



# CERN Teacher Programmes

Inspiring the next generation of scientists

Mick Storr

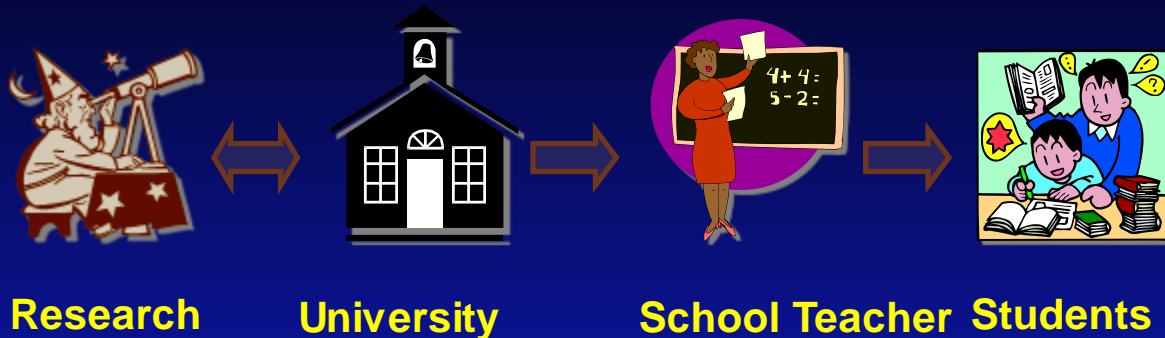
Head CERN Teacher Programmes  
and  
Visits Service



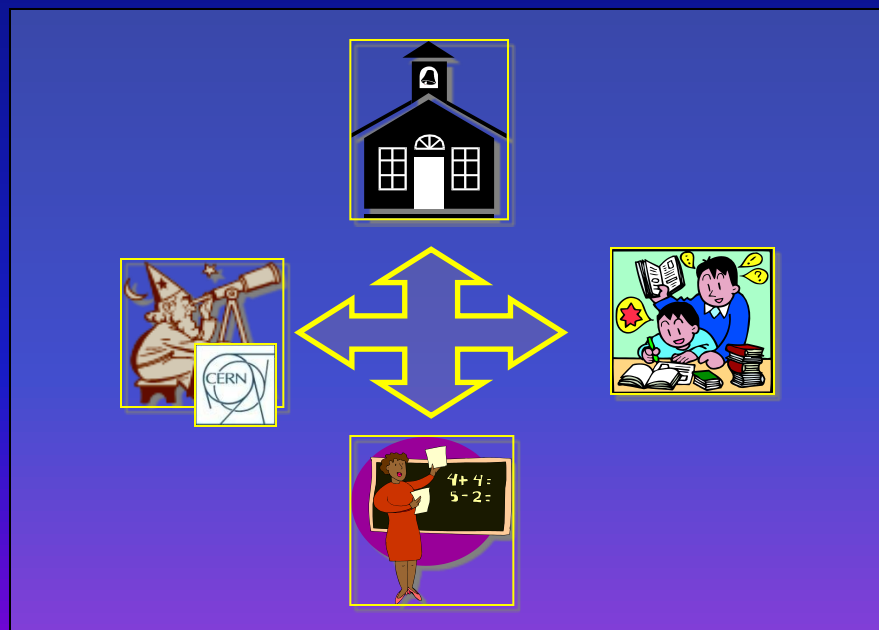
# Objective of Teacher Programmes

To bring modern research closer to schools

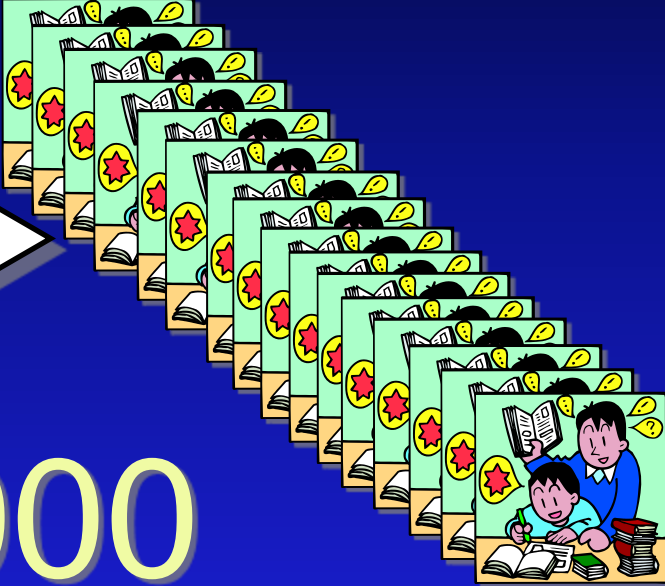
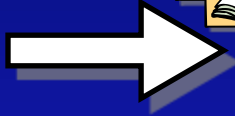
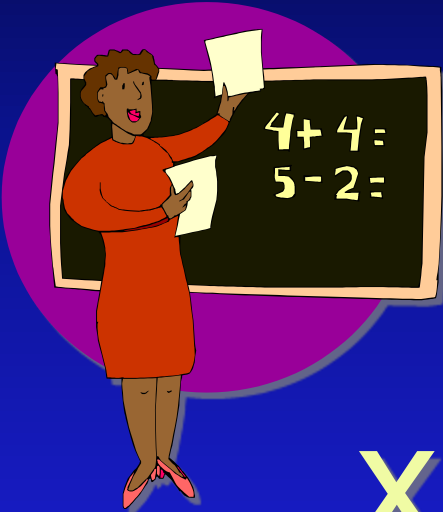
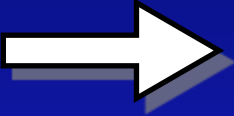
OLD



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**

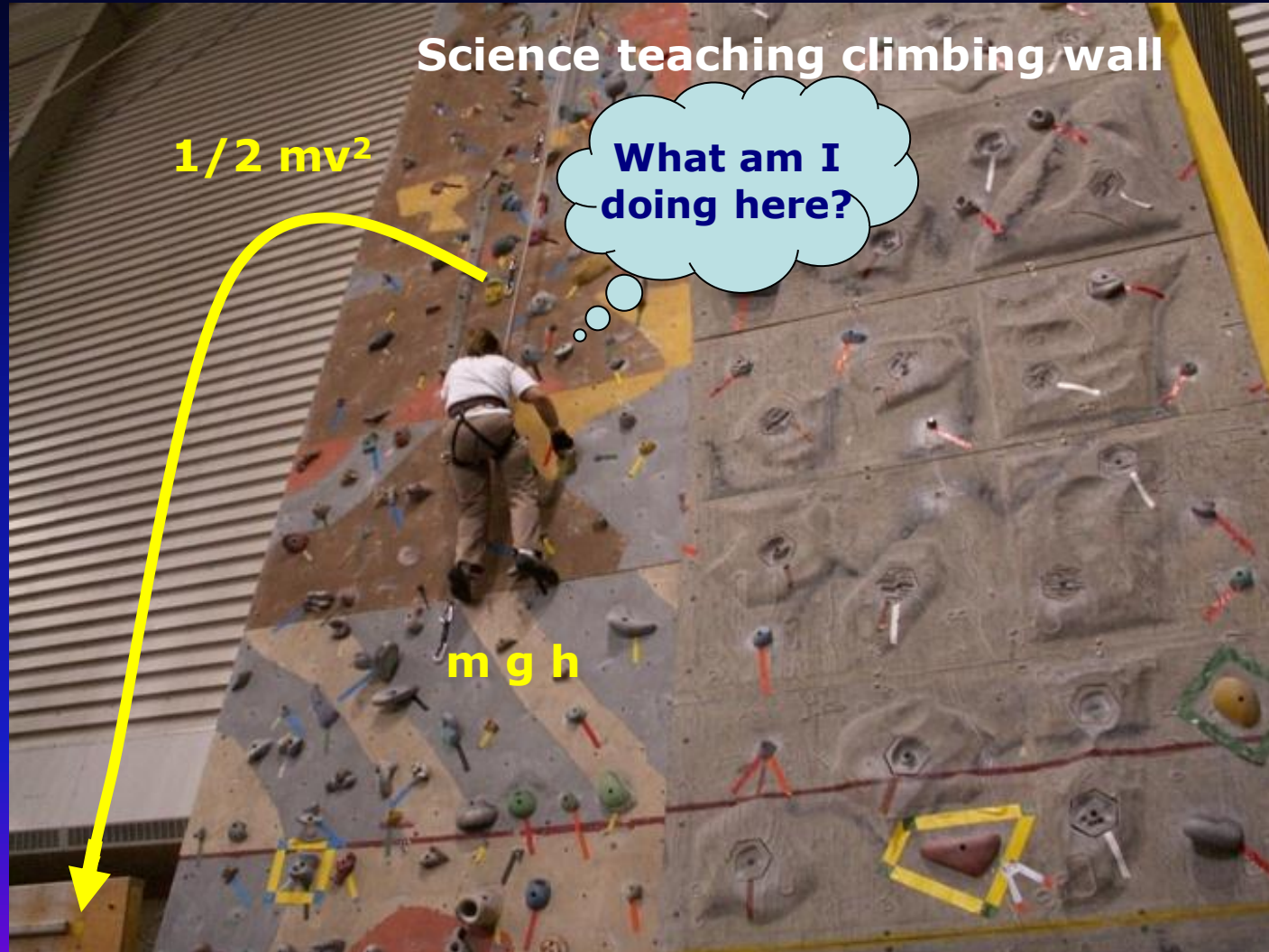
# **SCIENCE IS ALIVE !**



# How researchers view science

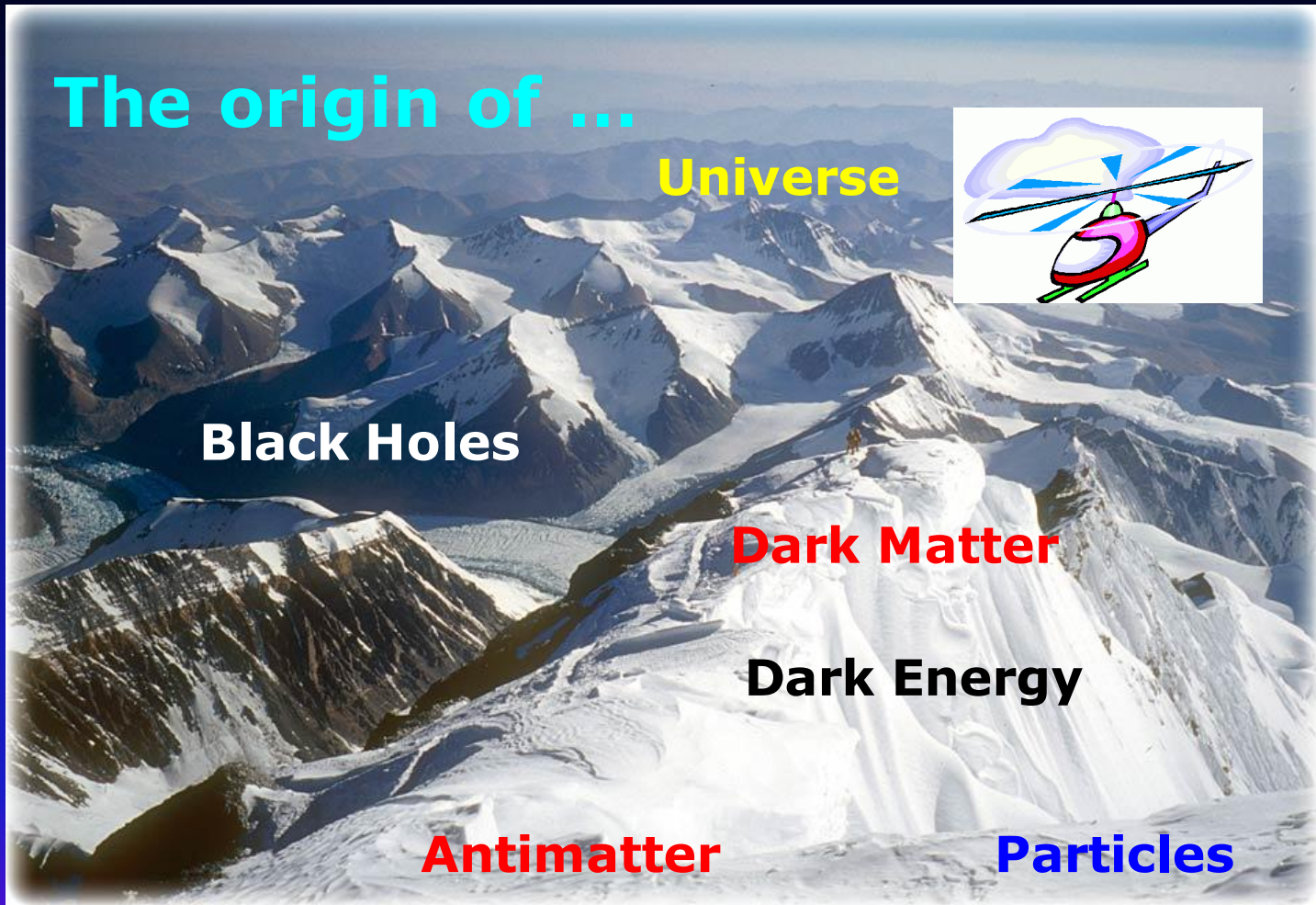


# How school students view science





# 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



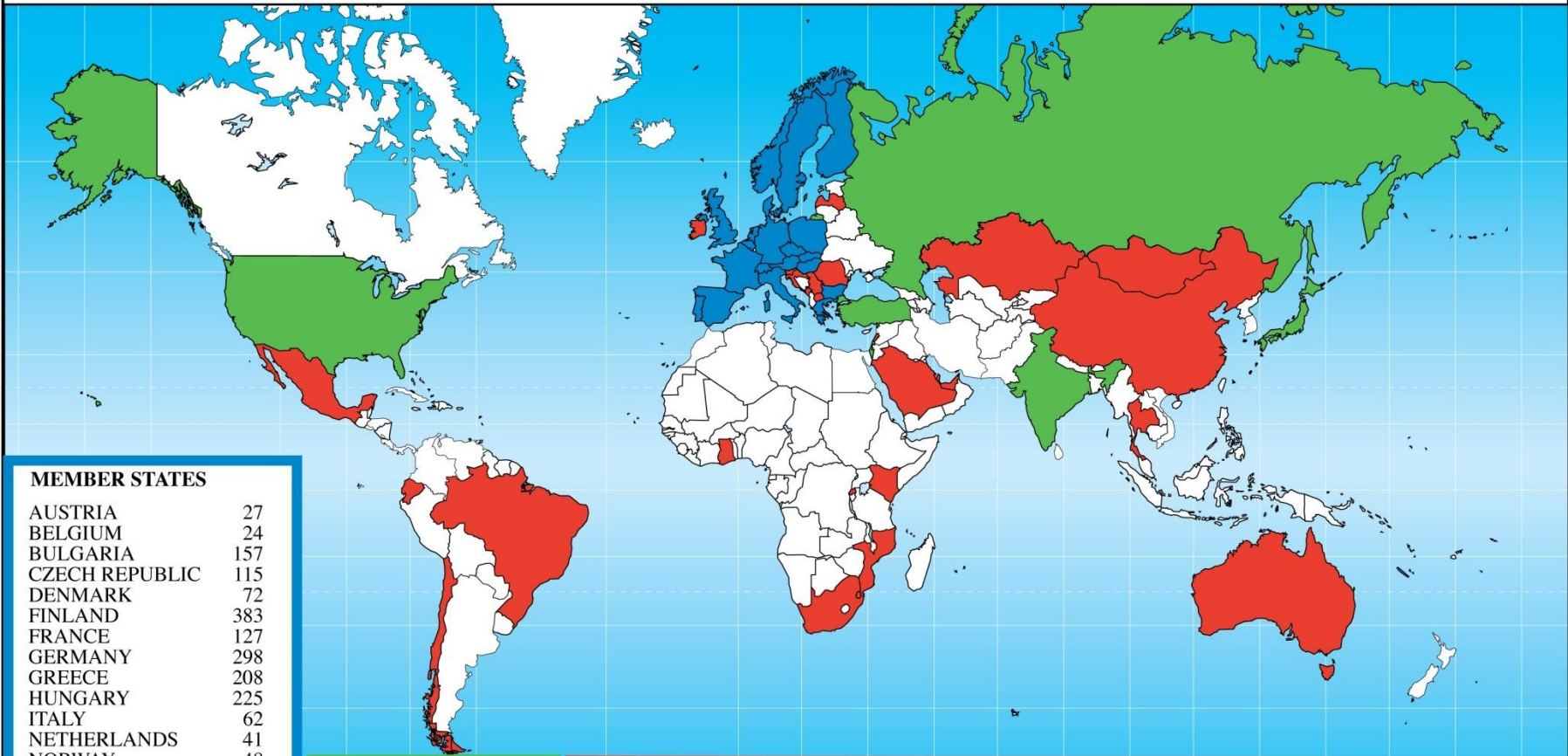


# Outcome

- 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 - 2010



## MEMBER STATES

AUSTRIA	27
BELGIUM	24
BULGARIA	157
CZECH REPUBLIC	115
DENMARK	72
FINLAND	383
FRANCE	127
GERMANY	298
GREECE	208
HUNGARY	225
ITALY	62
NETHERLANDS	41
NORWAY	48
POLAND	485
PORTUGAL	212
SLOVAKIA	189
SPAIN	168
SWEDEN	79
SWITZERLAND	34
UNITED KINGDOM	668

## OBSERVER STATES

INDIA	2
ISRAEL	1
JAPAN	2
RUSSIA	84
TURKEY	2
USA	51

## OTHERS

AUSTRALIA	1	GHANA	2	MONTENEGRO	13	SLOVENIA	21
AZERBAIJAN	1	IRELAND	3	MOZAMBIQUE	9	SOUTH AFRICA	6
BRAZIL	32	KAZAKHSTAN	3	QATAR	1	SWAZILAND	1
CAPE VERDE	1	KENYA	1	ROMANIA	7	THAILAND	2
CHILE	3	LATVIA	1	RWANDA	7	F.Y.R.O.M.	11
CHINA	1	LEBANON	1	SAO TOME	1	U.A.E.	1
CROATIA	1	MALTA	36	SAUDI ARABIA	1		
ECUADOR	1	MEXICO	5	SERBIA	10		
		MONGOLIA	1	SINGAPORE	2		

**3622**

**142**

**187**



# 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**