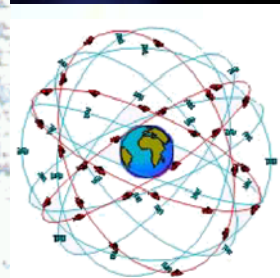
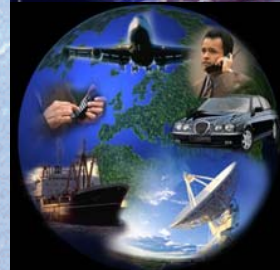




Italian Space Agency

Space education and training activities

Germana Galoforo
ASI External Relations



ASI Education and Training

- Mission
- Guidelines
- Objectives
- Projects
- Events
- Main returns
- International cooperation

Target

1. To spread aerospace culture and the knowledge coming from its research
2. Training and growth of the Italian researchers

Projects

- a. Divuligation of Aerospace culture (1)
 - a.1 Web channel
 - a.2 Didactic balloon flight
 - a.3 Multimedia laboratory
 - a.4 Didactic satellite launch
 - a.5 Parabolic flight for students
- b. High technological-scientific education (2)

Main characteristic products

- Web channel subjects (a.1)
- Payload for balloon flight made by the schools (a.1)
- Didactic satellite made by the schools (a.2)
- Payload for parabolic flight made by the schools (a.4)
- Multimedia laboratory products (a.5)
- Scholarship/ research allowance plan (b)
- Research Doctorate plan (b)

MAIN RETURNS

Strategic

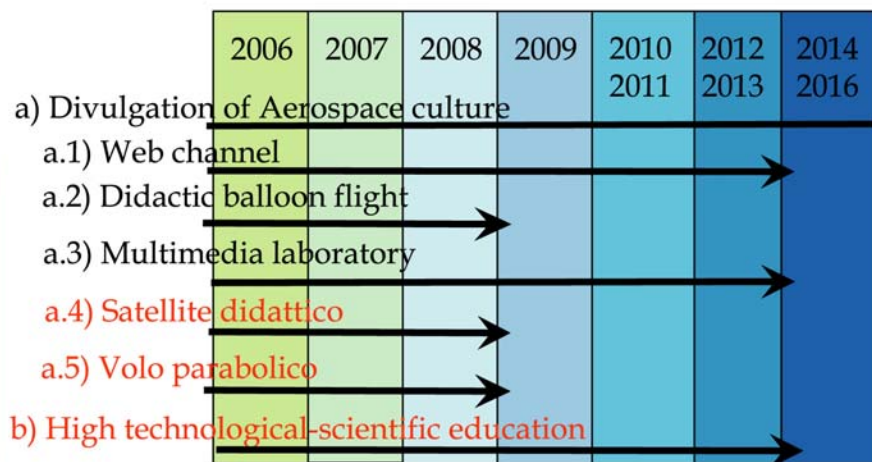
A good image for ASI and for the Space

Highly specialized training

Social

Youth education specialization in the scientific and technological aerospace and space fields and their applications

Orientation of the youth towards scientific studies and social returns (vocation promotion)



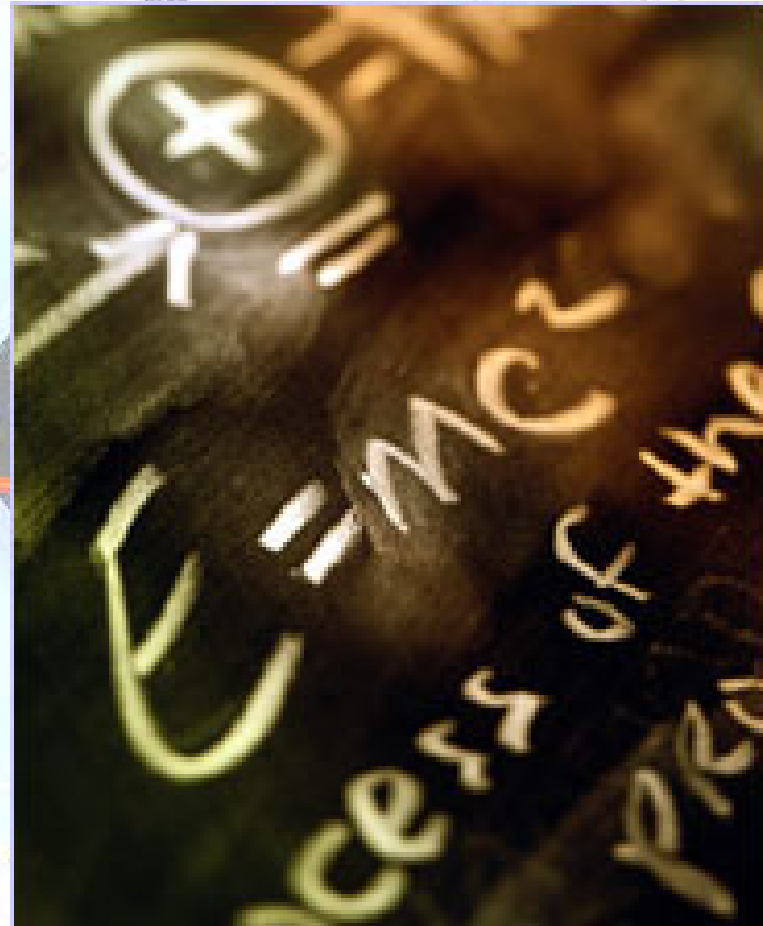


The Italian Space Agency

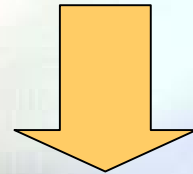
“promotes the education and the professional growth in the field of aerospace science and technologies”

Guidelines

- to spread aerospace culture and knowledge gained from relative research in families and schools
- to favour the training and growth of Italian researchers



- Lack of knowledge regarding aerospace activities
- Need to promote education & training programmes for teachers and students

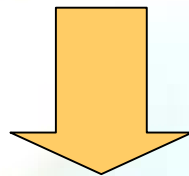


- To popularize aerospace education with schools
- To promote the interest of young people in scientific and technical subjects
- To incentive the use of high-tech and satellite technology
- To steer students into scientific and technical studies and careers



Training activities Objectives

- Decrease of university students majoring in science



- To further professional and technical growth
- To encourage students to major in science subject areas
- To support students, newly graduates and young researchers, improving their skills
- To promote employment opportunities in the field of space science and technologies, and their applications

Education projects

- **Aerospace Web Channel**
- **Parabolic flight**
- **Stratospheric balloon flight**
- **Educational aerospace videogame**

The Aerospace Web Channel (1)

The "Aerospace Web Channel" (AWC) is:

- ASI's education main program
- a new way of studying scientific subjects
- based on innovative technologies (computers and satellite TV)
- a more direct connection between school and aerospace researchers

AWC intends to transmit through Internet or satellite educational modules and/or events of particular impact

The background of the slide is a light blue gradient with a central image of the Earth. Several satellite orbits are depicted as curved lines in various colors (yellow, green, red, blue) around the globe. Multiple satellite models are shown at different points along these orbits. The satellites have rectangular bodies with various colored panels and antennas.

The AWC was experimented in 2004 with 50 high schools

The second AWC edition will start in 2007 and will involve nearly 500 high schools

The AWC Portal

The AWC portal is called "Spazio alle Scuole", which means "Space to Schools" (www.spazioallescienze.it)



- News ➤
- Biblioteca ➤
- Lezioni ➤
- Premi ➤
- Galleria ➤
- Giochi ➤
- Login ➤

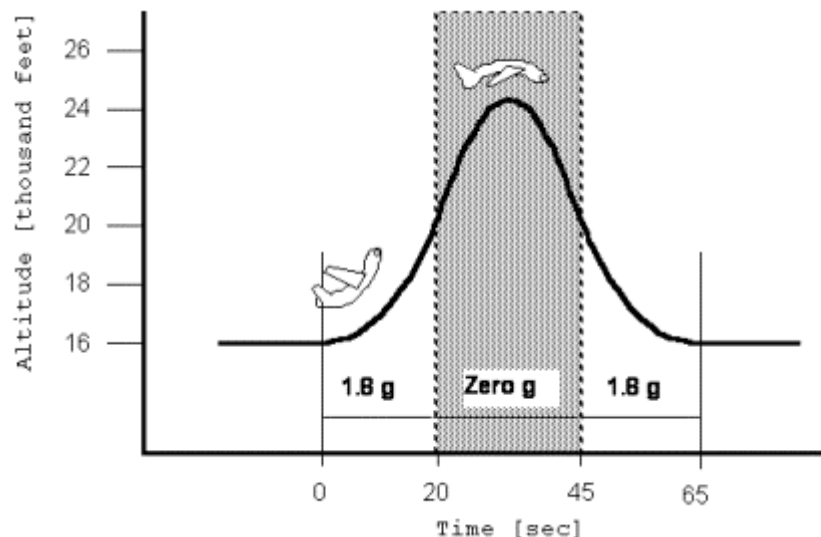
Stratospheric balloon flight

In June 2005, one of the winning experiments designed by the AWC participating schools flew on a stratospheric balloon from the ASI Space Centre in Trapani



Parabolic flight

Another winning experiment of the "call for ideas" announced in the AWC relative to microgravity experiments, will fly on parabolic flights during the ESA campaigns focused to students



Educational aerospace videogame

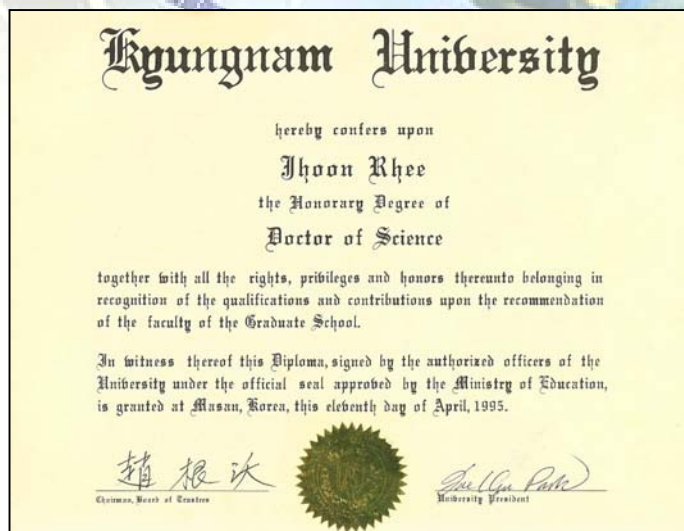
The second AWC edition foresees the development of a educational aerospace videogame.

The play propose basic physics concepts, in a recreational and fascinating way
(*Edutainment*)



Training projects

- **Doctorates** for graduates and **post-doctorate scholarships** for young researchers on space subjects
- **Internships** for university students and newly graduates at the ASI offices and centres



Education events

Every year ASI supports and takes part in education events, organized by the Italian Ministry of University and Research for schools and families:

- "National Astronomy Week"
- "Scientific & Technology Education Week"



Education and training main returns

- **Strategic**

- ✓ A goodwill for Space topics
- ✓ Highly specialized space training

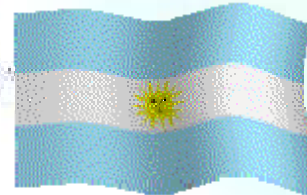
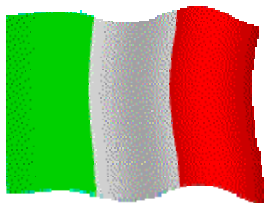
- **Social**

- ✓ Youth education specialization in the scientific and technological aerospace and space field and their applications
- ✓ Orientation of the youth towards scientific studies

Education and training are a main tool of international cooperation.

Italy is engaged in several space education and training initiatives with international partners:

- USA
- Argentina
- Kenya



Cooperation ASI- NASA through the Italian Aerospace Web Channel:

- Exchange of materials to be used for the AWC
- Joint development of interactive applications and games to "teach" aerospace to students
- Link between the selected Italian secondary schools and the American ones for:
 - ✓ Exchange of students and teachers
 - ✓ Development of common "training" projects

Mario Gulich Institute of Advanced Space Studies (ASI - CONAE):

- Earth Observation workshops
- Space application courses oriented to different users
- High level education fellowships, provided by the Italian Government in the field of natural disaster prediction and risk management



Inter-governmental Agreement Italy- Kenya ("Broglgio Space Centre" - Malindi):

- Technical education
- Professional training

The background of the slide is a light blue gradient with a faint, stylized illustration of the Earth in the center. Several satellite-like objects with solar panels are depicted in various orbits around the Earth, connected by thin, curved lines representing orbital paths. The overall theme is space exploration and technology.

According to the First Resolution of
*"The Space Millennium: Vienna
Declaration on Space and Human
Development"*,
great efforts have been made by Italy
on enhancement of
education and training opportunities.
And this is also its plan for the future



A large, stylized illustration of a satellite constellation. Numerous satellites are shown in various orbits around a central Earth. The satellites are depicted with solar panels and antennas. The background is a light blue gradient with faint orbital lines. The text "Thank you !" is superimposed in the center.

Thank you !



Germana Galoforo
germana.galoforo@asi.it

Education Office
formazione.esterna@asi.it

Giuseppina Pulcrano - Project Manager
giuseppina.pulcrano@asi.it

Valeria Guarnieri
valeria.guarnieri@asi.it

ASI - Italian Space Agency
Viale di Villa Grazioli, 23
I-00198 Rome - Italy