United Nations
Educational, Scientific and
Cultural Organization

Natural
Sciences
Sector

UNESCO Science for Sustainable Development

COMMUNITIES AND NETWORKS: INSTITUTES, CENTRES, CHAIRS

Reaching out: harnessing the power of scientific communities and networks to build capacity in science; reaping the benefits for developing countries

Over the last 65 years UNESCO has built capacity in science worldwide by initiating, sponsoring and promoting the establishment of major scientific institutes, centres of excellence and Chairs in scientific disciplines. Examples include the International Union for Conservation of Nature (IUCN, 1948) and the European Organization for Nuclear Research (CERN, 1954).

Today, UNESCO's Institutes, centres and Chairs in science constitute a powerful network to build capacity in science to achieve sustainable development and to contribute to the achievement of the Millennium Development Goals.

UNESCO INSTITUTES AND CENTRES IN SCIENCE

CATEGORY I Institutes which are an integral part of UNESCO include the UNESCO-IHE Institute for Water Education, in Delft in the Netherlands and the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste in Italy. Although operating with significant autonomy, the programmes of these institutes are an integral part of the UNESCO Natural Sciences Sector programme. These institutes build scientific capacity in Member States, essentially in developing countries.

CATEGORY II are institutes and centres under the auspices of UNESCO which are not legally part of the Organization, but are associated with it through formal arrangements approved by the General Conference. They contribute to the execution of UNESCO's programme through capacity building, through exchange of information in a particular discipline, through theoretical and experimental research and advanced training. There are over 25 UNESCO Category II Centres in science covering the following fields:

- Water sciences
- Renewable energy
- Science policy
- Geosciences
- Biotechnology

CATEGORY I INSTITUTES

UNESCO-IHE INSTITUTE FOR WATER EDUCATION, located in Delft, the Netherlands, one of the few institutions in the UN system authorized to confer accredited MSc. degrees was established as a UNESCO Institute in 2003. Since its inception in 1957, IHE – as it was known – has provided postgraduate education to more than 14,500 professionals (engineers and scientists) almost entirely from 160 developing and transition countries. It has also graduated more than 75 PhD candidates and executed numerous research and capacity building projects throughout the world.

Today UNESCO-IHE carries out research, education and capacity building activities in the fields of water, environment and infrastructure. Jointly owned by UNESCO and the Government of the Netherlands it aims to strengthen and mobilize the global educational and knowledge base for integrated water resources management and to contribute to meeting the water-related capacity building needs of developing countries and countries in transition. It serves as an international standard-setting body for postgraduate water education programmes and continuing professional training concentrating efforts on building human and institutional capacity through education, training and research.

UNESCO-IHE aims to:

- Offer education, training and research programmes;
- Provide capacity-building services particularly for developing countries;

UNESCO Science for Sustainable Development

COMMUNITIES AND NETWORKS: INSTITUTES, CENTRES, CHAIRS

- Set up and manage networks of educational and water sector institutions and organizations worldwide;
- Serve as a 'policy forum' for UNESCO Member States and other stakeholders;
- Provide professional expertise and advice on water education;
- Play a leadership role in international standard setting for postgraduate water education programmes and continuing professional education.

www.unesco-ihe.org/

THE ABDUS SALAM INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS (ICTP) located in Trieste, Italy, is a UNESCO institute by virtue of the Tripartite Agreement signed by UNESCO, the International Atomic Energy Agency (IAEA) and the government of Italy and ratified by the Italian parliament in January 1995. Founded in 1964 by Nobel Laureate Abdus Salam, the ICTP promotes advanced studies and research in physics and mathematics, with special emphasis on developing countries.

The ICTP:

- provides opportunities for scientists from developing countries to visit the centre and participate in world-class research conducted by its scientific staff and other scientists in Trieste and elsewhere;
- creates international fora for the exchange of scientific information through schools, workshops and conferences;
- offers pre-PhD-level educational programmes to students from the least developed countries.

The ICTP provides scientists from developing countries with continuing education and contact with a broader scientific community in order to enjoy productive and stable careers in their own countries. Over the past 45 years, nearly 110, 000 visitors from 184 countries have visited ICTP to conduct research and discuss the latest findings in their fields. The centre has also long been valued as a cultural melting pot.

The ICTP pursues scientific research in a variety of fields, including:

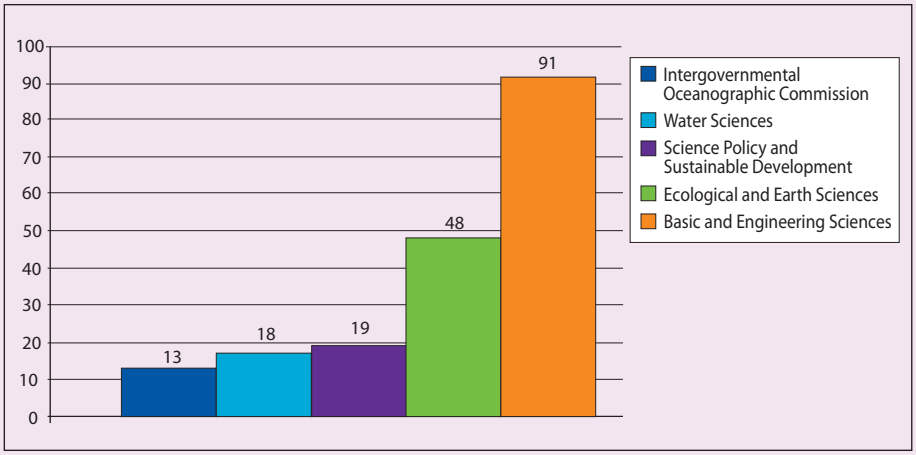
- Applied Physics;
- Condensed Matter and Statistical Physics;
- Earth System Physics;
- High Energy, Cosmology and Astroparticle Physics;
- Mathematics.

Every year, the ICTP organizes around 50 international conferences and workshops in cooperation with the world scientific community. These activities keep the centre at the forefront of global scientific research and enable staff scientists to offer ICTP associates, fellows and conference participants a broad range of research and learning opportunities. The centre is linked to scientific data bases around the world and boasts one of the finest libraries of its kind in Europe.

The ICTP is administered by UNESCO. The Centre is funded largely through a generous grant from the government of Italy, with additional funding being provided by UNESCO and the IAEA. The budget is supplemented by programme funds contributed by a number of organizations, including the European Commission, the Swedish International Development Cooperation Agency and the Kuwait Foundation for the Advancement of Sciences.

www.ictp.it/

As part of its mandate, the **UNESCO INSTITUTE OF STATISTICS (UIS)** collects and disseminates science statistics across the United Nations system gathering data from more than 200 countries and territories through its biennial survey and partnerships with key organizations. Science statistics are used in particular to compile the UNESCO Science Report.



Number of Natural Sciences Chairs vs. programmes

CHAIRS IN SCIENCE

UNITWIN is the abbreviation for the UNESCO university twinning and networking scheme. The UNITWIN/UNESCO Chairs Programme promotes the establishment of UNESCO Chairs and UNITWIN Networks in higher education institutions. The aim is to build capacity in higher education and research institutions through the sharing and exchange of knowledge in a spirit of international solidarity and to promote North-South, South-South and triangular cooperation as a strategy to develop institutions.

Well over 200 of the university Chairs in the UNESCO/UNITWIN Chairs programme are in the field of the natural sciences with a majority in the field of basic and engineering sciences. These are set up to develop UNESCO's programmes in science in particular in priority areas such as Africa and gender equality, and to harness the power of networking of universities and centres of excellence.

FOR FURTHER INFORMATION CONTACT:

Executive Office
Natural Sciences Sector
1, rue Miollis
75732 Paris Cedex 15, France
sc.communication@unesco.org
www.unesco.org/science