



# CERN Teacher Programmes

Inspiring the next generation of scientists

Mick Storr

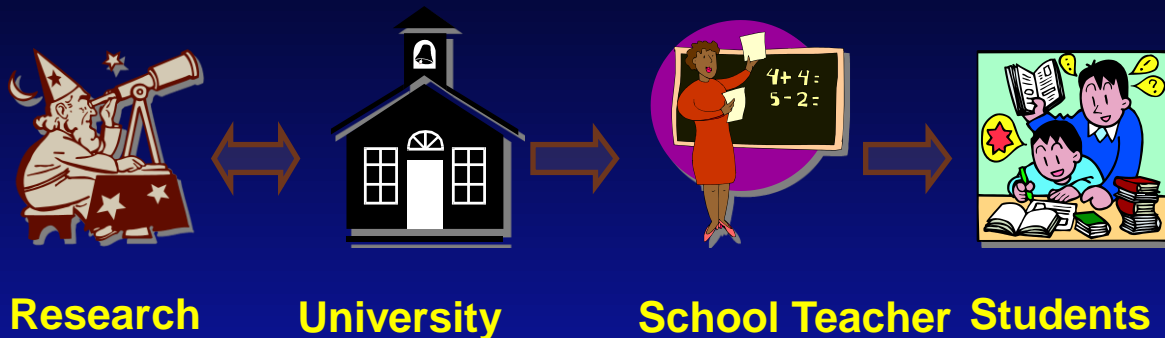
Head CERN Teacher Programmes  
and  
Visits Service



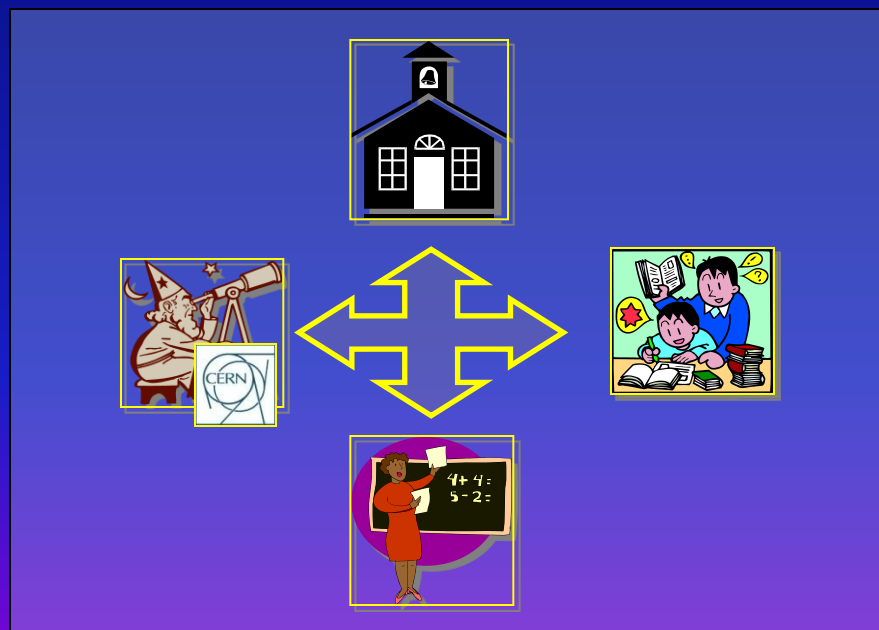
# Objective of Teacher Programmes

## To bring modern research closer to schools

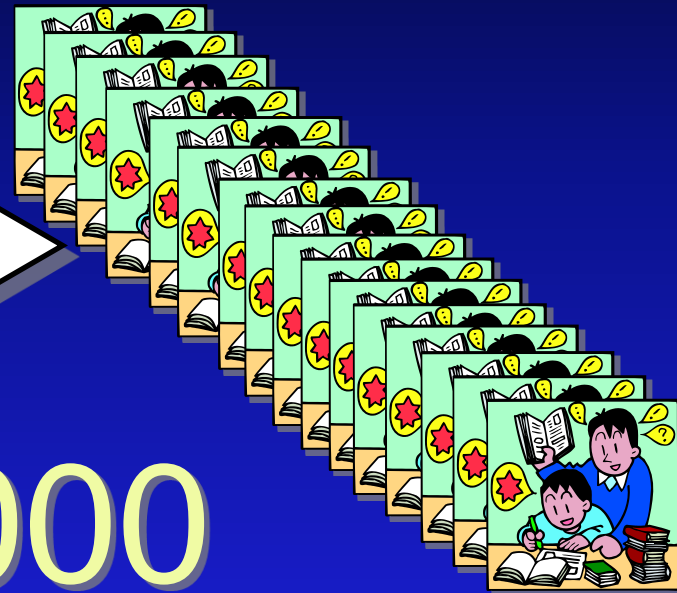
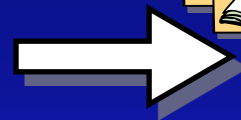
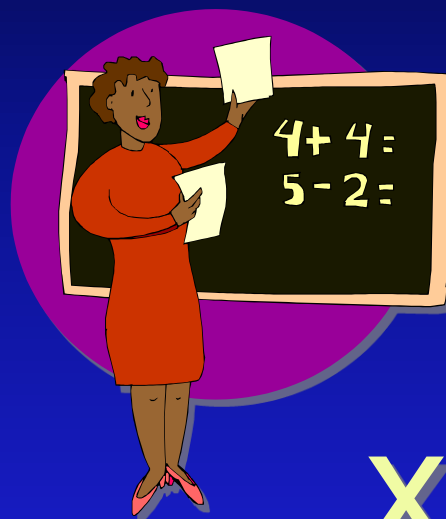
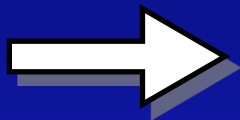
OLD



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 science at universities

### **Prepare the future generation of scientists**

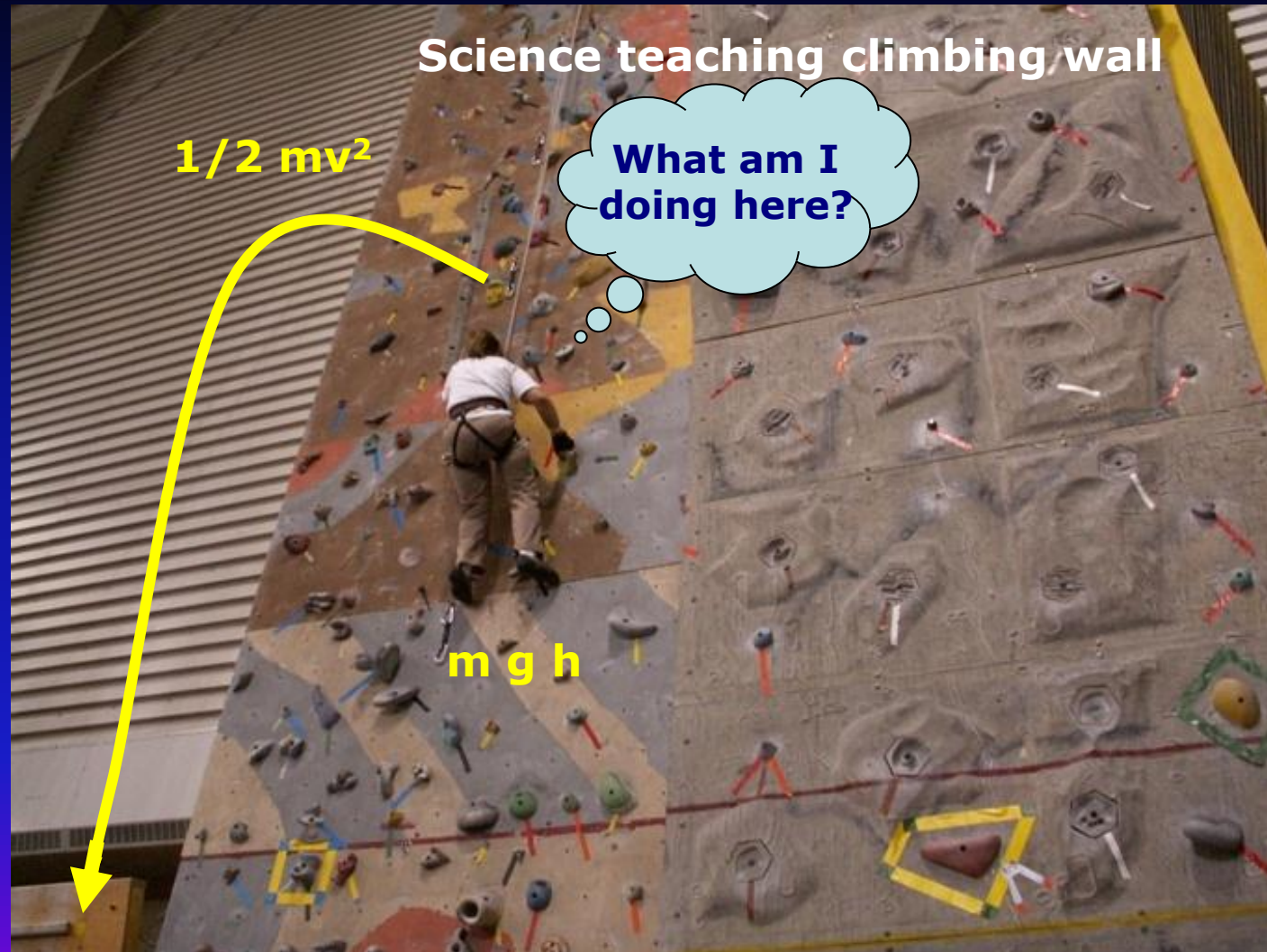
# **SCIENCE IS ALIVE !**

# 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**



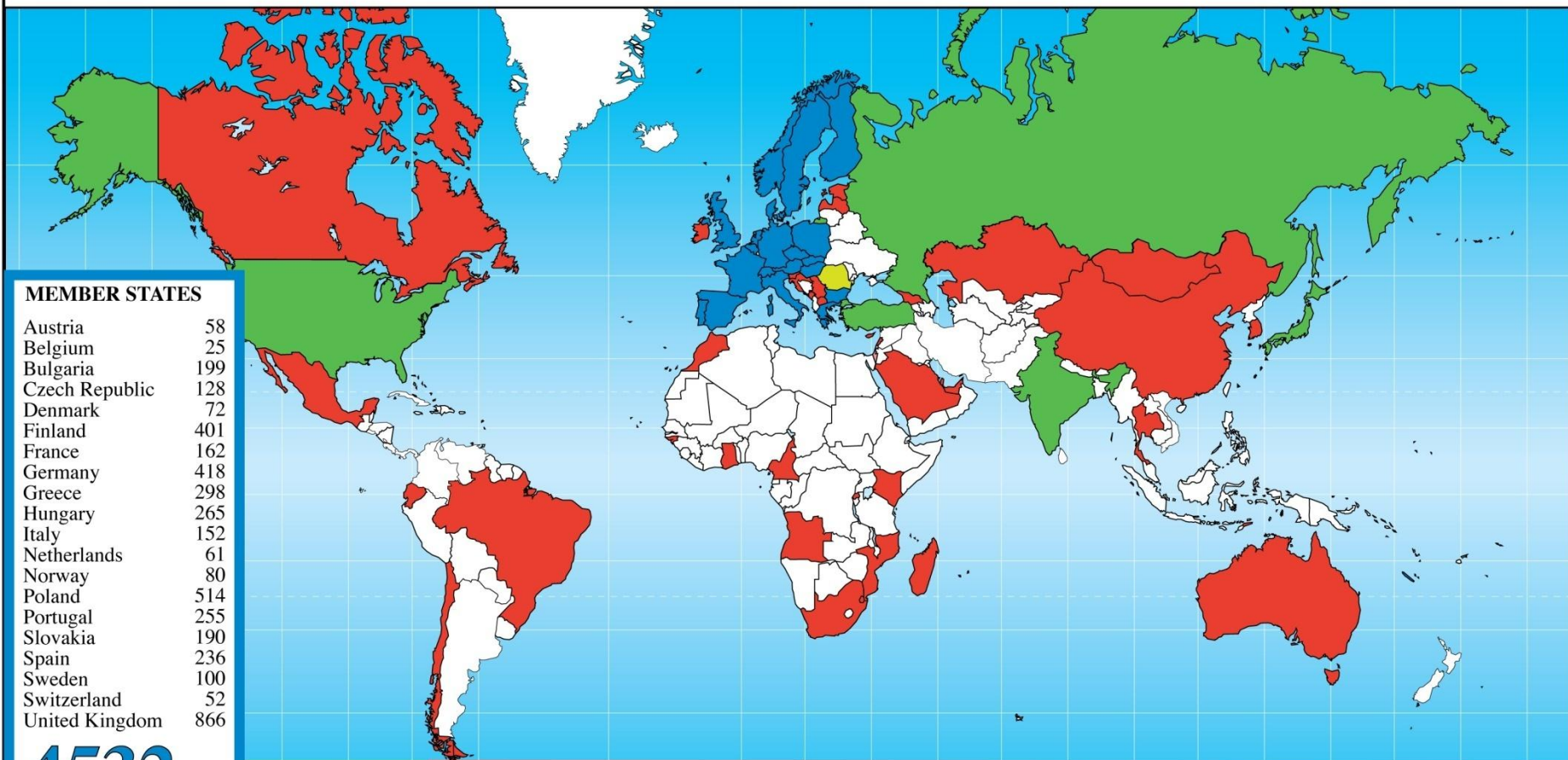


# Outcome

- 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 - 2011



## MEMBER STATES

Austria	58
Belgium	25
Bulgaria	199
Czech Republic	128
Denmark	72
Finland	401
France	162
Germany	418
Greece	298
Hungary	265
Italy	152
Netherlands	61
Norway	80
Poland	514
Portugal	255
Slovakia	190
Spain	236
Sweden	100
Switzerland	52
United Kingdom	866

**4532**

## CANDIDATE FOR ACCESSION

Romania	10
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## ASSOCIATE MEMBER IN THE PRE-STAGE TO MEMBERSHIP

Israel	2
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## OBSERVER STATES

India	2
Japan	3
Russia	132
Turkey	3
USA	56

**196**

## 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	18
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
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
Ukraine	30
U.A.E.	1

**353**



# 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**