



# European Union Contest for Young Scientists

September 2001  
Grieghallen, Bergen, Norway



EUROPEAN COMMISSION  
RESEARCH DIRECTORATE-GENERAL





His Royal Highness Crown Prince Haakon of Norway  
patron of the 13th European Union Contest for Young Scientists

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## SHORT PROGRAMME

### Saturday 15 September

- Arrivals
- Get together at Bergen Aquarium

### Sunday 16 September

- Excursion Sogn with hydroelectric power, train and tunnelling technology, high speed catamaran and visit to a traditional Norwegian stave church

### Monday 17 September

- The EU Contest Lecture by Dr. Helge Drange of the G.C. Rieber Climate Institute at Nansen Environmental and Remote Sensing Centre
- Reception at the University of Bergen, Faculty of Law at Dragefjellet

### Tuesday 18 September

- Opening Ceremony in presence of Minister for Education, Research and Church Affairs Trond Giske and Mayor of the City of Bergen Ingmar Ljones
- Lunch hosted by the City of Bergen
- EU Research Symposium (about research co-operation; in Norwegian)

### Wednesday 19 September

- Official Exhibition Open Day
- European Patent Office Lecture by EPO-Examiner Pamela Moskowitz

### Thursday 20 September

- Meeting of the Nobel Minds with Professor Ivar Giaever, Professor Sir Harold Kroto, Professor Ben Mottelson, Professor Jens Skou and Professor Gerardus 't Hooft
- Concert at Edvard Grieg's Home "Troidhaugen"
- Tour of Bergen

### Friday 21 September

- Special Awards Presentations: The European Northern Observatories, The European Space Agency, The Ny-Ålesund Large Scale Facility and The European Space Camp Andøya
- Award Ceremony at King Haakon's Hall in the presence of HRH Crown Prince Haakon of Norway, Director-General Achilleas Mitsos of DG Research, the European Commission
- Final reception in King Haakon's Hall

### Saturday 22 September

- Departures

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## THE PRIME MINISTER OF NORWAY



It gives me pleasure to welcome the participants to the 13th European Union Contest for Young Scientists in Norway.

I am happy that Norway is hosting such a prominent science event for young people. Research and development play an increasingly important role in society. We need many good scientists in the future, and I am certain that your enthusiasm and dedication will reach out to other young students who are about to make their career choices.

As winners of national youth science contests you have already proven yourselves as talented young scholars in your own countries. The European Union Contest offers a unique opportunity to establish scientific as well as social contacts with colleagues in other countries.

Norway is committed to international research co-operation at all levels, also within the framework of the European Research Area.

I trust that the Bergen conference will prove to another successful chapter in the history of the European Union Contest for Young Scientists.

Wishing you all success in your scientific careers, I remain,

Yours Sincerely,

A handwritten signature in black ink that reads "Jens Stoltenberg". The signature is written in a cursive style. Below the signature, the name "Jens Stoltenberg" is printed in a small, black, sans-serif font.

## THE COMMISSIONER FOR RESEARCH



Supporting Europe's youngest scientists is important to ensure the future of the research community and the building up of the European Research Area. We need to look to the future and we have a duty to support our bright young members of society. The young people who annually attend the EU Contest are likely to include those who will have an important impact on science in years to come.

The contest continues to provide an interesting opportunity for young scientists to be exposed to the world of European science at an early age. The participation to the contest gives them the opportunity to develop contacts with other young people in their areas of mutual interest and to exchange fruitful experiences. It is an effective means to encourage today's young scientists to develop their ideas and creativity for the science of tomorrow.

In this context, I deem it important that the European Commission, in collaboration with other European research organisations, contributes to the initial development of the scientific careers of the young participants by means of the special prizes, which facilitate their early contacts with outstanding scientific and technological centres.

A testimony of the successful formula of the Contest is that again five of today's Europe's leading scientists will be visiting the Contest to help impart some of their achievements in science to tomorrow's generation.

My sincere thanks to them and to all who have made possible this 13th EU Contest for Young Scientists.

*Philippe Busquin*

## THE CHIEF COMMISSIONER OF THE CITY OF BERGEN



On behalf of the city of Bergen it is a pleasure for me to welcome you to the 13th European Union Contest for Young Scientists. Bergen is the second largest city in Norway and was founded more than 900 years ago.

As you will see, the city is embraced by several mountains, seven in total. This, however, has not prevented Bergen from being an internationally oriented city. For centuries our harbour was the main junction to the rest of the world. Today Bergen is an international city within a wide range of areas in addition to trade and industry; tourism, culture and, last but not least, research and education.

The University of Bergen, The Norwegian School of Economics and Business Administration and regional colleges has 25000 students including a significant amount of exchange students in Bergen. Within some areas Bergen has the leading research centres in the world with both Norwegian and foreign researchers.

In an age where technological and scientific progress is moving faster than ever before, international relationships and exchange of competence is of great importance. This Contest is an important contribution to closer relationship and fewer limits. I wish you all good luck!

Anne-Grete Strøm-Erichsen

# THE 13TH EUROPEAN UNION CONTEST FOR YOUNG SCIENTISTS

*The European Union (EU) Contest for Young Scientists is an initiative of the European Commission and is a part of the EU's Improving Human Potential programme. It is currently managed by the Unit "Public Awareness of Science – Young People and Science", which is part of the Science and Society Directorate of the Directorate General for Research.*

The EU Contest was set up to promote the ideals of cooperation and interchange between young scientists. It provides an annual showcase of the best of European student scientific achievement and such attracts widespread media interest.

## The Opportunities

The EU Contest gives science students the opportunity to compete with the best of their contemporaries at the European level. The young scientists also have the chance to meet others with similar abilities and interests, and to be guided by some of the most prominent scientists in Europe. In this way, the Commission seeks to strengthen the efforts made in each participating country to attract young people to careers in science and technology.

## The Venues

The 1st EU Contest Finals took place in Brussels in 1989. Since then, the event has been hosted in Copenhagen, Zürich, Seville, Berlin, Luxembourg, Newcastle upon Tyne, Helsinki, Milan, Porto, Thessaloniki, Amsterdam, and this year the 13th EU Contest takes place in Bergen, Norway.

## The Contestants

All the contestants who take part in the EU Contest are prize winners in their own right. Each young scientist wins the right to enter the Contest by having won a top prize in his or her national young scientist competition. They join either as individuals or as part of a team project and represent their country. The EU Contest is the ultimate goal for more than **30,000 young scientists aged 15-20 years old who compete annually in their national contests.**

## The Prizes

At the 13th Contest in Bergen, Norway, 93 contestants drawn from over 30 European countries will compete for the following project prizes:

- **Three first prizes worth •5000**
- **Three second prizes worth •3000**
- **Three third prizes worth •1500**

## Honorary Awards

At the discretion of the Jury, prize winners can also be invited to represent the EU Contest at:

- **The Stockholm International Youth Science Seminar:** where they will attend the 2001 Nobel Prize ceremonies, meet the Nobel Laureates and take part in a series of other scientific/cultural activities during the week.
- **The London International Youth Science Forum:** where they will meet young scientists from around the world and take part in the annual two-week intensive summer science festival.

## Special Awards

The Jury can also select deserving prize winners to join distinguished research scientists and engineers to work on projects organized by:

- **The European Northern Observatories, IAC, The Canary Islands.**
- **The European Space Research and Technology Centre, Noordwijk, The Netherlands.**
- **The European Patent Office, Munich, Germany.**
- **The Norwegian Polar Institute, Ny-Ålesund Large Scale Facility, Svalbard, Norway**
- **The Doñana Biological Station, Huelva, Spain.**

## The Host Country's Prize

The jury for the first time in Bergen will have the opportunity to nominate prize winners to take part in a field placement organized by the host country:

- **Space Camp Andøya, Norway:** A European summer camp where the participants get full access to the facilities at Andøya Rocket Range preparing a final rocket launch.

## The Future

The Contest each year takes place in September in a different European country.

In 2002, the 14th EU Contest for Young Scientists will be held in Vienna, Austria.

The 15th EU Contest will take place in Hungary.



*Håkonshallen - the site for the 13th European Union Contest Prize Awards.*

## THE EU CONTEST FOR YOUNG SCIENTISTS

**Following the National Contests, which are held across Europe each year from October to May, the EU Contest takes place in four stages:**

Winners of the National Contests are selected to represent their country at the EU Contest. (The National Organizers of the National Contests that are held across Europe submit proposals -see below.) Currently, more than 30 European countries and the *European Schools* take part;

The EU Contest Jury receives during June copies of the written projects. They make their preliminary assessments. For those projects, which lie outside their scientific domain, Members of the Jury consult other experts in the relevant field;

The EU Contest takes place each year in September. This involves:

- The Science Exhibition. All contestants display their projects on stands in the exhibition hall, where Members of the Jury conduct discussions and interviews with the contestants;
- The Award Ceremony, Press Conference, and official Reception.

Selected Contest Winners represent the European Union at other international science events in Sweden, the United Kingdom, and attend field placements in Germany, the Netherlands, Norway and Spain.

### The Projects

The EU Contest for Young Scientists accepts project entries in all fields of scientific endeavour. Each project is evaluated on the basis of a written project, and a project that is displayed in public exhibition.

### The National Organizers

National Organizers run the national young scientist contests in each country. After their national contest final has taken place, they notify the European Commission about the prize winning projects and supply the names of their prize winners that they wish to enter EU Contest. The list of National Organizers is given at the end of the EU Contest catalogue.

### The Participating Countries

1. The 15 Member States of the European Union: Austria, Belgium, Denmark, Germany, Greece, Fin-

land, France, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom.

2. The countries associated to the 5th Framework Programme and others under special arrangements: Belarus, Bulgaria, the Czech Republic, Estonia, Georgia, Hungary, Iceland, Israel, Norway, Latvia, Lithuania, Malta, Poland, Russia, Slovenia, Slovakia, Switzerland, Turkey, and Ukraine.

3. Further special guest scientists come from:

- Japan
- Republic of Korea
- South America
- United States of America

These four international participants exhibit their projects as the winners of, respectively, the Japan's Yomiuri Shimbun Young Scientist Contest, the Republic of Korea's National Contest for Students' Scientific Invention, the USA's INTEL/ISEF International Science and Engineering Fair, and the South America Young Scientists Contest.

## ACKNOWLEDGEMENTS

Coordinating the EU Contest in a different country every year is always challenging task. But there are always a host of supporters with good ideas and inputs that help to strengthen the EU Contest as it continues to develop to serve Europe's young scientist community.

It is unfair to single out individuals from among the large number of people who have assisted, but the European Commission would like to thank in particular Dr. Pamela Moskowitz of the European Patent Office, Dr. Helge Drange of the Nansen Environmental and Remote Sensing Centre, ESA Astronaut, Professor Wubbo Ockels of the European Space Agency, Professor Fernando Moreno-Insertis and Ms.

Monica Murphy of the Instituto de Astrofísica de Canarias, Dr. Louise Jagger of ESA's European Space Research and Technology Centre, Mr. George McGowan of the London International Youth Science Forum, Mattias Löfgren of the Stockholm International Youth Science Seminar, Professor Pauline Slosse and her fellow jury members of the EU Contest and, of course, Mr. Anders Grønli and his team at the Norwegian Foundation for Youth and Science for all their work and dedication over the last months.

In Norway we would also like to convey our sincere thanks to Special Advisors Liv Mellum and Trygve Lande at the Research Council of Norway as well as Deputy Director General Karen Nossun

Bie and Adviser Elisabeth Authen at the Royal Norwegian Ministry of Education, Research and Church Affairs. We are also grateful for the assistance of Professor emeritus Arnfinn Graue and Dr. Astrid J. Bårdgard at the University of Bergen, Ms. Ruth Grung at Hordaland County Administration and Ms. Solveig Holm at the Offices of the City of Bergen.

The Commission would also wish to record its grateful thanks to Nobel Laureates Giaever, Kroto, Mottelson, Skou and t'Hoof. It is most appreciated that the people at the very zenith of scientific achievement have seen fit to give the Contest and its contestants their valuable time and encouragement.