


Event:

 <p>ENDORSED BY <b>ASHRAE</b></p>	<p>HEALTH in BUILDINGS <b>HYGEIA 2026</b> <i>where the medical &amp; engineering professions collaborate &amp; innovate</i></p>	 <p><b>ASHRAE</b> <b>TEE</b> Hellenic Chapter</p>
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May 27-29, 2026 - Island of KOS, Greece

<b>#</b>	<p><b>Chrysanthi Panagiotopoulou</b> Chemical Engineer, PhD, Msc</p>	
Title:	<p>Eurocore <b>Senior R&amp;I Consultant</b></p>	
email:	<p>chrysanthipanag@gmail.com</p>	
Presentation title:	<p><b>"Safe Electrification Pathways: Cross-Sectoral HSE Insights and Their Replication Potential in Healthcare"</b></p>	
<p>In all sectors, including healthcare, the drive toward electrification and decarbonization introduces new standards and technological demands, which in turn call for advanced, adaptive, and targeted Health, Safety and Environment (HSE) strategies. Microwave technologies in particular enable rapid, volumetric and energy efficient heating, offering a low carbon alternative to conventional steam or fuel based thermal processes in healthcare and industry. Their use in sterilization, waste treatment, and material processing demonstrates how dielectric heating can serve as a lower-emission alternative to fossil fuel-dependent methods, particularly when coupled with renewable energy sources or energy-efficient system designs. Findings from the HSE research on the use of microwaves in other sectors can greatly assist in the wider adoption of microwave-based technologies in healthcare, since the HSE Risks and Controls arising from the use of microwaves remain the same, regardless of the final application. The present study uses the case of EU-funded Metawave project, where microwaves are utilized as an alternative processing method in three energy-intensive scenarios (ceramics manufacturing, asphalt production, and aluminum processing), as a paradigm of the safe integration of microwave technologies into real-world contexts when supported by robust HSE frameworks. The challenge of ensuring safe work environments while adopting cutting-edge technologies is addressed by an innovative, flexible, and efficient methodological framework—AIM-Safe (Advanced Intelligent Methodology for Safety in innovation), developed specifically for addressing HSE in innovation. The findings from applying AIM-Safe indicate that the most significant occupational hazards include potential explosions and fires, electric shocks, and interference with medical devices. Across all investigated applications, the primary identified risks are microwave leakage and high-voltage exposure. Appropriate mitigation measures for these hazards are proposed within the AIM-Safe framework, ensuring safe and sustainable innovation.</p>		
Short CV:	<p>Dr. Chrysanthi Panagiotopoulou is a chemical engineer with an MSc in Materials Technology and a PhD in the Synthesis and Study of Properties of New Materials. For 15 years, she has been involved in research, managing more than 20 EU projects. For the last 3 years, she has been a Senior R&amp;I Consultant and Senior R&amp;I Project Manager at GEP Group and its subsidiary in Belgium, Eurocore, focusing on developing solutions to HSE issues arising from the implementation of novel and disruptive technologies in traditional industrial and other non-domestic environments.</p>	

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CV:

Dr. Chrysanthi Panagiotopoulou is a chemical engineer with a PhD and MSc in Materials. She has extensive research experience, having been a member of a research group at the National Technical University of Athens (NTUA) for 16 years. Her work involves developing innovative materials and production processes, creating energy-efficient methods, and designing and conducting techno-economic evaluations of new production techniques. She has participated in and managed over 25 EU-funded projects, providing overall technical management when needed. During this time, she also engaged in projects related to EU policy-making, social acceptance of industrial processes (Social License to Operate), capacity building, networking, and clustering activities. Concurrently, she collaborated with the Greek Army as a visiting lecturer at the Hellenic Army Academy, the Hellenic Air Force Academy, and the Engineer Officers' Technical School of the Hellenic Army. She has authored more than 20 peer-reviewed papers in scientific journals and conferences. For the last three years, she has been a Senior R&I Consultant and Senior R&I Project Manager at GEP Group and its subsidiary in Belgium, Eurocore. Her primary focus is on HSE issues related to the development and deployment of novel or disruptive technologies in the industrial and healthcare sectors.