

Closing remarks

Giuseppe Grandori, Past-President of IAEE

Ladies and gentlemen,

Three new countries became members of our Association, Croatia, Macedonia and Slovenia. I wish to express a warm welcome to these new member countries.

I wish to illustrate briefly a general remark on the effectiveness of Earthquake Engineering research.

There is a general consciousness of the large uncertainties that affect hazard and risk analysis. Moreover, as Professor Bertero said in his opening lecture, it seems that, in spite of the efforts of earthquake engineers, victims and damage due to earthquakes are increasing.

However, from a strictly technical point of view, a rough measure of the effectiveness of Earthquake Engineering research can be expressed in a different way.

We could say that, for ordinary buildings in earthquake prone zones, a proper design based on Earthquake Engineering suggestions leads to increase of the initial cost by a factor 1.1 or less, while reducing the expected number of victims by a factor 10 or more.

A good balance, that becomes even better in the total cost, including future damage, is considered.

If in a global statistics the results are not satisfactory, this is due to the fact that the use of Earthquake Engineering teachings is strongly influenced by political, economic, social conditions, including the difficulties we have in communicating effectively our results outside the scientific community.

We must obviously improve our knowledge and reduce uncertainties. However, the main challenge for Earthquake Engineering community is to obtain a better social use of its results, to prepare in each country detailed and realistic plans for the improvement of seismic safety, to convince politicians, administrators and common people that to design earthquake resistant buildings and especially to strengthen old buildings is a good investment.

Thank you for your attention.