuses on the following main research themes:

- Blue growth (marine and maritime sectors and inland waters);
- Environment and climate (climate and ecological modelling, polar research);
- Biodiversity and ecosystem functionality (oceanography and marine geophysics and biology);
- Earthquakes and natural hazards (marine geohazards and seismology);
- Natural resources (gas hydrates);
- Secure, clean and efficient energy (geothermal research, induced seismicity).

### Specific research fields

- Remote sensing, environmental engineering and mapping;
- Applied geophysics and seismology;
- Identification and evaluation of inshore and offshore mineral and energy resources such as geothermal energy;
- Development of environmentally friendly technologies and their exploitation;
- Marine sciences, related in particular to the interaction of the oceans with the atmosphere and the lithosphere;
- Study of the seismicity, hydrodynamic and geodynamic phenomena having an impact on the environment and population, also for civil protection purposes;
- Integration of cross-cutting research and capacity-building activities.



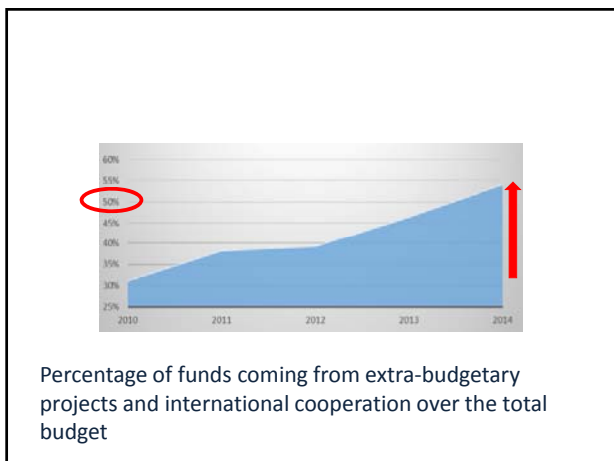
## Research infrastructures

OGS manages important multidisciplinary research infrastructures to boost cooperation and mobility of people and ideas, and put together the best European and worldwide scientists in order to strengthen their skills, enhance their career development and create a network of potential future leaders.



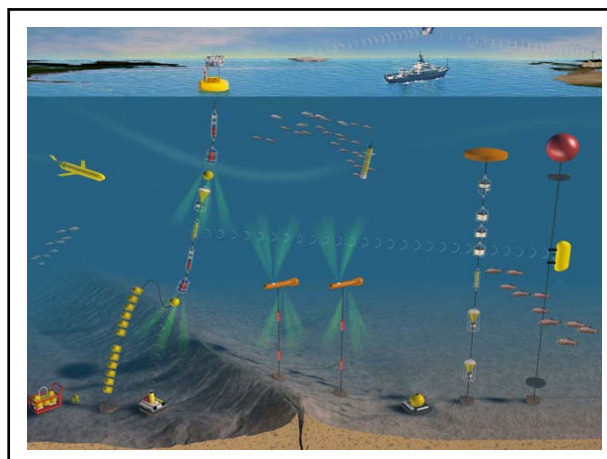
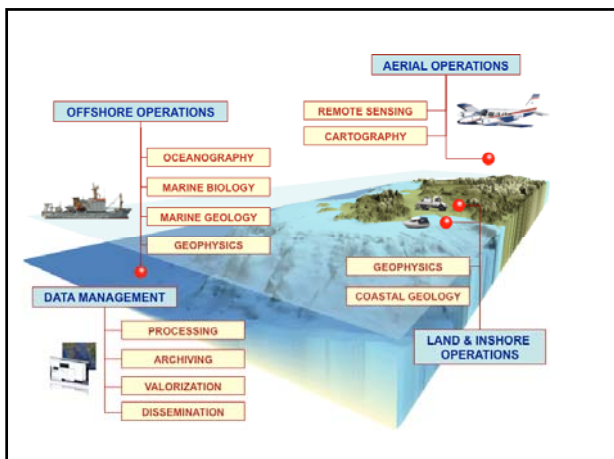
## OGS Research Vessel Explora

Moreover, the Institute is involved, with its own research vessel (OGS Explora), in geophysical investigations, as well as important oceanographic projects, climate studies and secure energy initiatives in various parts of the world.



## Providing services

- Giglio Island;
- Earthquake in Emilia;
- Golf of Trieste;
- Collaboration with Civil Protection.



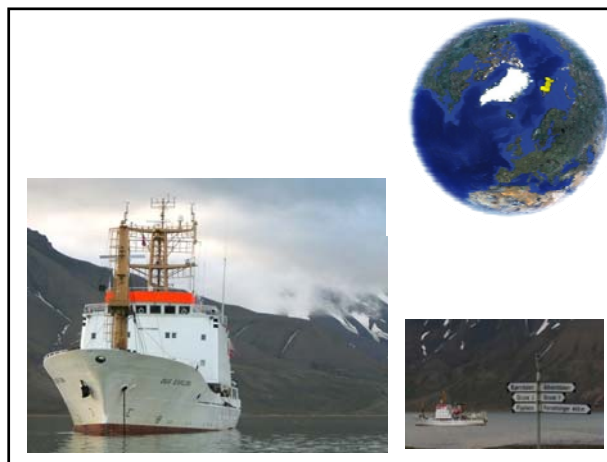
### Geographical areas of interest

Polar Areas,  
Mediterranean  
Region, South  
East Europe,  
Balkan Countries,  
Adriatic-Ionian  
Region, etc.




Partnerships in  
Asia, Latin  
America, Africa  
with focus on  
Developing  
Countries and in  
transition-  
economies'  
Countries.







### OGS participation to national and international networks for research or/and infrastructures

	37	
	21	
	16	

## JPI Oceans is open to all EU Member States and Associated Countries who invest in marine and maritime research.



**ITALY**

National Institute of Oceanography and Experimental Geophysics (OGS)  
Consorzio Interuniversitario




Italian Ministry of Infrastructure and Transport, Directorate of Maritime Transport and Inland Waterways  
Consorzio Interuniversitario

Italian Consortium for Managing research Activities Venice Lagoon (CORILA)  
Consorzio Interuniversitario

National Research Council of Italy, Marine Technology Research Institute (INSEAN-CNR)  
Consorzio Interuniversitario



Representative of the Italian Ministry of Education, University and Research (MIUR) in the Western Mediterranean Forum (Dialogue 5+5)

Western Mediterranean Forum (Dialogue 5 +5), Rabat, 27-28 February 2014

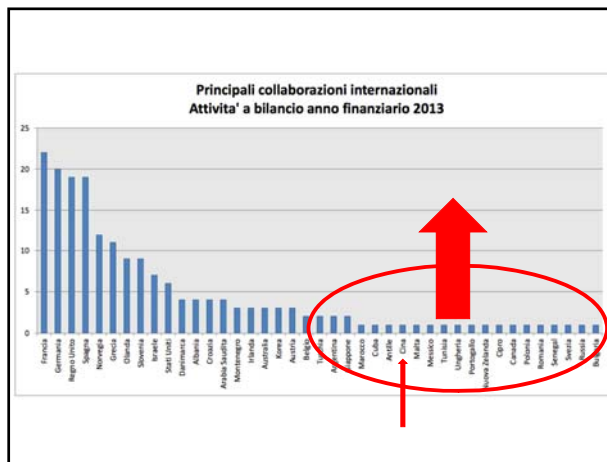
It is a sub-regional cooperation in the Mediterranean. Countries are France, Italy, Malta, Portugal, Spain and Algeria, Libya, Morocco, Mauritania, Tunisia.

## International collaborations (2013)

1. France
2. Germany
3. United Kingdom
4. Spain
5. Norway
6. Greece
7. Netherlands
8. Slovenia
9. Israel
10. United states



11. Denmark
12. Albania
13. Croatia
14. Saudi Arabia
15. Montenegro
16. Ireland
17. Australia
18. Korea
19. Austria
20. Belgium



## Joint commission for scientific and technological cooperation



OGS participated to the following meetings:  
 Italy-Israel, Rome, 14 October 2013;  
 Italy-Brazil, Rome, 24 October 2013;  
 Italy-U.S.A., Rome, 26 November 2013.

OGS prepared the following country profiles:  
 Argentina, Brazil, China, France, Greece, Israel, Saudi Arabia, Spain, Turkey

## 2014 OGS fellowship programme

- 20 fellows (assegno di ricerca) = mainly post-doc fellowship grant including 1 from Greece, 1 from France, 1 from Israel;
- 7 fellows (borsa di studio) including 1 from Croatia, 1 Serbian, 1 Montenegrin, 1 Albanian;
- + Erasmus
- Ph.D. in collaboration with universities
- Cofund TRIL
- Marie Skłodowska-Curie actions (MSCA)



## Reinforcing the OGS involvement in the Marie Skłodowska-Curie actions (MSCA)



Mobility opportunities and international networking and intersectoral for researchers: [Marie Skłodowska-Curie Actions](#), [COST Actions and Opportunities for transnational access to Research Infrastructures](#).

The aim is to stimulate regional, national or international programmes to foster excellence in researchers' training, mobility and career development, spreading the best practices of Marie Skłodowska-Curie actions.

## Marie Skłodowska-Curie Actions

- Research training and career development;
- International and intersectoral mobility;
- Partnerships between academic and non-academic organizations;
- Doctoral programmes;
- Staff exchange;
- Outreach activities.

## Career development opportunities

The Marie Skłodowska-Curie actions (MSCA) help fund career development opportunities for researchers at all stages of their careers.

It encourage the development of skills for innovation in all scientific disciplines, through worldwide and cross-sector mobility.

## Transferable skills

The scheme offers high-quality and innovative research training and knowledge sharing opportunities in the academic and non-academic sectors.

A strong emphasis is given to the enhancement of transferable skills, entrepreneurship, management and financing of research activities and programmes, management of intellectual property rights, ethical aspects and communication.

## Public outreach activities

The MSCA ensure attractive employment and working conditions for researchers. For instance, funded research projects must promote gender balance and equal opportunities.

Funded beneficiaries are also required to undertake public outreach activities to bridge the gap between science and society, raising awareness of the impact of researchers' work on citizens' daily lives.

## Which action?

	Individual apply	Host applies		Funder applies
Instruments	IF – Individual Fellowships (Going further in your research career)	ITN – Innovative Training Networks (Training future generations of researchers)	RISE – Research and Innovation Staff Exchange (Knowledge sharing across sectors and borders)	COFUND – Co-funding of regional, national and international programmes (Broadening horizons)
Aims	Enable talented researchers to work on projects within or outside Europe	Promote innovative research and doctoral training in Europe. Develop researchers' skills for innovation within and outside academia	Stimulate more interaction between academia and non-academia, in different countries and sectors. Enhance the interactional dimension of research and innovation	Support regional or international programmes to foster excellence in human resources development in research and innovation.

## New forms of mobility

- Project based assignments;
- More intra-country and less international mobility;
- One-way relocation in most countries;
- Less opportunities for job prospective;
- Virtual mobility (thanks to the advancement in ICT)

## Executive Coaching, Leadership and Interpersonal Skills Development



## Move the experts ... or move the work



Present work at a convenient, comfortable height (and angle).



Sometimes it's easier to move the experts, instead of the work

## Talent management strategy

Talent mobility has become a mainstream talent management strategy because of its ability to help institutions more effectively acquire, align, develop, engage and retain their high performing and potential talents.



## Fellowships for Europeans and Chinese researchers



- 1) Marie Curie International Outgoing Fellowships for Career Development – suitable for European Researchers interested to spend some period in China
- 2) Marie Curie International Incoming Fellowships (IIF) – suitable for Chinese Researchers interested to spend a period up to 2 years in a European Institution

## Recent OGS initiatives on capacity building and international cooperation





## Objectives

- ❑ to train new generation of creative and innovative researchers able to convert the knowledge and ideas into products and services for the benefit of the society;
- ❑ to improve career perspectives of young researchers;
- ❑ to promote the excellence in science through the cross-border and inter-sectorial mobility;
- ❑ to stimulate innovation through the knowledge exchange and technology transfer.



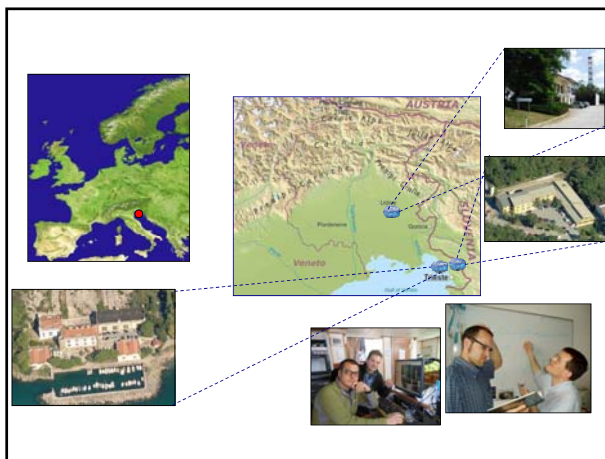
## Talents' attraction instruments

As hosting institution for international mobility and events, OGS eases the integration of hosted participants from other countries by giving practical information on entry and residence procedures, health insurance, accommodation, Italian taxation and social security system, daily life, tax identification number and much more through the Friuli Venezia Giulia Welcome Office ([www.welcomeoffice.trieste.it](http://www.welcomeoffice.trieste.it)). Moreover, OGS, in collaboration with the ICTP (International Centre for Theoretical Physics) promotes classes in Italian language for foreign students and researchers.



## Development of skills through training opportunities

- ❑ Attraction and circulation of talents
- ❑ International mobility
- ❑ International doctorate research in collaboration with universities
- ❑ Summer schools



## Trieste

- ❑ Science and technology hub
- ❑ Large community of Italian and foreign scientists
- ❑ At the heart of the enlarged Europe







Training and Research in Italian Laboratories

## TRIL

Joint project OGS-ICTP

During the period 1985-2013, 49 fellows (13 females and 36 males) from 26 countries have been granted TRIL fellowships and supported by OGS. Two fellows from Cuba are hosted by OGS-CRS.

<http://www.ictp.it/tril>

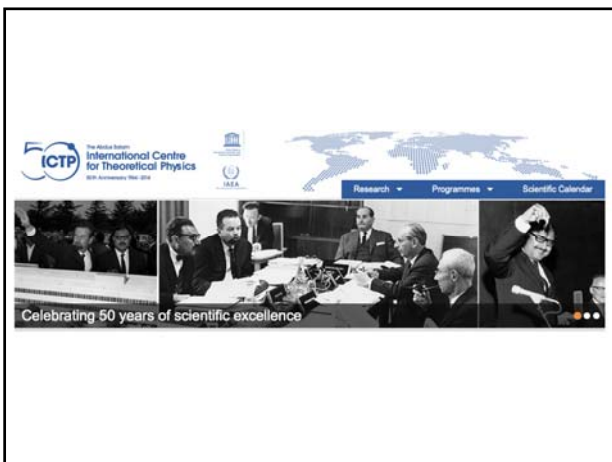
## ICTP-IAEA Sandwich Training Educational Programme

The Sandwich Training Educational Programme (STEP) aims at offering fellowship opportunities to Ph.D. students from developing countries in the fields of physics and mathematics.

The goal of the STEP is to strengthen the scientific capability of young scientists and researchers from developing countries to better contribute and serve the scientific, technical, and economic development of their home countries.

The STEP offers fellowships to candidates from the IAEA member States in the following fields:

- Atomic and nuclear physics
- Nuclear, isotope and laser techniques applied to:
- Human health
- Agriculture
- Biotechnology and biophotonics
- Water resources and environmental studies
- Synchrotron radiation and applications
- Medical radiation physics



## Know-how Exchange Programme (KEP)



Joint project OGS-CEI

Capacity building and transfer of knowledge for increasing and improving professional skills in the field of secure, clean and efficient energy in Albania, Montenegro and Serbia.

- 3 workshops in Albania, Montenegro and Serbia
- One Training Course (Trieste, 13-17 October 2014)
- 3 fellows (3 months fellowships for Albania, Montenegro and Serbia)

## Beneficiary Institutions

**Association of Geophysicists and Environmentalists of Serbia, AGES – SERBIA**  
Contact: Snezana Komatina Petrovic, President

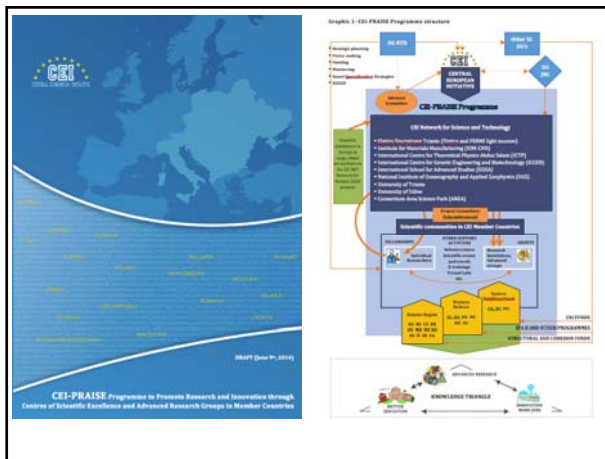
**Association of Geophysicists and Environmentalists (AGES)**



**Geological Survey of Montenegro – Podgorica**  
Contact: Dr. Slobodan Radusinovic, Deputy Director)



**Department of Energy Resources, Faculty of Geology and Mining – ALBANIA**  
Contact: prof. Baskim Cela, Head of Department



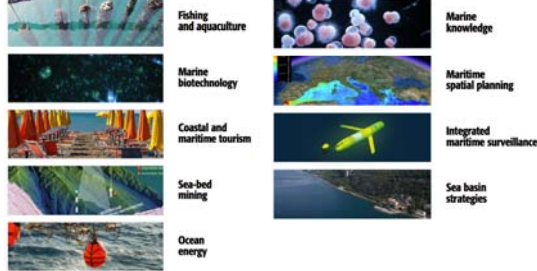
**SUMMER SCHOOL IN SUSTAINABLE BLUE GROWTH IN SOUTH EAST EUROPE**  
 A joint project OGS-Robert Bosch Foundation



Human resources development and strengthening of professional skills in **South East Europe** (Summer School, Trieste, 14-18 July 2014).

The training is addressed to participants from South East Europe: namely Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Macedonia, Moldova, Montenegro, Romania, Serbia, Slovenia, Turkey and Ukraine and participants from Italy and Germany.

**BLUE GROWTH**  
 Long term strategy to support smart, sustainable and inclusive growth in the marine and maritime sectors



**International Ph.D. Program**

**ESFM**  
 Earth Science and Fluid Mechanics

The University of Trieste (UniTS)  
 The National Institute for Oceanography and Applied Geophysics (OGS)  
 The Abdus Salam International Center for Theoretical Physics (ICTP)

<http://phdfuidmechanics.appspot.com/>

International Ph.D Program

Active since 2005

About 20 students graduated over the years and now working in international distinguished Institutions

More than 50% of students coming from abroad

Main themes

- Theoretical and applied Fluid Mechanics
- Geophysical and Environmental Fluid Mechanics
- Underground fluid injection

**OGS internationalization - the Brazilian Science without Borders programme**



National Development Strategy

- Massive investment in education & research skills development knowledge-based economy;
- Focus on national strategic challenges (Engineering and other technological areas); Promotion of industrial R,D&I.

Programme Objectives

- Boost Brazilian science, technology, innovation and competitiveness through the expansion of international mobility (100.000 fellowships in 4 years);
- Increase the presence of Brazilian researchers and students of various levels in institutions of excellence overseas (OGS will be one of them);
- Attract young scientific talents and highly qualified researchers to work in Brazil.



## Public outreach and awareness building



- Open Day
- Attract youth
- Science Caffè
- Study tours and visits
- Researchers' night



## European researchers' night

- **Hands-on experiments** conducted by researchers;
- **Science shows** with public participation;
- Debates;
- **Competitions** (science quizzes, games, photo, etc.)
- **Workshops** for children;
- **Researchers dating** (meet researchers);
- **Science slams**;
- **Guided visits** of labs, research institutes, and other relevant places that usually closed to the public.

Thank  
You

mghribi@ogs.trieste.it