NEMOH: Numerical, Experimental and stochastic Modelling of vOlcanic processes and Hazard: an Initial Training Network for the next generation of European volcanologists

Description

Volcanic eruptions, and associated hazards, are a constant concern for many European countries and for Europe as a whole. During last decades, disciplines like thermodynamics, fluid dynamics, structural mechanics, and advanced experiments and computation, have been incorporated in volcano science, and formalized treatment of uncertainties has become a prominent means of volcanic hazard evaluation. This has developed volcanology to the level of a multidisciplinary, quantitative branch of the Earth Sciences. However, critically, such developments have not been accompanied by a comparable evolution of the curricula of students and young scientists undertaking a career in volcanology.

The training objective of the NEMOH consortium was to form the next generation of European volcanologists, capable of extending further the knowledge and understanding of volcano dynamics and the methods and paradigms for volcanic hazard evaluation. Research Training is conceived to develop in the context of top level, internationally coordinated research structured in closely interconnected WorkPackages. A distinctive feature of RT within NEMOH was the merging of deterministic and probabilistic approaches in volcanic hazard evaluation, a crucial objective of modern volcanology. Nine Full Network Partners plus 4 Associated Partners (including 2 SMEs and 1 Governmental Civil Protection Department) composed the NEMOH consortium. Training was developed through interrelated local and network-wide activities, and was extended to 18 ESRs for a total of 528 research months. Four Visiting Scientists complemented the staff of trainers within NEMOH. Four Network RT Schools, the last one associated with a 3-days Final Conference, and two Special Sessions plus Short Course at the EGU General Assemblies in years 3 and 4, represented topical activities within NEMOH. Organization and management included 9 meetings of the Supervisory Board during the 4 years of the Network.

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