

# **CERN**

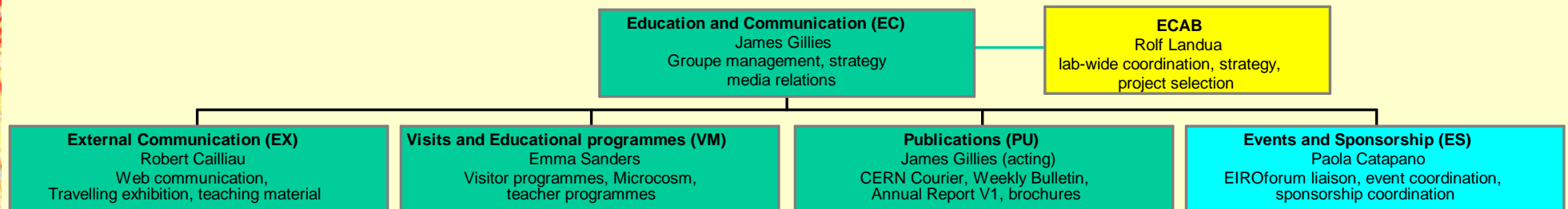
## **Education and Communication**

### **(ETT/EC)**

**James Gillies**  
**15 April 2003**

# Education and Communication

## The Education and Communication group

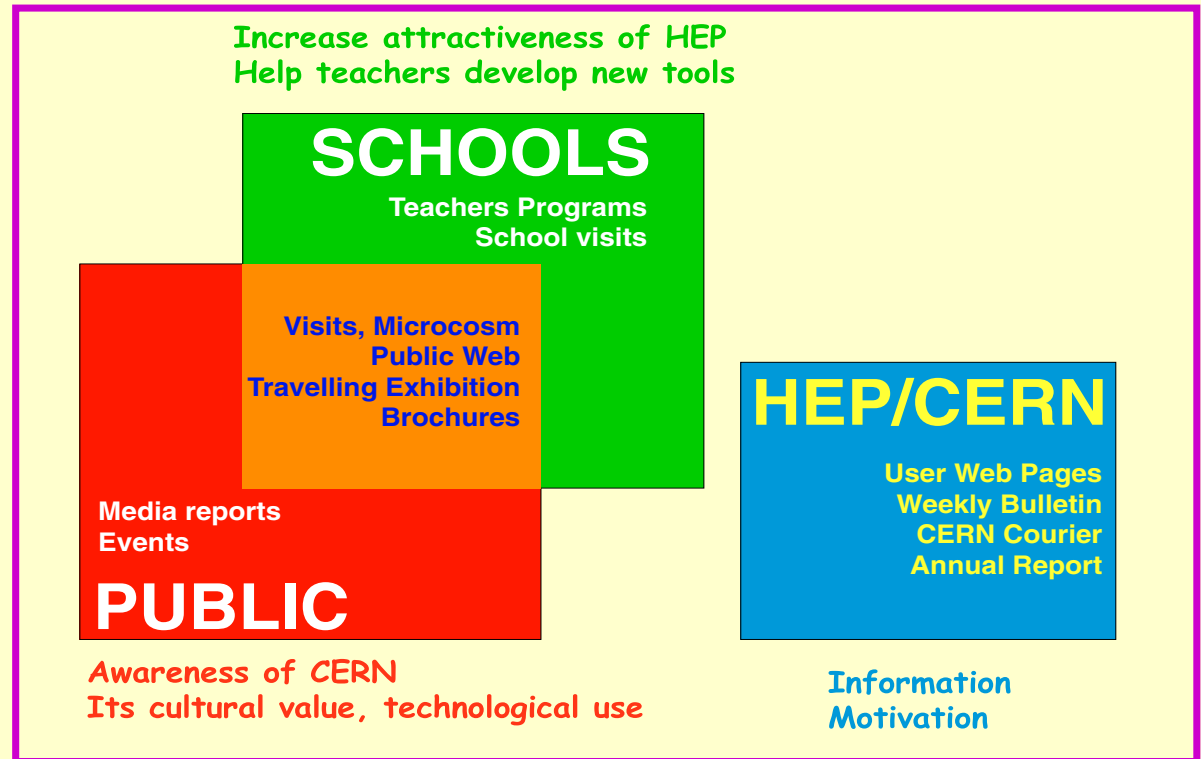


# Education and Communication

**General Public:** Increase the level of awareness of CERN, its cultural value and the usefulness of its technology

**Schools:** Help teachers to create interest for science and particle physics

**HEP:** Inform and motivate CERN staff and users



**ETT/EC**

# General Public

## Press Office

300-400 journalists/yr.

Press, radio, TV, Interviews - Documentaries  
<http://info.web.cern.ch/info/Press/>



## Travelling Exhibition

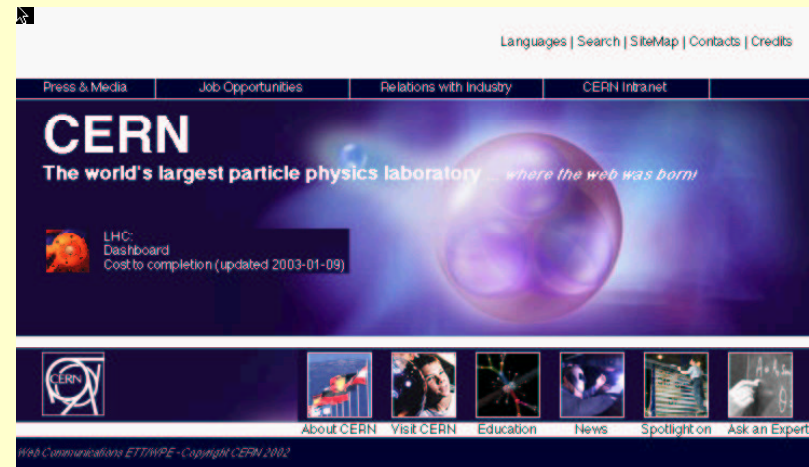
150,000 visitors / yr.

2-3 venues per year in European cities  
Off the road in 2003 for refurbishment

## Public Web Pages

200,000 visitors / yr.

Guided CERN Tour for non-scientists, Kids pages,  
Educational resources for teachers  
<http://www.cern.ch>





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# General Public - Visitors

## Guided Tours

20,000 visitors/yr.

Reception + Organization of Visits + Guides  
<http://public.web.cern.ch/public/visit/visit.html>



## Microcosm

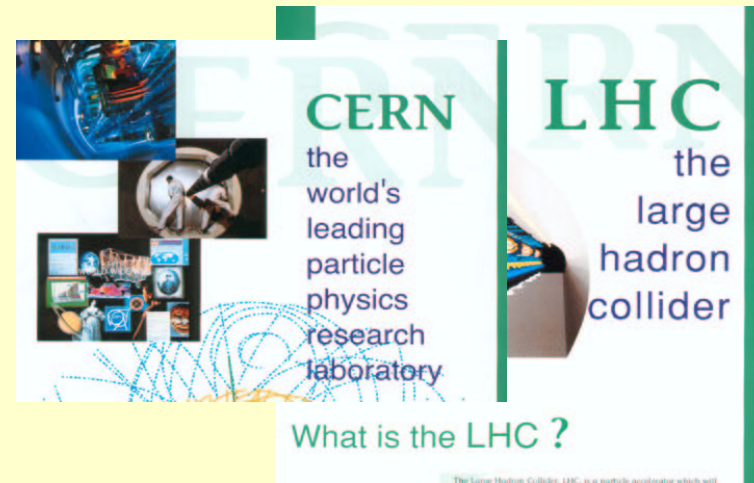
30,000 visitors / yr.

Permanent exhibition on CERN's research and technology

## Brochures

100,000 copies / yr.

General information on CERN,  
LHC machine, Experiments, Applications,  
Safety  
New series coming, starting this year



# Events + Young Public

ETT/EC

## Special educational events

Enhancing the attraction of basic science, in collaboration with ESA, ESO, ESRF...



Physics Teaching Fair



2002

## Web-Casting "Live from CERN"



(Sponsored by European Union, 400 kCHF in 2002)

# Teacher programmes



Immerse teachers in CERN and high energy physics  
 Collaborate in developing new techniques for teaching  
<http://visitservice.web.cern.ch/VisitsService/education/>



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# HEP Community and CERN staff

## Weekly Bulletin

6500 copies/ week

<http://bulletin.cern.ch/>



## CERN Intranet

6 million visitors/year

<http://www.cern.ch/>

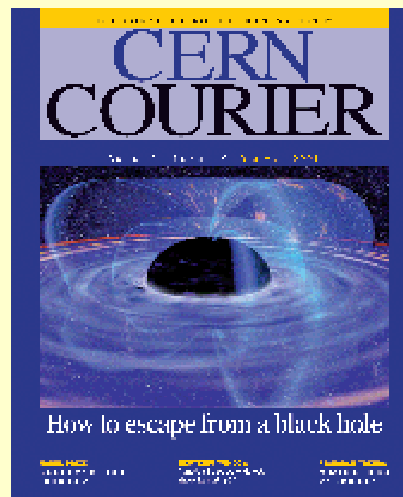


## Annual Report



Yearly progress report  
<http://publications.cern.ch/>

## CERN Courier



“The” journal of High Energy Physics  
25,000 copies, 10 issues/year  
World-wide distribution  
<http://www.cerncourier.com>



# New events...

**→ les lundis découverte**

MICROCOSM

→ le musée interactif du CERN

**Bienvenue,  
chaque 1<sup>er</sup> lundi du mois  
aux lundis découverte  
(à partir du 5 mai 2003)**

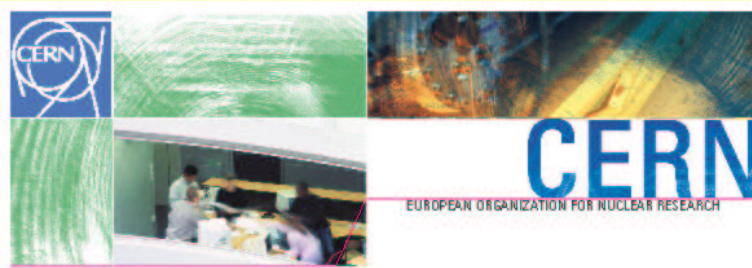
Mettez la main à la pâte, écoutez, expérimentez, discutez, échangez, et vous découvrirez les sciences et les technologies qui se font au CERN. Nul besoin d'être spécialiste - chaque mois, une facette différente du CERN vous sera dévoilée dans une ambiance décontractée.

Age conseillé, dès 12 ans  
Entrée libre et gratuite, sans réservation  
Dès 19h30 et jusqu'à 21h00

**Microcosm**  
CERN, CH-1211 Genève, Suisse  
Bâtiment 33 (réception), Entrée A  
Tél: +41 (0)22 767 8484  
Fax: +41 (0)22 767 8710  
visits.service@cern.ch

<p>→ Le plus grand frigo du monde : les solénoïdes du LHC</p> <p style="text-align: center;">lundi 5 mai</p>	<p>→ Les matériaux à la loupe de l'ultrason et de microscope électronique</p> <p style="text-align: center;">lundi 2 juin</p>
<p>→ L'astronomie à petite échelle : les premiers instants de l'univers</p> <p style="text-align: center;">lundi 7 juillet</p>	<p>→ Bonnes vacances et rendez-vous à la rentrée</p> <p style="text-align: center;">août</p>
<p>→ Des cristaux pour la médecine : lourds comme le plomb, transparents comme le verre</p> <p style="text-align: center;">lundi 1<sup>er</sup> septembre</p>	<p>→ L'alignement parfait : la beauté des géométries</p> <p style="text-align: center;">lundi 6 octobre</p>
<p>→ Le web du futur : un ordinateur à l'échelle de la planète</p> <p style="text-align: center;">lundi 3 novembre</p>	<p>→ La puce à l'oreille : l'électronique à l'écoute des bruits de la matière</p> <p style="text-align: center;">lundi 1<sup>er</sup> décembre</p>

<http://www.cern.ch/microcosm/>



**CERN**  
EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

**General information 2003**

> **Member States and their normalized contributions (%)**

Austria	2.10	Finland	1.35	Italy	12.51	Slovak Republic	0.25
Belgium	2.55	France	15.69	Netherlands	4.45	Spain	7.17
Bulgaria	0.15	Germany	20.71	Norway	2.40	Sweden	2.33
Czech Republic	0.77	Greece	1.18	Poland	1.95	Switzerland	3.57
Denmark	1.74	Hungary	0.74	Portugal	1.13	United Kingdom	16.89

> **Observers:** European Commission, India, Israel, Japan, Russian Federation, Turkey, UNESCO, USA.

> **President of Council:** M. Bourquin (Switzerland)

> **Chairman of the Scientific Policy Committee:** J. Feltesse (France)

> **Chairman of the Scientific Policy Committee:** B. Sode Mogensen (Denmark)

**Internal structure**

> **Management**

Director-General  
 Research Director for Collider Programmes  
 Research Director for Fixed Target & Future Programmes  
 Director of the Large Hadron Collider Project  
 Director for Technology Transfer & for Scientific Computing  
 Technical Director  
 Director of Finance  
 Director of Administration  
 Director of Accelerators

Head of Directorate Services Unit  
 Member State Relations  
 Non-Member State Relations  
 Host State Relations  
 Council Secretariat  
 Legal Adviser  
 Environmental Adviser  
 Strategic Planning Unit  
 CERN Programme Controller  
 Press Office  
 VIP office

L. Maiani  
 R. Cashmore  
 C. Détraz  
 L. Evans  
 H. F. Hoffmann  
 J. Joly  
 A. J. Naudi  
 J. van der Boon  
 C. Wyss

J.-D. Mando  
 C. Jastrzeg  
 J. Ellis – N. Kaulberg – D. Blichzschmidt  
 F. Eder  
 B. Besuzerky  
 E. Gröniger-Voss  
 C. Roche  
 G. Lindacker  
 D. Plane  
 J. Gillies  
 W. Koets

> **Divisions**

Theory (TH)	G. Altarelli	Finance (FI)	A. J. Naudi
Engineering Support and Technologies (EST)	P. Criani	Education and Technology Transfer (ETT)	J.-A. Rubio
Administrative Support (AS)	J. Ferguson	Technical Support (ST)	A. Sossimelli
Human Resources (HR)	V. Hatton	Particle Physics Experiments (EP)	W.D. Schlatter
	W. Zapf	Information Technology (IT)	W. Von Riden
Supplies, Procurement and Logistics (SPL)	T. Lagrange	Technical Inspection & Safety (TIS)	W. Weingarten
Accelerator Technology (AT)	Ph. Lebun		
Accelerator Beams (AB)	S. Myers		

Staff Association  
 Pension Fund

J.-P. Martheys  
 C. Cuenoud



**CERN** European Organization for Nuclear Research

**Seeking** answers to questions about the Universe  
 What is it made of?  
 How did it come to be the way it is?

**Uniting** 7000 scientists from more than 80 countries.  
 CERN is a laboratory for the world

**Advancing** the frontiers of technology and engineering

**Nurturing** the young scientists and engineers who will be the experts of tomorrow

CERN, the European Organization for Nuclear Research, was founded in 1954. It has become a prime example of international collaboration, with currently 20 Member States. It's the biggest particle physics laboratory in the world, and sits astride the France-Swiss border close to Geneva.

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# New itineraries...

**Recreating the conditions just after the Big Bang**  
**Recréer les conditions des débuts de l'univers**

→ to understand why the universe is like it is today  
 → pour comprendre ce qu'il est devenu

**ATLAS**

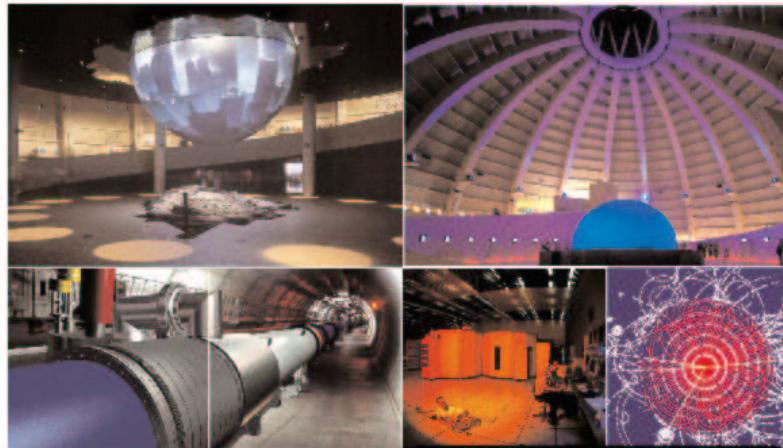
**Stripping detector**  
 The ATLAS stripping detector is made of silicon strips. It is used to track the path of particles as they pass through the detector. The strips are arranged in a grid pattern, and the particles leave a trail of ionization as they pass through them.

**Magnet**  
 A system of superconducting magnets is used to bend the paths of particles. This is necessary to measure the momentum of the particles. The magnets are arranged in a series of dipoles and quadrupoles.

**Calorimeter**  
 The calorimeter is used to measure the energy of particles. It is made of layers of alternating absorber and active materials. As a particle passes through, it creates a shower of secondary particles, which are then detected by the active layers.

**Muon spectrometer**  
 The muon spectrometer is used to identify muons. It consists of several layers of tracking detectors and muon chambers. Muons are the only particles that can penetrate all the other layers of the detector.

# New sources of income...



Join... the **CERN Globe of Innovation**

CERN, the European Organization for Nuclear Research, would like to share a unique opportunity with partners in industry, commerce and the public sector. Take part in developing a stunning landmark next to the laboratory, dedicated to the multifaceted nature of fundamental research and human innovation, by sponsoring the CERN Globe of Innovation.

CERN is building the Large Hadron Collider (LHC), a particle accelerator 27 km around. Installed in a tunnel 100 metres underground, the LHC will collide protons head-on 800 million times a second.

CERN's mission is pure science, but the tools it uses have many applications. Particle accelerators are widely used in industry and medicine, while the detectors that analyse particle collisions have been adapted for use in medical imaging and security scanning.

Perhaps the best-known CERN spin-off is the World Wide Web, invented at the laboratory in 1989 in response to scientists' growing communication needs.

Technological innovation at CERN relies on close collaboration with industry, and CERN aims to further strengthen this partnership through the CERN Globe of Innovation - a meeting place for the laboratory's partners in industry, commerce and the public sector. We are looking for like-minded organizations to sponsor the creation of a landmark dedicated to innovation and the technologies needed at the cutting edge of research - the technologies of tomorrow.

The future control centre for CERN's accelerators and a large executive board meeting room will be built next to the Globe.

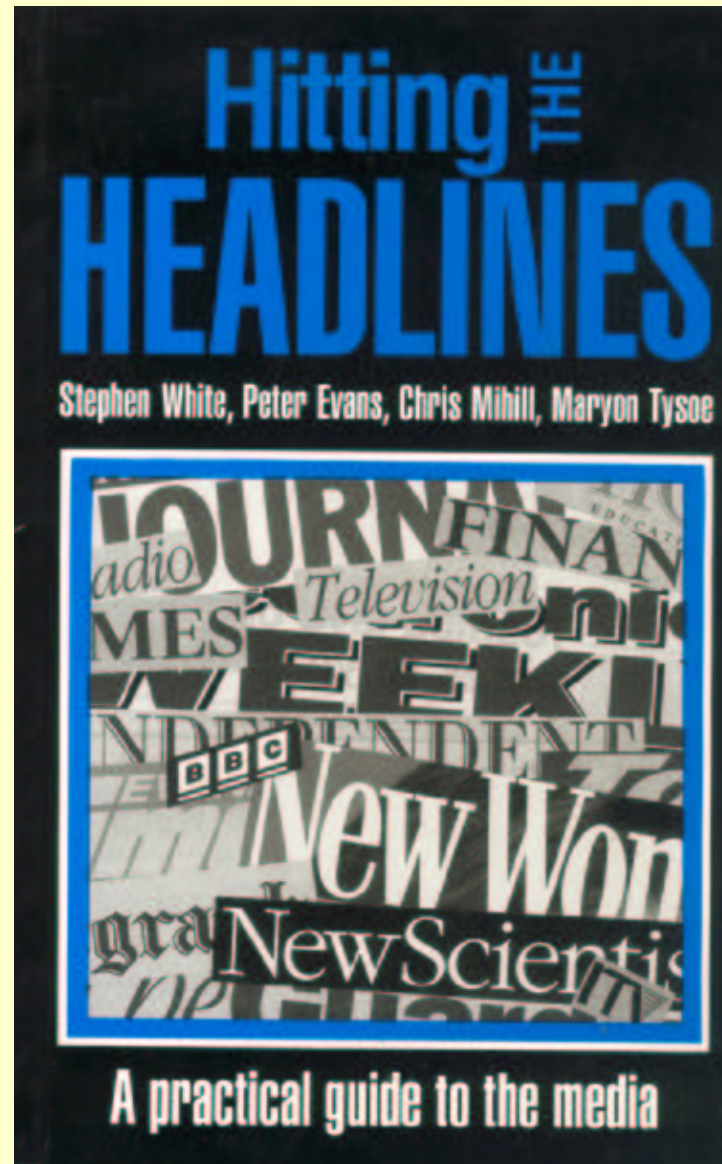
Join the world's leading knowledge centre, and help us to push back the frontiers of science and technology.





ETT/EC

## New training...



# New collaboration...

**INTERACTIONS**

**INTERACTIONS.ORG**  
PARTICLE PHYSICS NEWS AND RESOURCES

- News
- Image Bank
- Links / Contacts
- Policy and Funding
- Publications
- Conference Calendar
- Glossary
- Education
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**News**

4/3/03 CERN: [IBM joins CERN openlab for DataGrid applications](#)

4/3/03 Physics Today: [Dark Energy: Just What Theorists Ordered](#)

4/2/03 ESRF: ["Physics and Life" for Europe's Science Teachers](#)

4/2/03 IDS News: [State-of-the-art computing facility now up and running](#)

3/29/03 De Volkskrant: [Rechtdoor naar de Heilige Graal](#)

3/27/03 DESY: [Long-time DESY Guest Scientist honored: Brian Foster awarded with the Max Born Medal and Prize](#)

3/26/03 Scientific American: [Evidence Mounts for Mysterious New Class of Black Holes](#)

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## New opportunities...



- CERN is organising major side event
- Invitation only conference (~350)
- Working closely with UN system press officers
- Huge media opportunity
- <http://www.cern.ch/rsis>

