



# GLOBAL ENGINEERING CONGRESS 22-26 OCTOBER

In association with



# Global Engineering Congress

Ban Ki-moon, Former UN Secretary General



"Be a global citizen. Act with passion and compassion. Help us make this world safer and more sustainable today and for the generations that will follow us. That is our moral responsibility."

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# Global Engineering Congress

Why is it happening?



- ICE 200
- WFEO 50<sup>th</sup> anniversary
- UN Sustainable Development Goals
- Turn knowledge into action
- ICE convening the world's organisations



# SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



<b>1</b> NO POVERTY 	<b>2</b> ZERO HUNGER 	<b>3</b> GOOD HEALTH AND WELL-BEING 	<b>4</b> QUALITY EDUCATION 	<b>5</b> GENDER EQUALITY 	<b>6</b> CLEAN WATER AND SANITATION 
<b>7</b> AFFORDABLE AND CLEAN ENERGY 	<b>8</b> DECENT WORK AND ECONOMIC GROWTH 	<b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE 	<b>10</b> REDUCED INEQUALITIES 	<b>11</b> SUSTAINABLE CITIES AND COMMUNITIES 	<b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION 
<b>13</b> CLIMATE ACTION 	<b>14</b> LIFE BELOW WATER 	<b>15</b> LIFE ON LAND 	<b>16</b> PEACE, JUSTICE AND STRONG INSTITUTIONS 	<b>17</b> PARTNERSHIPS FOR THE GOALS 	 <b>SUSTAINABLE DEVELOPMENT GOALS</b> In association with

# Global Engineering Congress

What's happening?



- 5 Day conference programme
- 90 Hours of content
- 100+ Global speakers
- 1000+ Global Delegates
- 150+ Countries represented

# Global Engineering Congress

## What's happening?

- Roundtable discussions and workshops
- Drinks receptions, gala and celebratory dinners
- Exhibition, networking and governmental engagement programme
- Post-Congress report + Infrastructure Sustainability Toolkit
- 10 year engineering roadmap to SDGs and associated indicators



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## Programme – Day one



Theme	Role of engineering in progressing the UN SDGs
Key speakers	<ul style="list-style-type: none"> <li>• Marlene Kanga: President, WFEO</li> <li>• Professor Lord Robert Mair, CBE, FRS, FICE, FREng: President, ICE</li> <li>• Dr. Flavia Schelgel Assistant: Director General, UNESCO</li> <li>• Susan Freeman-Greene: CEO, Engineers New Zealand</li> <li>• Catherine Yang: VP Artificial Intelligence Commercialisation, BAIDU</li> </ul>
Key Case studies/projects	<ul style="list-style-type: none"> <li>• Energy efficiency in Africa</li> <li>• Creating momentum on diversity and inclusion: a New Zealand experience Smart village in Papua New Guinea: Electricity, education, and entrepreneurship as entry points for achieving all 17 SDGs</li> </ul>
Objectives	<ul style="list-style-type: none"> <li>• Establish a global perspective and explore the scale of change possible via a coordinated plan</li> <li>• Agree parameters for change.</li> </ul>
Outcome	<ul style="list-style-type: none"> <li>• List of enablers/blockers</li> </ul>

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## Programme – Day two



Theme	Challenges and opportunities to address the SDGs
Key speakers	<ul style="list-style-type: none"><li>• Dame Anne Dowling: President, RAEng</li><li>• UN Science Advisory Council</li><li>• Blanca Jimenez: International Hydrology Programme Director, UNESCO</li><li>• Viktor Mayer Schonberger: Professor of Internet and Governance, Oxford Internet Institute</li></ul>
Key Case studies/projects	<ul style="list-style-type: none"><li>• Water strategy in Portugal/Spain</li><li>• ISO 37001 anti-bribery</li><li>• Hurricane resilient transport infrastructure in Puerto Rico</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Examine factors that have stalled progress against the SDGs to date, highlight regulatory and technical changes that offer new hope, and explore what is needed to move to forward.</li><li>• Define what is needed to remove barriers to change.</li></ul>
Outcome	<ul style="list-style-type: none"><li>• WFEO Engineering 2030 plan</li></ul>



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## Programme – Day three



Theme	Building sustainable economies and resilient communities
Key speakers	<ul style="list-style-type: none"><li>• Michèle Blom: DG, Netherlands Ministry of Infrastructure &amp; Environment</li><li>• Sir John Armitt: Chairman, National Infrastructure Commission</li><li>• Global Covenant of Mayors, 100 resilient cities</li></ul>
Key Case studies/projects	<ul style="list-style-type: none"><li>• Lessons learnt from Hurricane Sandy in New York</li><li>• Make Every Drop Count: How Australia transformed rainwater harvesting</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Delve into how climate resilience can be incentivised, funded and built into all stages of decision making - creating cleaner cities and services.</li></ul>
Outcome	<ul style="list-style-type: none"><li>• Infrastructure report card and modelling tool kit disseminated</li></ul>

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## Programme – Day four



Theme	Quantifying the societal impact of engineering and the influence of technology
Key speakers	<ul style="list-style-type: none"><li>• Robin Kemper: President, ASCE</li><li>• Susan Tighe: President, CSCE</li><li>• Cris Liban: Executive Officer, Environmental compliance and sustainability, LA Metro</li><li>• Chuck Hookham: CMS Energy, USA</li></ul>
Key Case studies/projects	<ul style="list-style-type: none"><li>• Rhode Island wind farm</li><li>• LA Metro</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Using case studies and research create guidance and information on how engineers can use technologies to deliver economically feasible and socially equitable projects.</li><li>• Establish a method to quantify social value</li></ul>
Outcome	<ul style="list-style-type: none"><li>• ICE-ASCE-CSCE statement</li></ul>

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## Programme – Day five



Theme	Driving Change – investment, education and governance
Key speakers	<ul style="list-style-type: none"> <li>• Hartwig Schaefer: VP Global Themes, World Bank</li> <li>• Guna Gunalan: VP, AECOM</li> <li>• Carol Haddock: Houston Public Works, City of Houston</li> <li>• Ben Ruby: Secretary General, Eurelectric</li> </ul>
Key Case studies/projects	<ul style="list-style-type: none"> <li>• Expansion project, Water purification plant Houston</li> <li>• UK State of Nation report 2018 launch</li> </ul>
Objectives	<ul style="list-style-type: none"> <li>• Explore links between engineering, education, governance and finance.</li> <li>• Create a vision for a balanced system that improves lives and offers economic growth.</li> </ul>
Outcome	<ul style="list-style-type: none"> <li>• PESTLE analysis of 5 SDGs, map connection of all 17 SDGs</li> </ul>

# Global Engineering Congress

## Why should delegates attend?



- Gain an understanding of global challenges and blockers
- Play your part in agreeing actions the global community needs to take
- Network with experts from engineering, government and the worldwide built environment
- Plan for changes affecting the profession – and your career
- Share your expertise on an international stage



# GLOBAL ENGINEERING CONGRESS

HOW CAN YOU HELP?