



Recent Developments in Flood Protection Technologies
*Presentation of the Self-Operated Flood Barrier “AquaFragma” and
Thoughts about the Patent Process*

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Abstract:

Technologies for property level flood protection are slowly entering the market. These technologies are compatible with the EU slogan “Living with the Floods”. Automatic flood barriers are normally hidden below floor level and deploy by themselves closing the opening through which flood water might enter a property and cause damage. A patent was recently granted for a new method and product for a self-operated flood barrier, called AquaFragma. Aquafragma is hidden under the floor during normal use, allowing unobstructed passage of people and vehicles. Flood water entering the space in which the barrier is hidden urges the gate, through a buoyant body, to rotate upwards. The gate turns to upright position before flood water reaches floor level, thus providing flood protection without the need to have side walls or deep excavations. The patent was granted by the UK Intellectual Property Office and the process continues for Europe wide protection through the EPO (European Patent Office). Lessons learned through this lengthy and costly process will be discussed at the meeting.

Biography:

Antonis, born in Famagusta in 1960, graduated with 1st Class BSc degree in Civil Engineering from University College London and got an MSc Degree with Distinction from Imperial College London in Soil Mechanics and Engineering Seismology. He then got his PhD in Hydraulics whilst working as a Research Assistant at Imperial College where he also worked for a year as a lecturer in Hydraulics. He is currently a partner in the firm Dion Toumazis & Associates, Architects and Consulting Engineers. Antonis has been involved with consultancy in civil engineering and research for many years. He took part in European COST Actions (Urban Flood Management, Flood Frequency Estimation, Sub-Urban), in the FP7 Project SMARTeST (Smart Resilience, Technology, Systems and Tools for Flood Protection) and in numerous other research projects. Aquafragma is a spin-off enterprise, inspired from the results of SMARTeST. Aquafragma was co-funded by the Ministry of Energy, Commerce, Industry and Tourism and the EU Structural Funds. The patent process is co-funded by the Research Promotion Foundation (ΙΠΕ).

* Το σεμινάριο δίδεται σε συνεργασία με το
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