

**Scope:** ☐☐ Advanced System for the Forecasting and Visualization of the Radiological Effects  
**Keywords:** Management of Radiation from Building materials, 3D Visualization Software  
**Partners:** Envirometrics Ltd  
eMedi8 digital solutions Ltd  
University of Cyprus (UCY)  
MDA (Cyprus) Ltd  
Cyprus Chamber of Commerce and Industry  
**Status:** ☐☐ Delivered - Technology Advancement & Dissemination

### Description:

Project 'ASPIDA' succeeded in developing an advanced system for the forecasting and visualization of the radiological effects of building materials to humans. The pilot software system enables the 3D virtual walk-through of imported buildings and the real-time monitoring and observation of the effects of the building materials used in specific parts of the virtual building model. The software system also enables the management of a database of building material properties and their association with specific parts of a building model through CAD software.

The 'ASPIDA' software system prototype integrates as a module in popular CAD software, enabling the:

- Two-dimensional (2D) and three-dimensional (3D) representation of the radioactivity level of various building materials.
- 3D walk-through of the virtual building model and real-time monitoring of the effects of radioactive building materials with respect to the observer's current position in the building.
- Management of the building materials properties and parameters based on a database structure.