

#	<p><b>Dr Heleni Pantelidou</b> Civil Engineer, PhD, CEng, MICE</p>	
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Presentation title:	<b>How could Cities Function within the Planet's Safe Operating Space</b>	
<p>We live on one planet, yet we consume 1.7 Earths' worth of resources; this is unsustainable; we are exceeding our planetary limits, changing the climate, degrading the environment, polluting land and water. Cities are experiencing the stresses from the environmental degradation and need to become resilient against them.</p> <p>The engineering community has contributed to the problem, creating a built environment that is out of balance with the capacity of the planet. We now have a big role to play in resolving these complex and interdependent problems and help cities return within a safe operating space.</p> <p>The presentation will explore the thresholds beyond which the earth cannot support a thriving human population. Climate change is one of the nine Planetary Boundaries that scientists use to define the stability of the planet. Climate, biodiversity, land use, fresh water, bio-geochemical flows, ocean acidification, ozone depletion, aerosols and novel entities are all important to remain within a safe operating space at global scale. Yet, three of them have already been breached. Cities are socio-economic systems that depend upon and influence all planetary boundaries in biggest concentrations. A city needs to establish a trading relationship with the planetary systems: restore and enhance the Natural elements that support the city's functions, while using them to maximise the human systems within.</p>		
Short CV:		
<p>Heleni is an Associate Director at Arup. Born and educated in Athens, she studied Civil Engineering at the NTUA before moving to London to specialise in Geotechnical Engineering.</p> <p>She is an experienced civil engineer, with an in-depth understanding of the impact on the natural environment and climate change. She works on identifying solutions that lead to the decarbonization of the built environment.</p>		

Event: **International Conference 2019 – Energy in Buildings**

Date: **Friday September 27, 2019**

Place: **Athens, Hellas**



CV:

Heleni is an Associate Director at Arup, leading a team of Infrastructure engineers in the London office. Born and educated in Athens, she studied Civil Engineering at the NTUA before moving to London to specialise in Geotechnical Engineering.

She has considerable experience in the design and problem-solving of a wide range of building and civil engineering projects. In parallel with her diverse engineering portfolio, Heleni developed an in-depth understanding of the impact that the built environment has had on the natural environment and particularly climate change. She is an enthusiastic promoter of Low Carbon Infrastructure, advancing and coordinating sustainable design and whole life carbon strategies. She combines her extensive engineering knowledge with her belief that the construction industry is key in decarbonizing the world that we live in. She believes that mastering resource efficiency while recognising interdependencies of infrastructure systems is key in reversing the negative impacts of engineering. She works with major infrastructure projects and clients to realise whole life value through design. She is the Regional Sustainability Skills Leader in Arup, providing a common sustainability framework across the built environment.

She has been extensively involved in research and development work, supervising academic research on infrastructure low carbon. More recently, she got involved in the application of Planetary Boundaries to city scale, recognizing that Climate Change is only one of the 9 boundaries that define the safe operating space within which we can continue to thrive.