



**The Abdus Salam  
International Centre for Theoretical Physics**



**1833-2**

**Workshop on Understanding and Evaluating Radioanalytical  
Measurement Uncertainty**

*5 - 16 November 2007*

**Overview, structure and current status of ALMERA**

Umberto SANSONE  
*International Atomic Energy Agency IAEA  
Agency's Laboratories Seibersdorf  
Chemistry Unit, A-2444 Seibersdorf  
AUSTRIA*

# **ALMERA**

## **Analytical Laboratories for the Measurement of Environmental Radioactivity**

*Overview, structure and current status of ALMERA*

*Umberto Sansone*  
*IAEA's Laboratories Seibersdorf (Austria)*

*ICTP, Trieste, Italy*  
*5-7 November 2007*



**IAEA**

*Atoms for Peace: The First Half Century*  
*1957-2007*

# ALMERA

**ALMERA 1st coordination meeting – IAEA, Vienna**  
Establishment of ALMERA

**ALMERA 2nd coordination meeting – ICTP, Trieste**  
The IAEA was requested to develop a draft proposal for the new structure

**ALMERA 3rd coordination meeting – KINS, Korea**  
The IAEA proposal for the network was discussed and approved

1995

2005

2006



**IAEA**

*Atoms for Peace: The First Half Century*

1957-2007



# ALMERA objectives

The network makes available to Member States a world-wide network of analytical laboratories capable of providing reliable and timely analysis of environmental samples in the event of an accidental or intentional release of radioactivity

*The objective of the ALMERA network is to maintain a world-wide group of laboratories capable of:*

- *providing reliable and timely analysis of environmental samples in the event of an accidental or intentional release of radioactivity in the environment*
- *providing assistance to neighbouring regions or other Member States in the event of an accidental or intentional release of radioactivity in the environment*
- *being a source of reliable and consistent information and advice for government bodies*



# Nomination for membership in ALMERA

**The nomination** of laboratories for membership in ALMERA **has to be made by their governments** and the IAEA has to be informed about the nominations through the Permanent Missions of the Member States to the Agency



There is **no deadline** for such a nomination

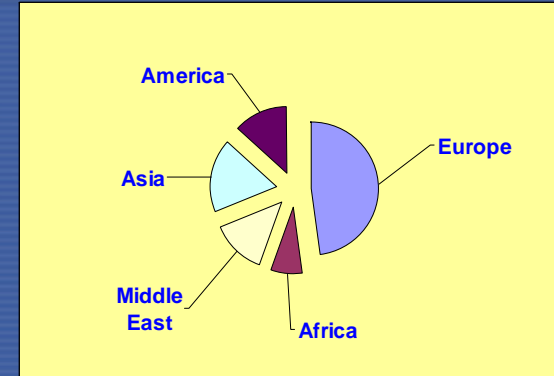






# ALMERA members

**ALMERA** currently (November 2007) consists of **106 laboratories** representing **67 countries**



The Agency's

**Seibersdorf Laboratory in Austria**

and its

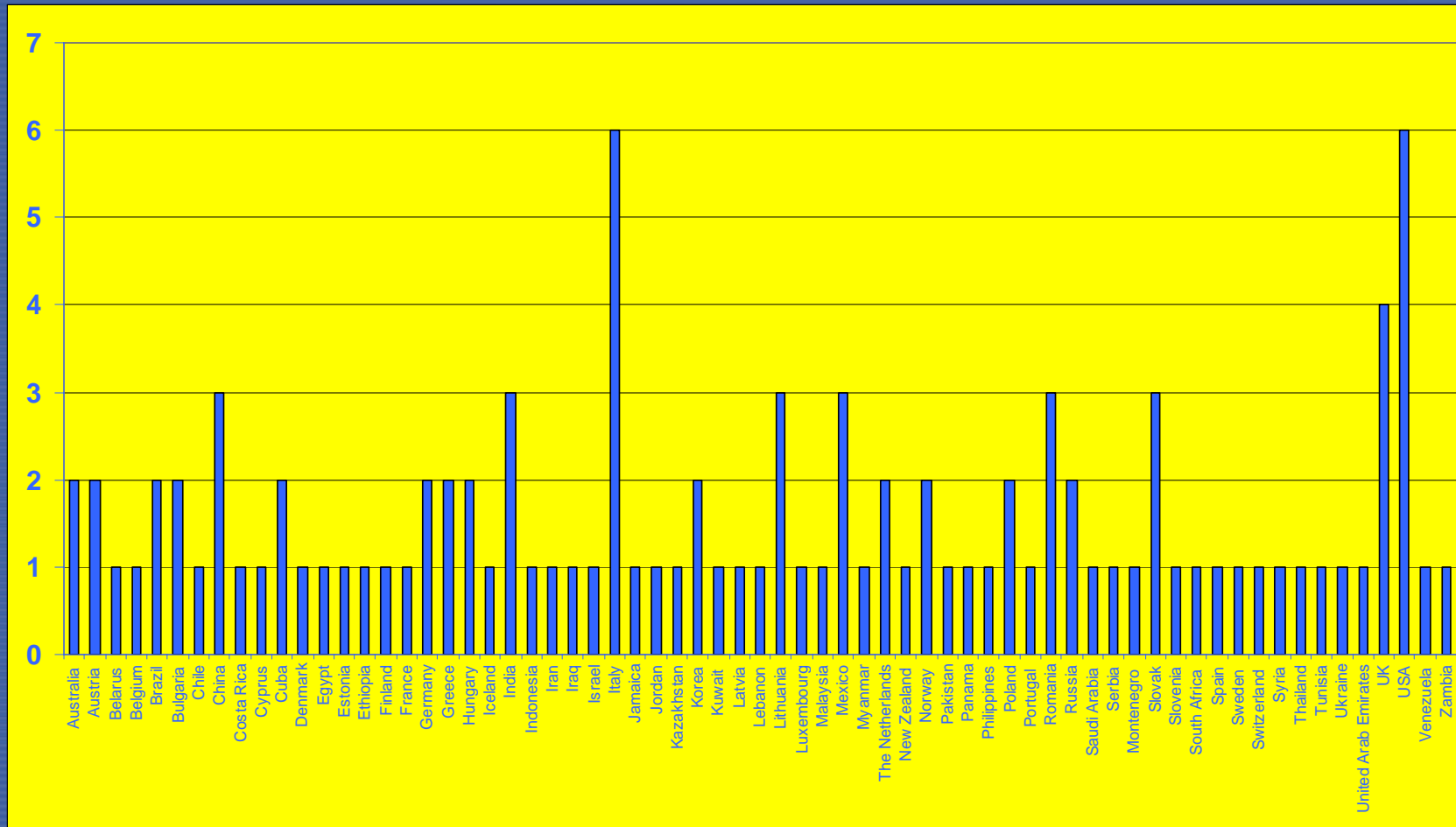
**Marine Environment Laboratory in Monaco**

are **members** of the network





# ALMERA members





# Structure of ALMERA – 2007/2009

## Central coordination

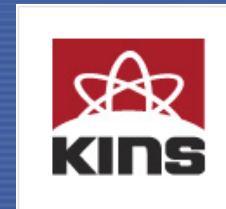
The Chemistry Unit of the Physics, Chemistry and Instrumentation (PCI) Laboratory in the Agency's **Seibersdorf Laboratory in Austria** is the central coordinator of the ALMERA network's activities

## Regional groups

Africa-Europe-Middle East → IAEA

Asia-Pacific → KINS, Korea

North & Latin America → CNEN-IRD, Brazil







# ALMERA meetings

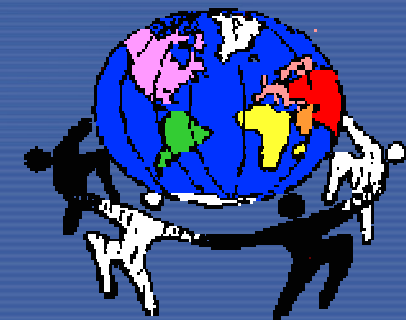
The objectives of the meetings are to improve communications, to evaluate the status of the laboratories, to improve their technical competence through standardization of sampling, monitoring and measurement protocols and through staff training



The **annual coordination** meeting with the ALMERA members should take place on rotation between the different regional groups

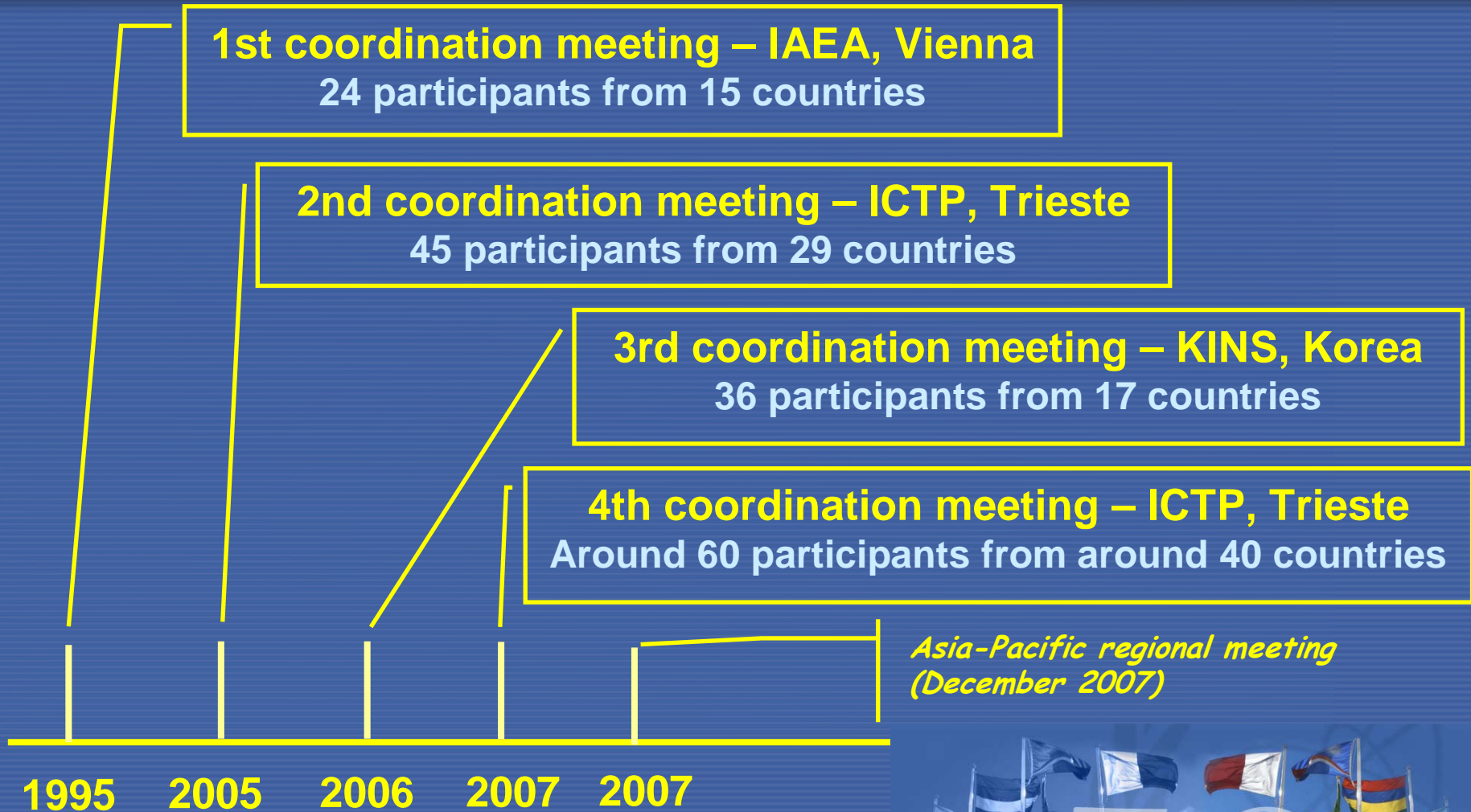


To increase interaction between the laboratories, the IAEA should partially cover the expenses for the participation at the meeting of some of the laboratories belonging to the same regional group





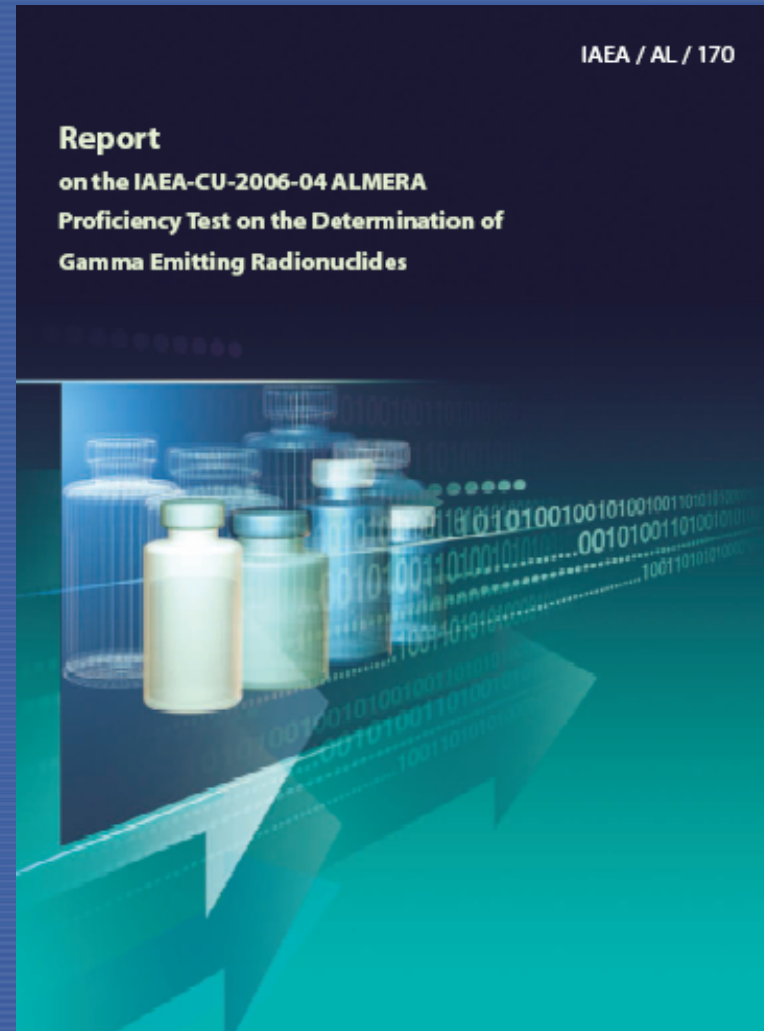
# ALMERA meetings



# Analytical performance of the ALMERA members

A primary requirement of the ALMERA members is participation in the IAEA interlaboratory comparison exercises which are specifically organized for ALMERA on a regular basis

The exercises are designed to monitor and demonstrate the performance and analytical capabilities of the network members, and to identify gaps and problem areas where further development is needed



# Evaluation of the analytical performance of the ALMERA members

**The performance evaluation** results of the interlaboratory comparison exercises performed in the frame of the ALMERA network **are not anonymous** for those laboratories nominating to participate as ALMERA members.





# Evaluation of the analytical performance of the ALMERA members

The laboratories participating in the ALMERA interlaboratory comparison exercises will be asked to report results to the organizer at

- Short-term reporting time and
- long-term reporting time

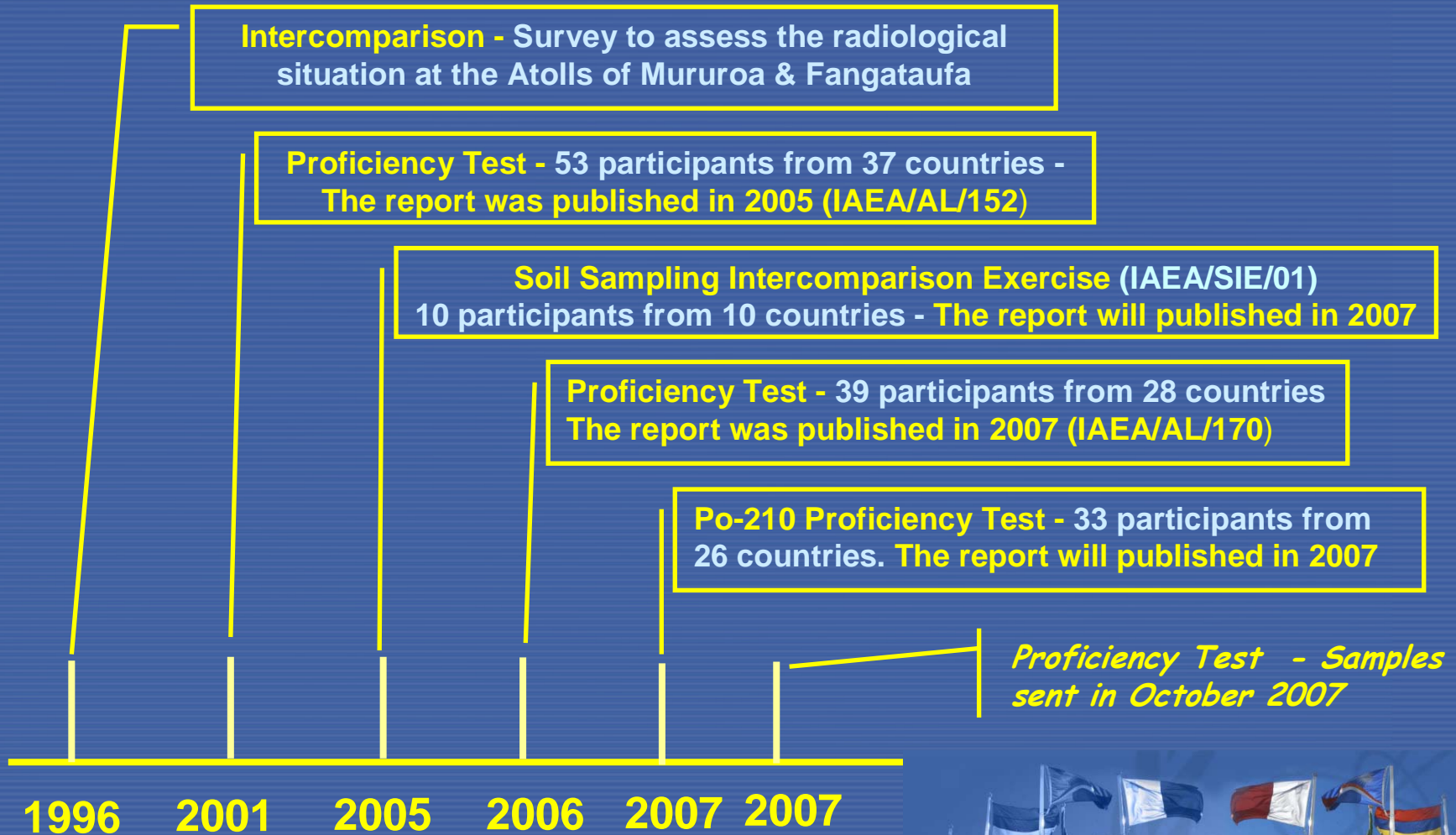
It should be noted that the approach for evaluation of the results for the rapid and normal (longer-term) reporting time may be carried out on a different basis. This is because it cannot be expected that the same trueness and precision would be reached for a rapid analysis as for a longer-term analysis





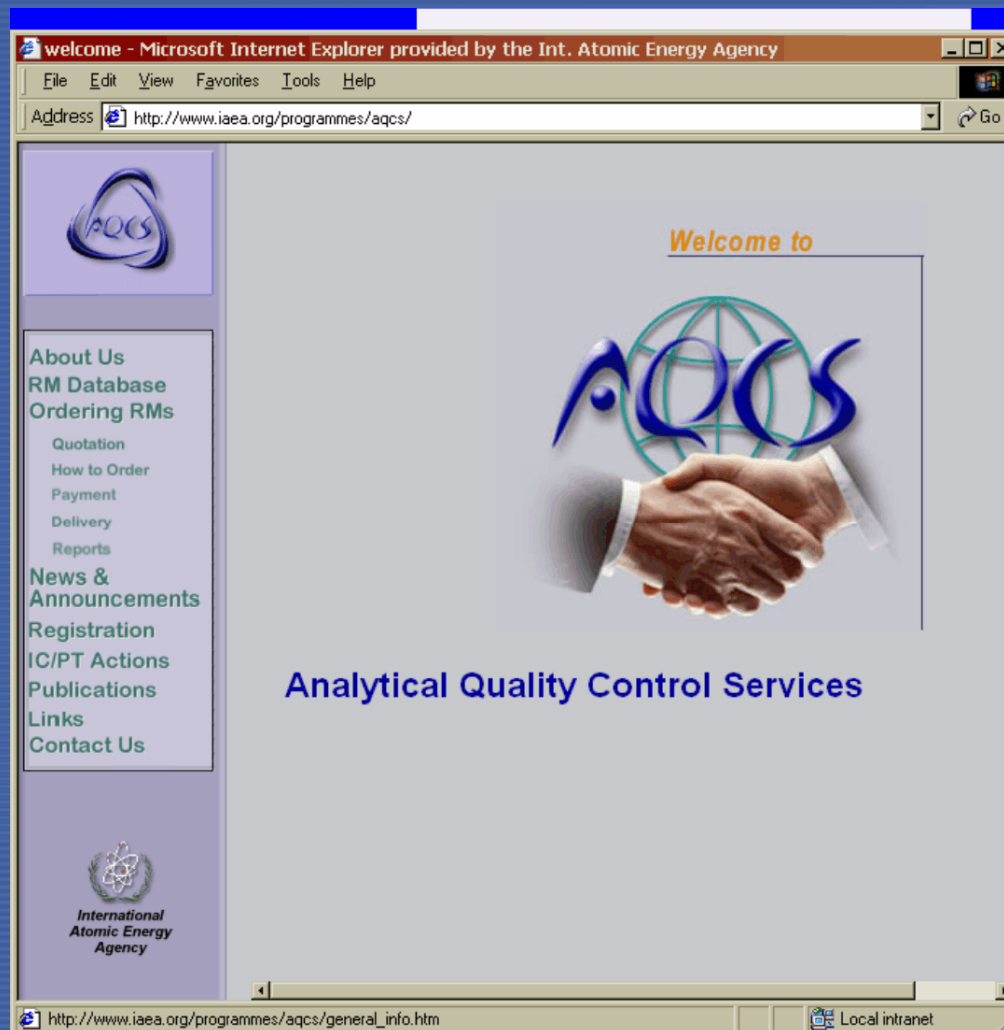


# ALMERA Interlaboratory exercises



# ALMERA on the IAEA web site

<http://www.iaea.org/programmes/aqcs/news.shtml>



# Criteria to be an active member of ALMERA

To be an active member of the network, the ALMERA laboratories **have to participate in the interlaboratory comparison exercises** specifically organized by the IAEA for the ALMERA network, present acceptable results, and do analyses on a routine basis

The participation in and the results of the ALMERA interlaboratory comparison exercises will be published by the IAEA.

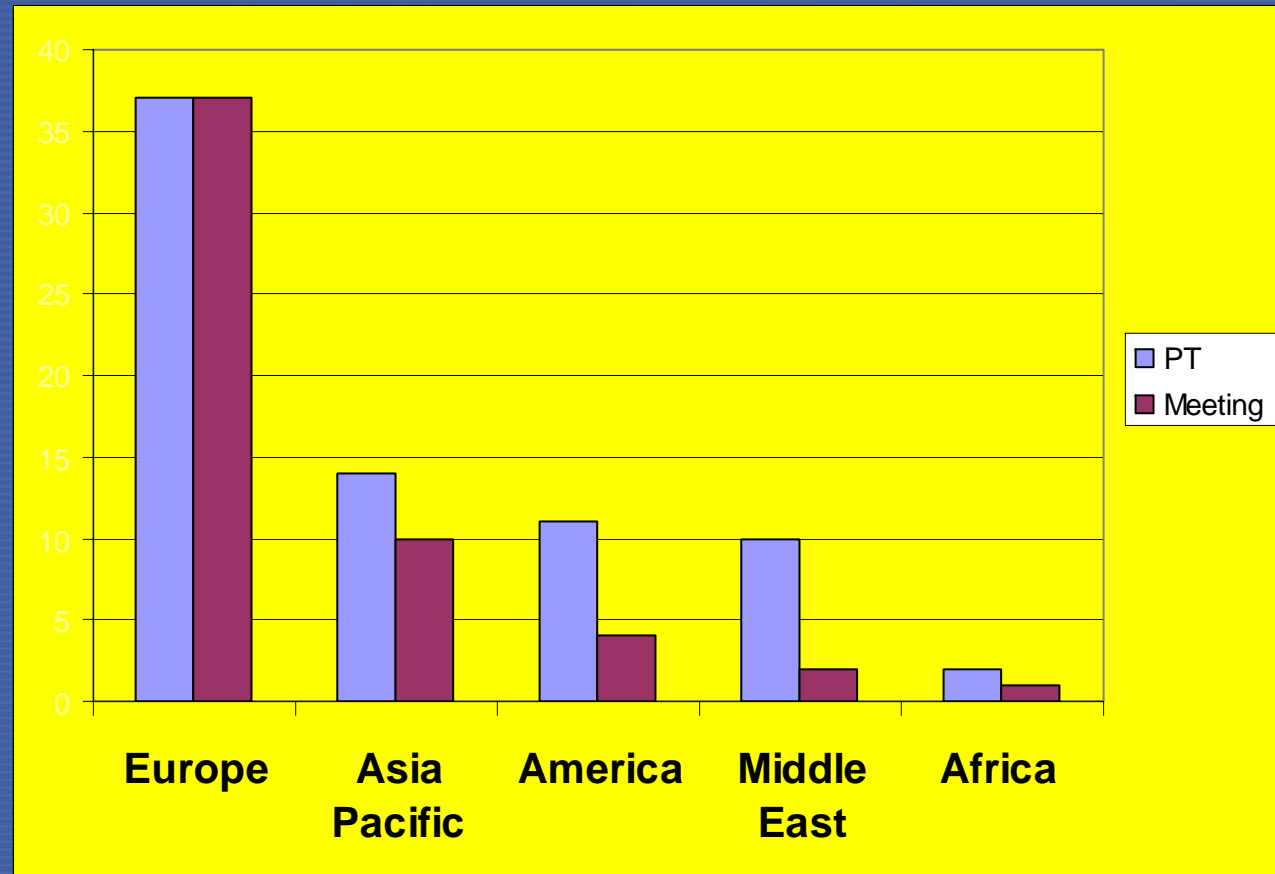
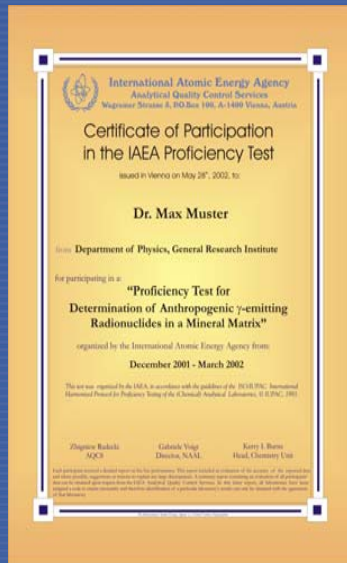


# Participation in the ALMERA events

Country	Region	1995 M	2001 PT	2005 M	2005 SIE	2006 PT	2006 M	2007 PT	2007 Po PT	2007 M

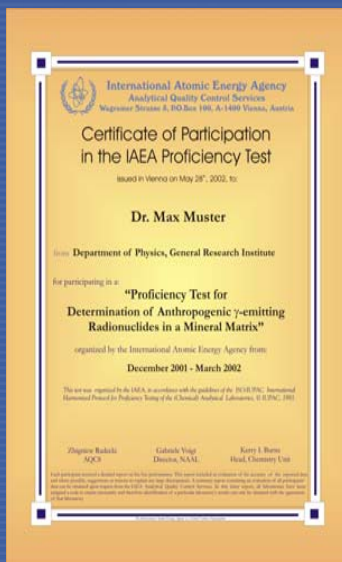


# Participation in the ALMERA events





# Participation in the ALMERA events



Country	Region	1995 M	2001 PT	2005 M	2005 SIE	2006 PT	2006 M
Australia	Asia-Pacific						
Australia	Asia-Pacific						
China	Asia-Pacific						
China	Asia-Pacific						
China	Asia-Pacific						
India	Asia-Pacific						
India	Asia-Pacific						
India	Asia-Pacific						
Indonesia	Asia-Pacific						
Korea	Asia-Pacific						
Korea	Asia-Pacific						
Malaysian	Asia-Pacific						
Myanmar	Asia-Pacific						
New Zealand	Asia-Pacific						
Pakistan	Asia-Pacific						
Philippine	Asia-Pacific						
Thailand	Asia-Pacific						

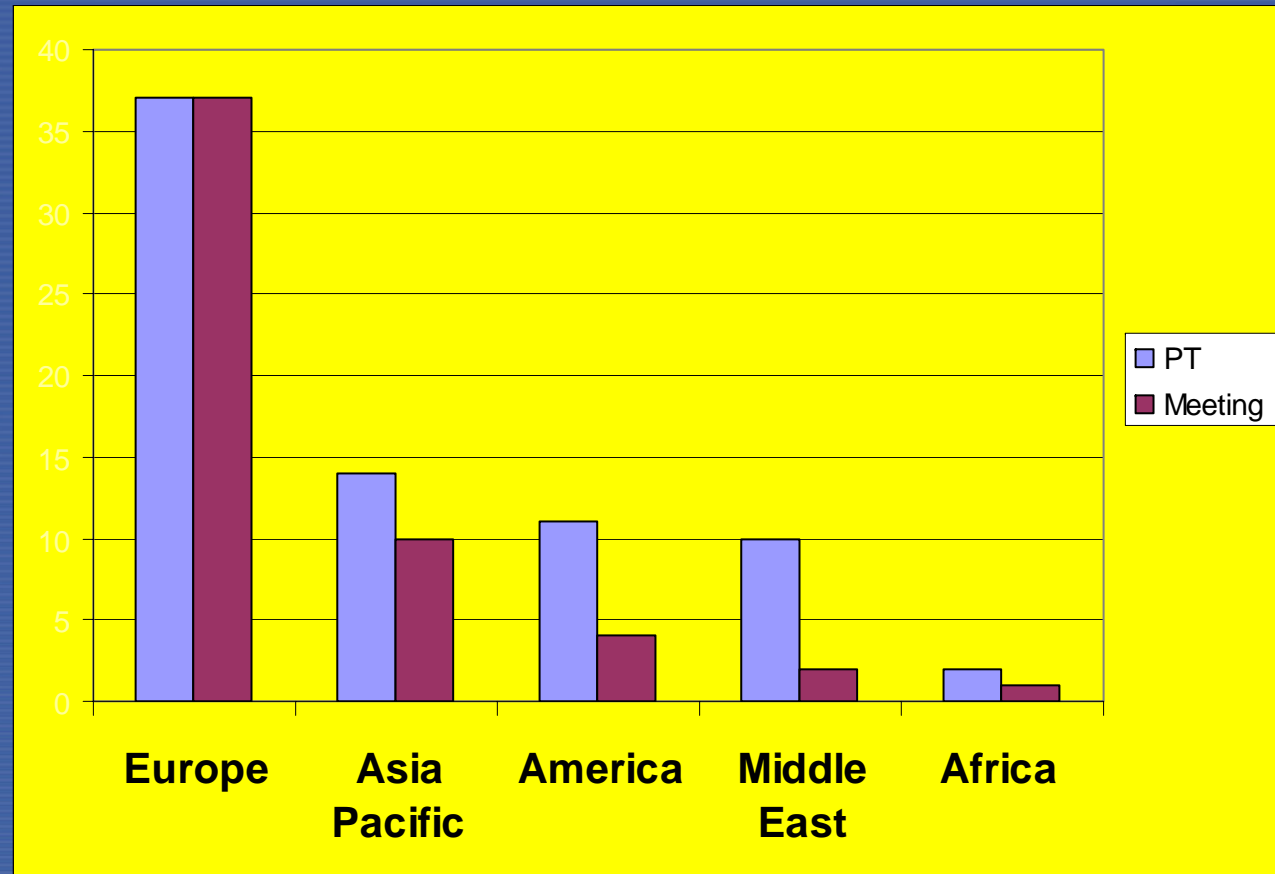
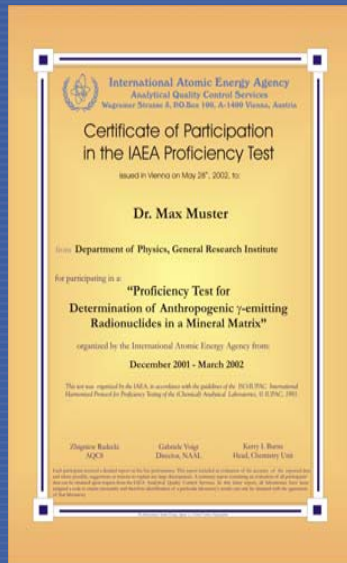


**IAEA**

Atoms for Peace: The First Half Century

1957-2007

# Participation in the ALMERA events



# Participation in the ALMERA events



Country	Region	1995 M	2001 PT	2005 M	2005 SIE	2006 PT	2006 M
Brazil	America						
Brazil	America						
Chile	America						
Costa Rica	America						
Cuba	America						
Cuba	America						
Jamaica	America						
Mexico	America						
Mexico	America						
Mexico	America						
Panama	America						
USA	America						
USA	America						
USA	America						
USA	America						
USA	America						
USA	America						
Venezuela	America						



Grazie!

