



# CERN Teacher Programmes

Inspiring the next generation of scientists

Mick Storr

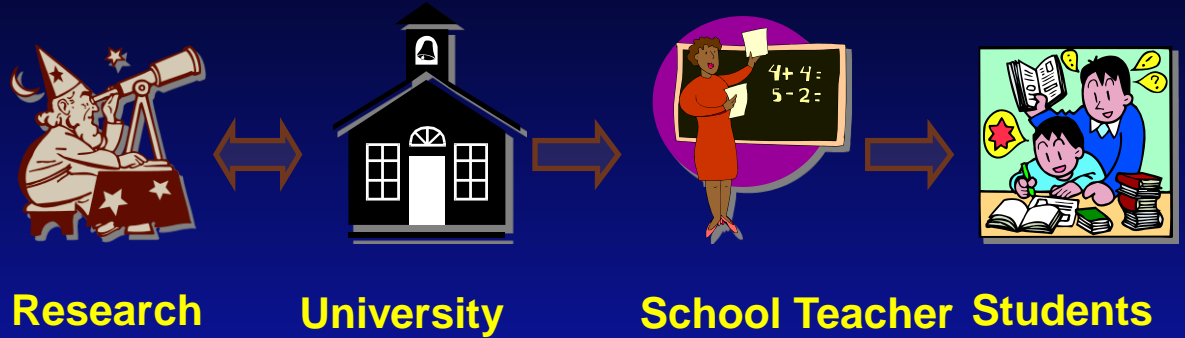
Head CERN Teacher Programmes  
and  
Visits Service



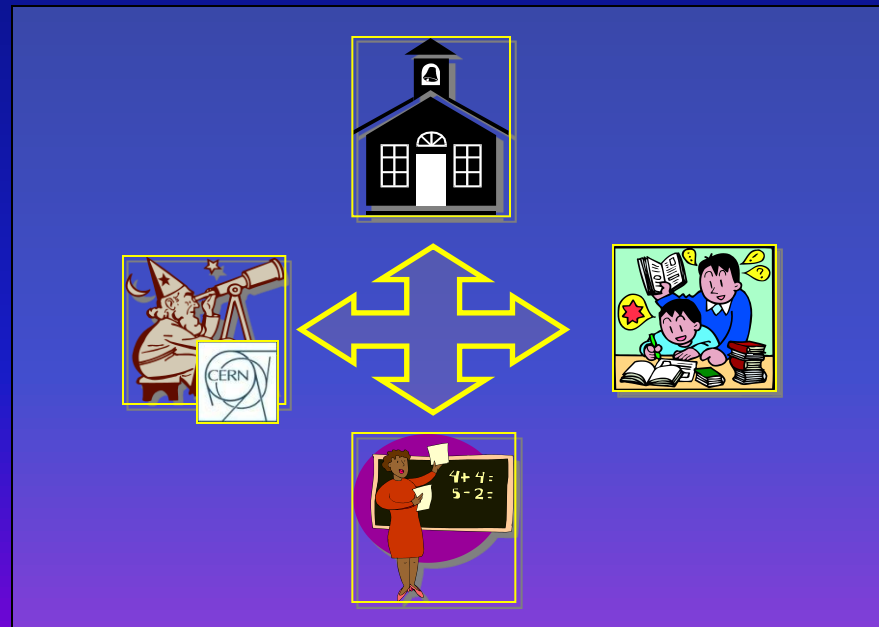
# Objective of Teacher Programmes

## To bring modern research closer to schools

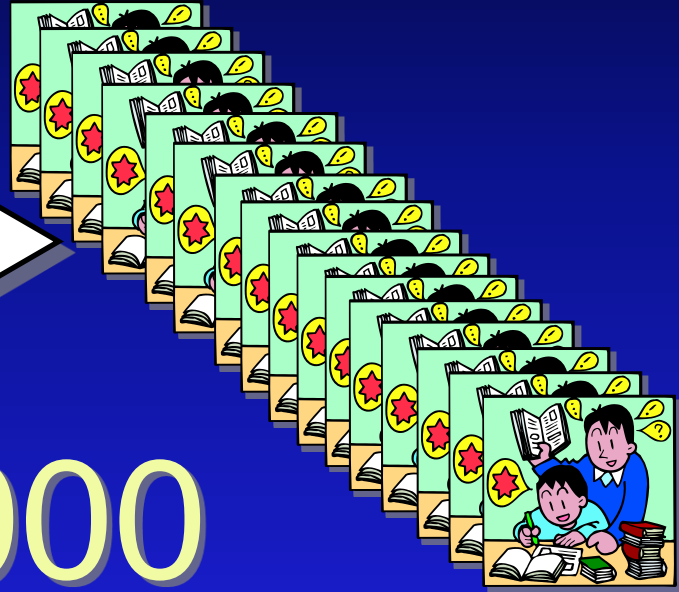
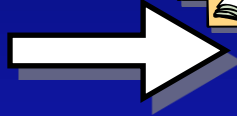
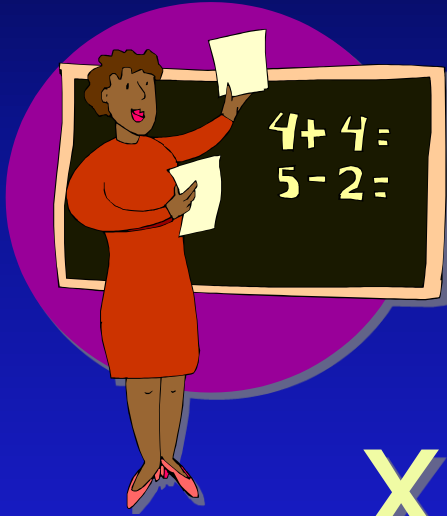
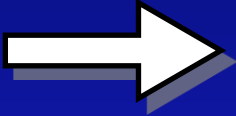
OLD



NEW



# Looking for multiplicative factors



x 1000

School Teacher

School Students



# What are we trying to achieve with the help of physics teachers ?

## 1: RAISE AND MAINTAIN THE INTEREST OF STUDENTS IN MODERN SCIENCE

Motivate them to continue scientific education at school  
Help them to better understand the physical world

### **Improve scientific literacy**

## 2: INSTIL A FEELING OF MYSTERY AND DISCOVERY POTENTIAL

Motivate students to take up physics at universities

### **Prepare the future generation of physicists**

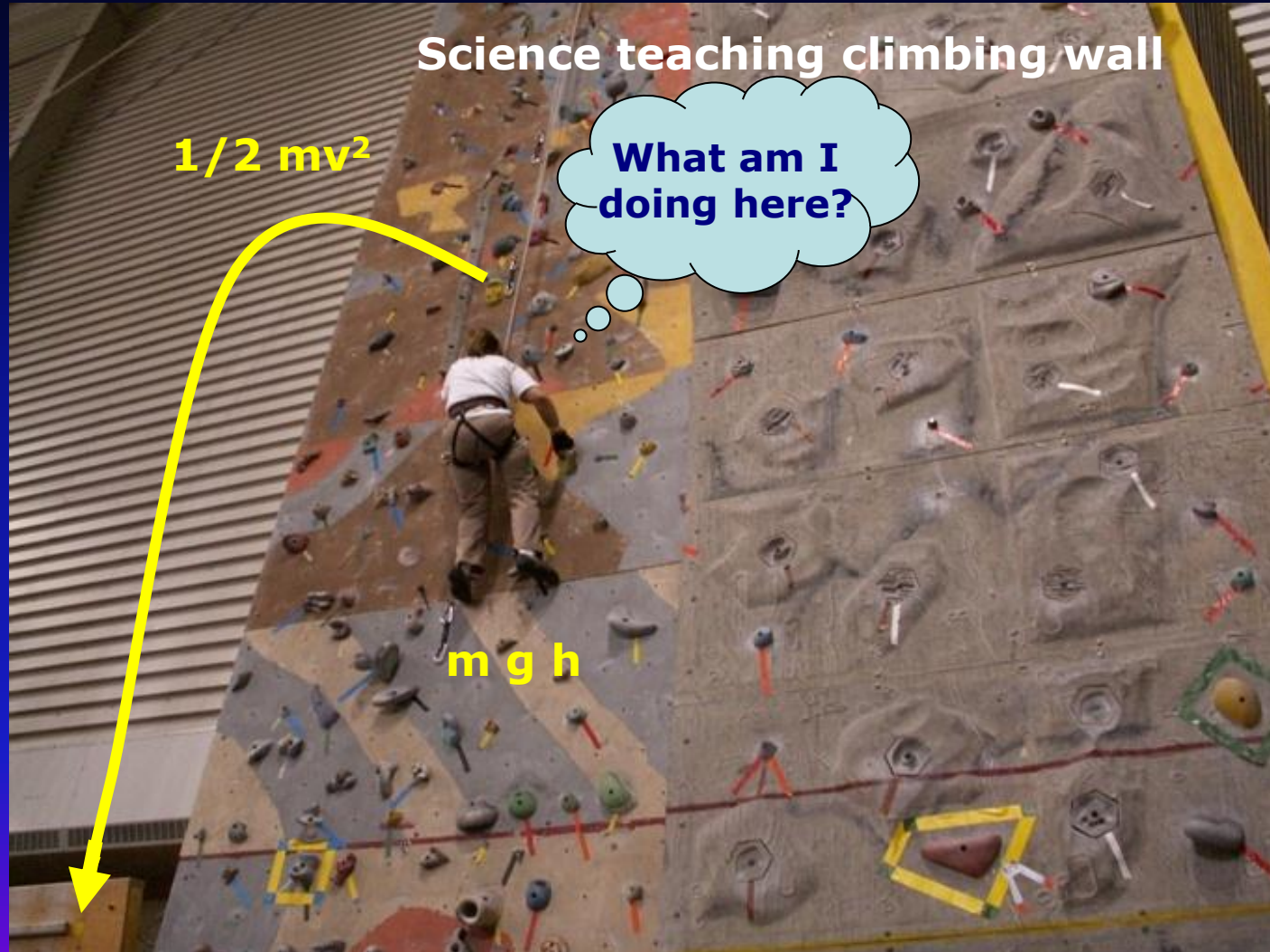
# **SCIENCE IS ALIVE !**



# How researchers view science

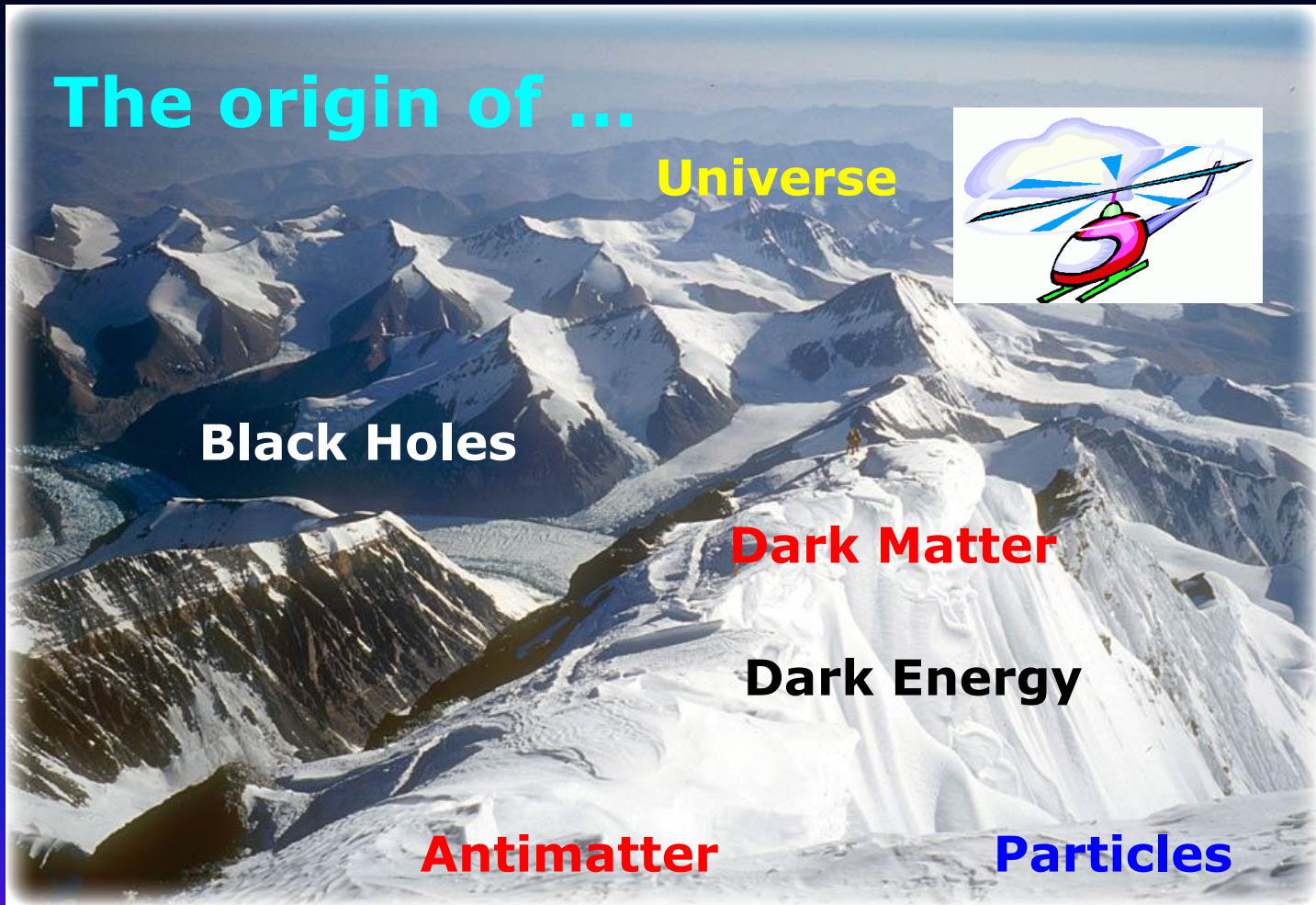


# How school students view science





# Take students on a sight-seeing tour ...



Link modern physics to school curriculum



# Residential Teacher Programmes

## Basic content

- Lectures
  - Introductions to CERN, Particle Physics, Cosmology, the LHC Experiments, Particle Accelerators, Medical Applications of Particle Physics, and the GRID
- Visits to experimental facilities
- Hands-on activities
- Working group activities
- Opportunities to meet working research physicists in a variety of informal settings.

All lectures are web archived and made publicly available



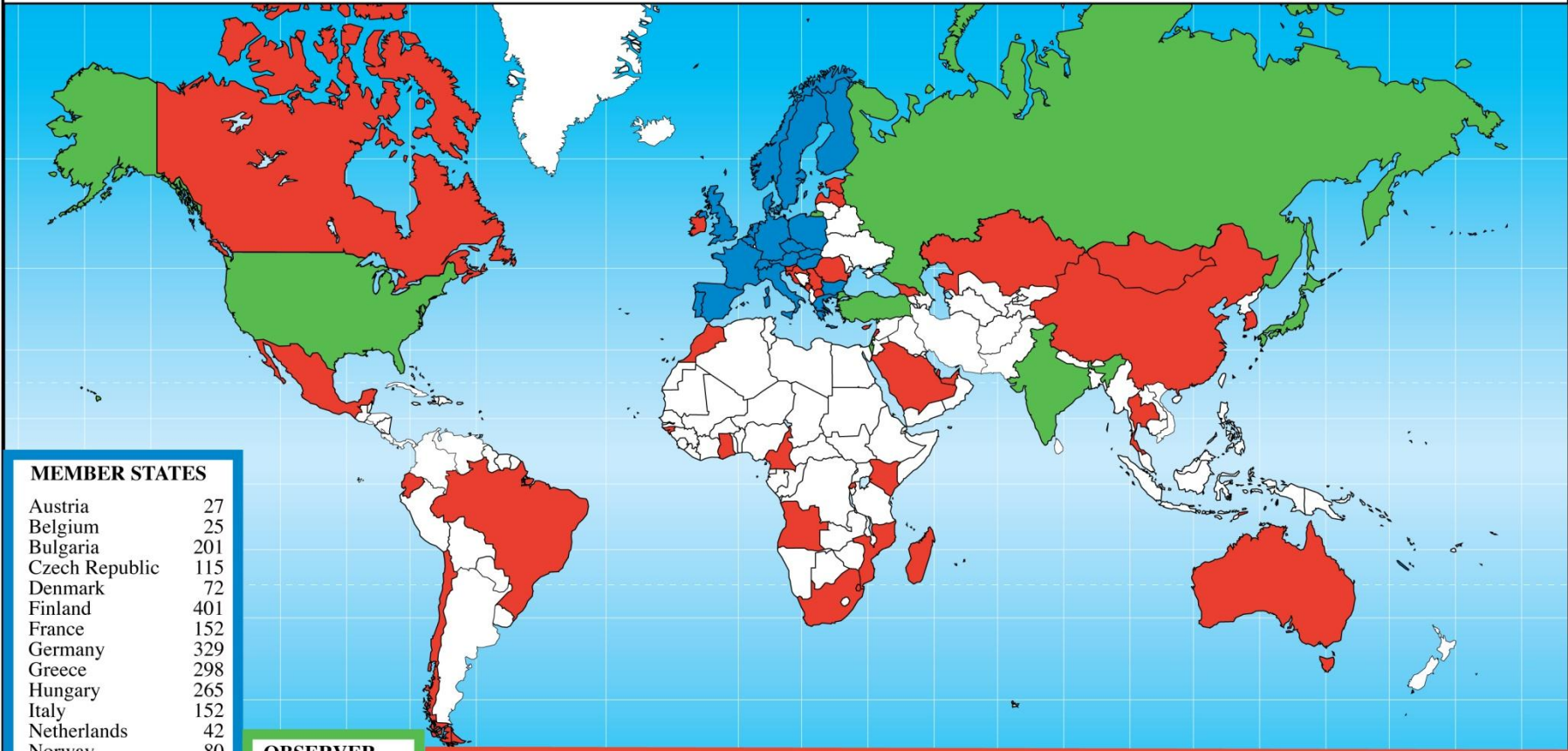


# Outcome

- Newly inspired, motivated and confident teachers
- Inspire and motivate students
- Communicate with their colleagues
- Communicate with the general public
- Act as ambassadors for science, physics, particle physics, CERN

**Excellent examples among  
the many teachers who  
have attended our  
programmes**

# CERN Teacher Programme Participants 1998 - September 2011



## MEMBER STATES

Austria	27
Belgium	25
Bulgaria	201
Czech Republic	115
Denmark	72
Finland	401
France	152
Germany	329
Greece	298
Hungary	265
Italy	152
Netherlands	42
Norway	80
Poland	485
Portugal	255
Slovakia	190
Spain	217
Sweden	79
Switzerland	34
United Kingdom	799

## OBSERVER STATES

India	2
Israel	2
Japan	3
Russia	84
Turkey	3
USA	56

## OTHERS

Angola	4
Australia	3
Azerbaijan	1
Brazil	53
Cameroon	1
Canada	1
Cape Verde	2
Chile	3
China	1
Croatia	1
Cyprus	4
Ecuador	1
Estonia	2
Georgia	16
Ghana	4
Guinea Bissau	1
Ireland	3
Kazakhstan	3
Kenya	2
Latvia	1
Lebanon	1
Madagascar	1
Malta	36
Mexico	5
Mongolia	1
Montenegro	13
Morocco	2
Mozambique	13
Qatar	1
Romania	10
Rwanda	15
Sao Tome	2
Saudi Arabia	1
Serbia	10
Singapore	2
Slovenia	21
South Africa	6
South Korea	22
Swaziland	1
Thailand	4
T.F.Y.R.O.M.	11
Timor-Leste	1
U.A.E.	1

**4218**

**150**

**287**



# Arthur C. Clarke

Author of 2001 : A Space Odyssey

- “When a distinguished but elderly scientist states that something is possible, he is almost certainly right. When he states that something is impossible, he is very probably wrong.” •
- “The only way of discovering the limits of the possible is to venture a little way past them into the impossible.”
- “Any sufficiently advanced technology is indistinguishable from magic.”

**Our goal, with the help of teachers, is to bring a little of the magic of CERN into the classroom**