



# CERN Teacher Programmes

Inspiring the next generation of scientists

Mick Storr

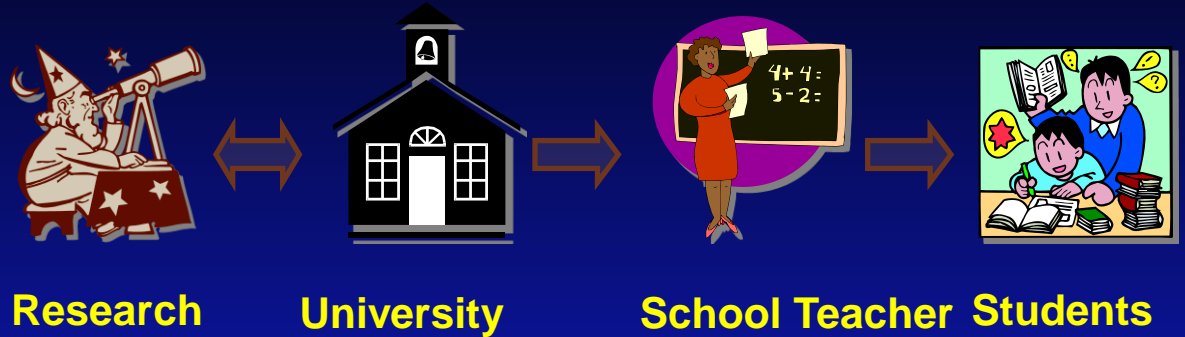
Head CERN Teacher Programmes  
and  
Visits Service



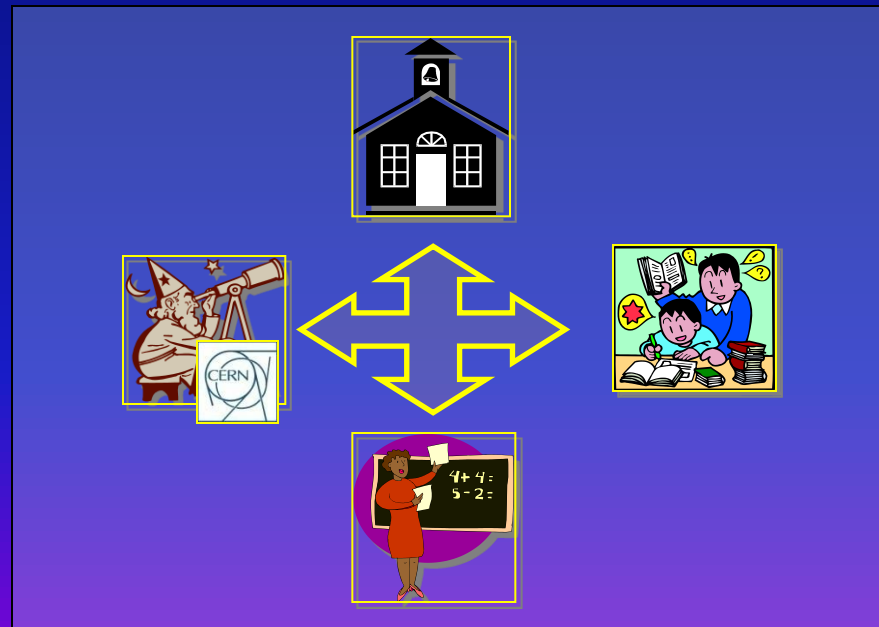
# Objective of Teacher Programmes

## To bring modern research closer to schools

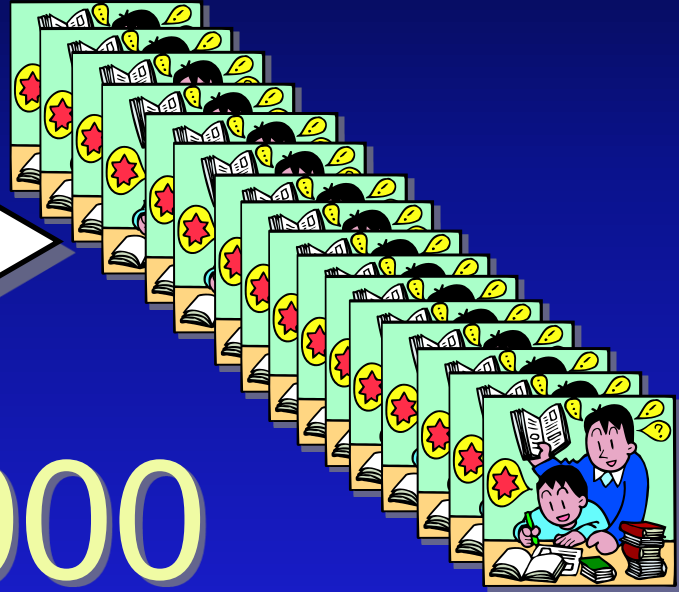
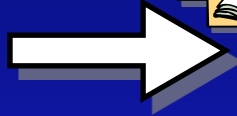
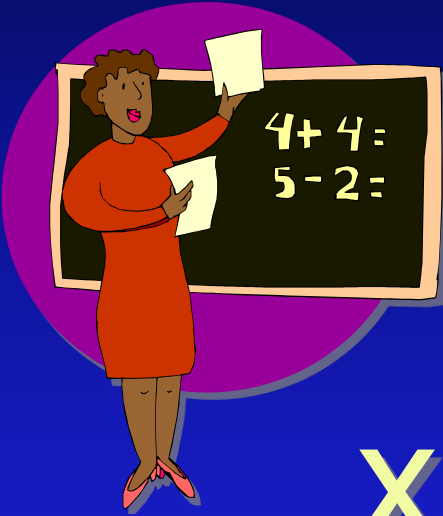
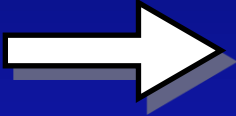
OLD



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 !**



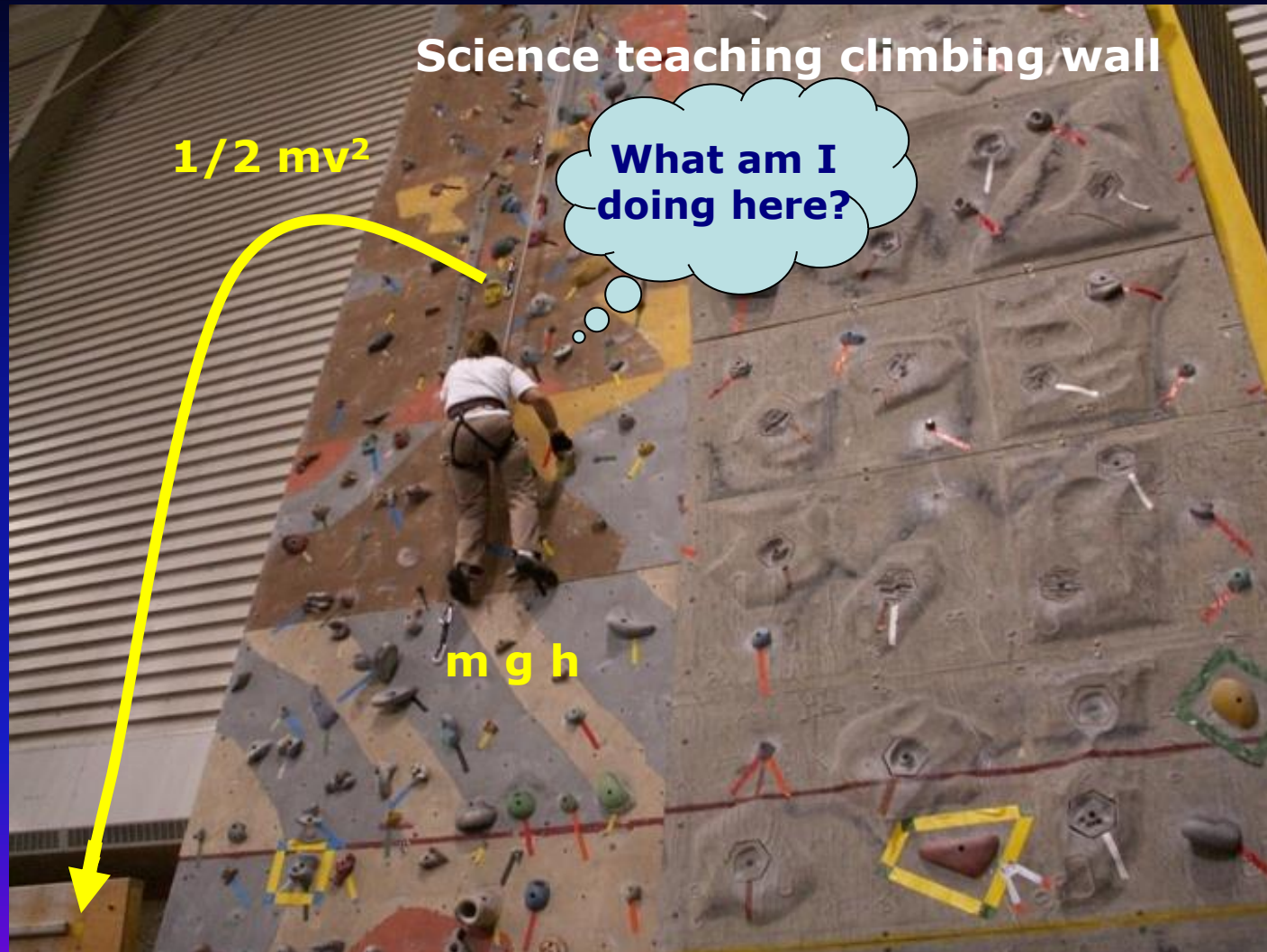
# How researchers view science





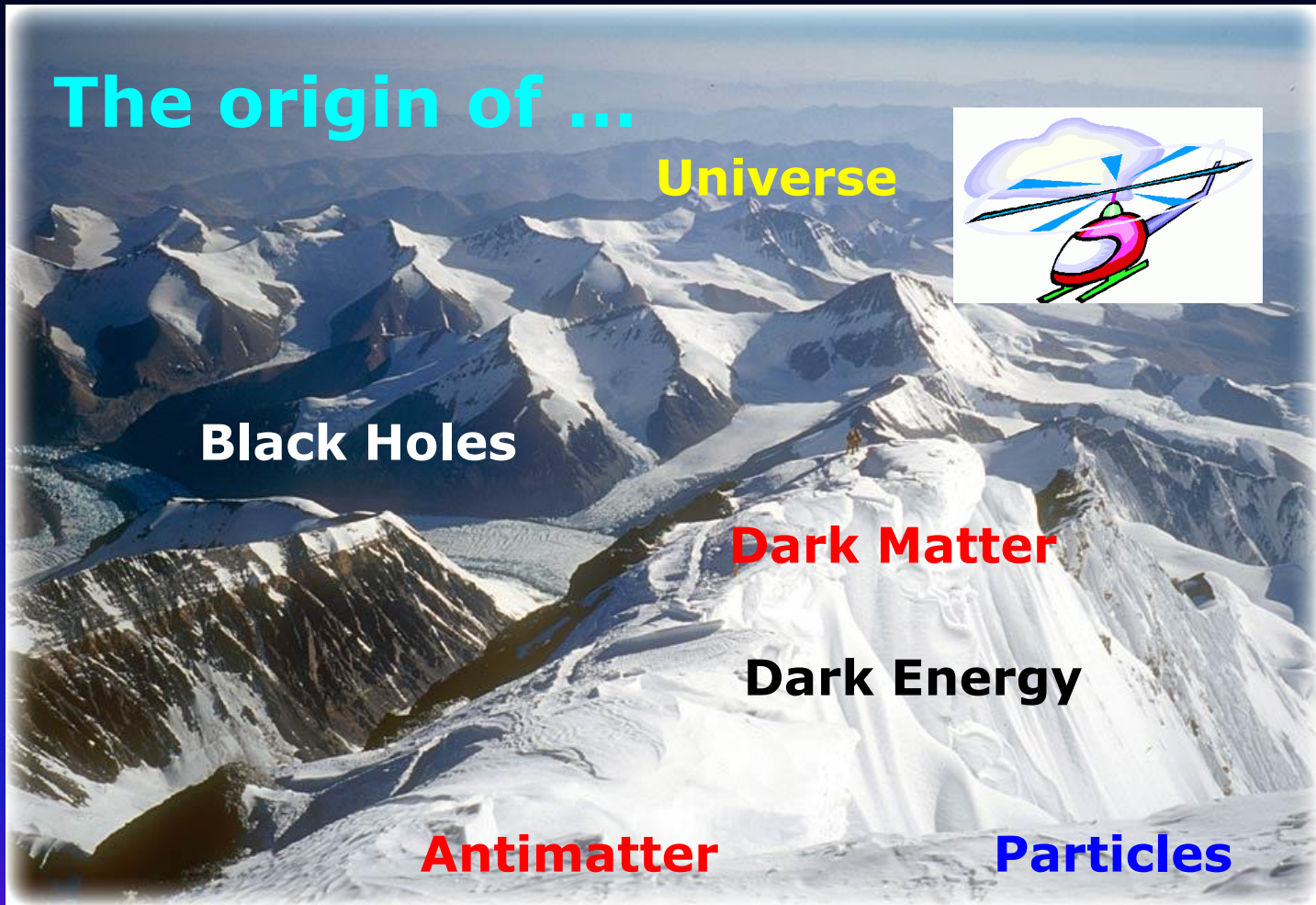


# How school students view science





# 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



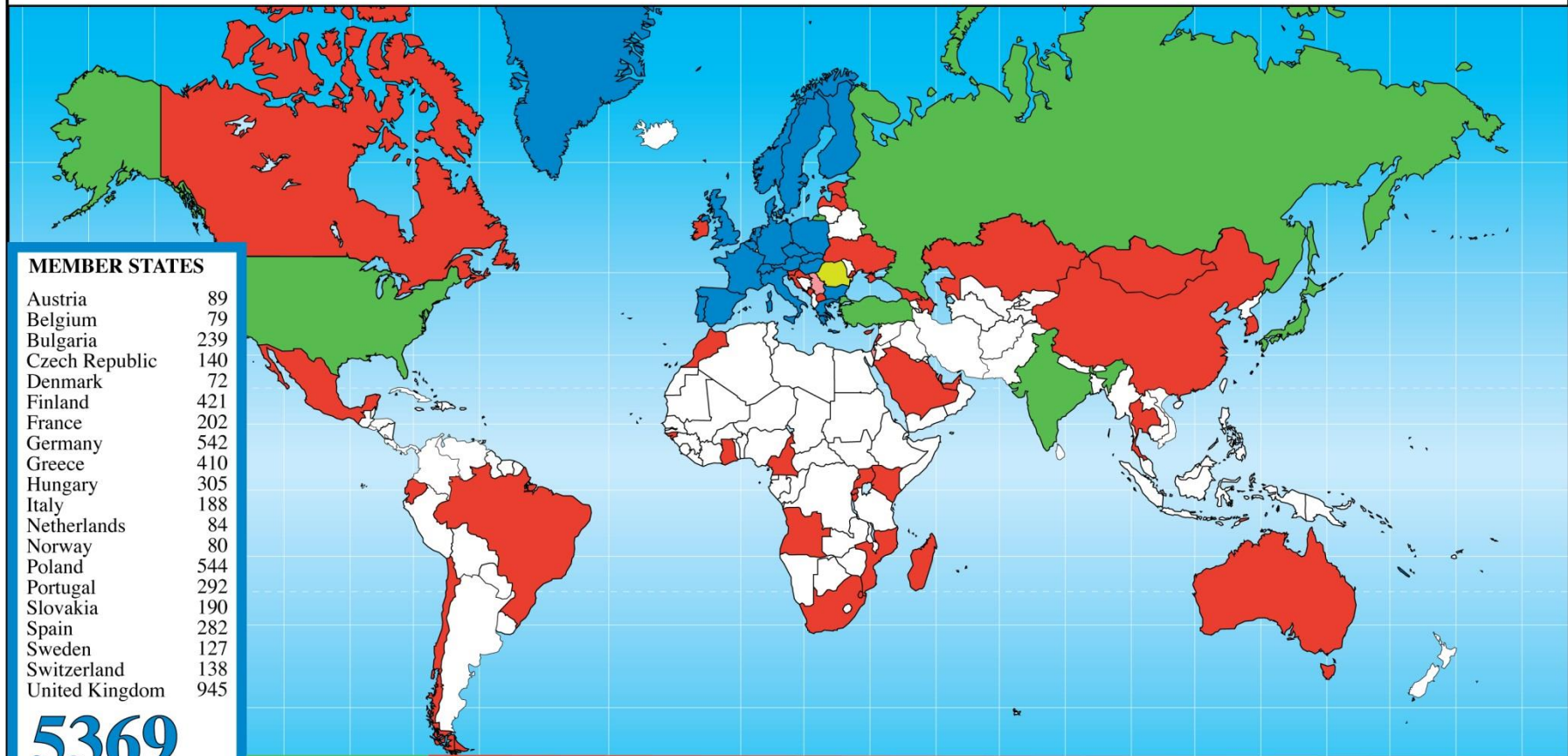


# Outcome

- 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**

# Teacher Programme Participants 1998 - 2012



## MEMBER STATES

Austria	89
Belgium	79
Bulgaria	239
Czech Republic	140
Denmark	72
Finland	421
France	202
Germany	542
Greece	410
Hungary	305
Italy	188
Netherlands	84
Norway	80
Poland	544
Portugal	292
Slovakia	190
Spain	282
Sweden	127
Switzerland	138
United Kingdom	945

**5369**

## CANDIDATE FOR ACCESSION

Romania	11
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## ASSOCIATE MEMBER IN THE PRE-STAGE TO MEMBERSHIP

Israel	4
Serbia	12

## OBSERVER STATES

India	2
Japan	4
Russia	163
Turkey	3
USA	61

**233**

## OTHERS

Angola	4	Chile	3	Kazakhstan	3	Mozambique	17	Thailand	6
Australia	3	China	1	Kenya	2	Qatar	1	T.F.Y.R.O.M.	11
Azerbaijan	1	Croatia	1	Latvia	1	Rwanda	15	Timor-Leste	4
Brazil	83	Cyprus	8	Lebanon	1	Sao Tome	3	Uganda	1
Burundi	1	Ecuador	2	Madagascar	2	Saudi Arabia	1	Ukraine	57
Cameroon	3	Estonia	35	Malta	36	Singapore	2	U.A.E.	1
Canada	2	Georgia	55	Mexico	5	Slovenia	21		
Cape Verde	3	Ghana	6	Mongolia	1	South Africa	6		
		Guinea Bissau	1	Montenegro	13	South Korea	44		
		Ireland	3	Morocco	2	Swaziland	1		

**472**



# 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**