

**WFEO  
Standing Committee on Engineering and the Environment  
(WFEO-CEE)**

**Revised Strategic Plan  
2008-2011**

**October, 2010**

# **WFEO Committee on Engineering and the Environment (“WFEO - CEE”) Revised Strategic Plan 2008-2011**

**August 2010**

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## **1.0 WFEO Vision**

WFEO is the world wide leader of the engineering profession and cooperates with national and other international professional institutions in developing and applying engineering to the benefit of humanity.

## **1.1 WFEO Mission Statement**

WFEO encourages all of its international and national members to contribute to global efforts to establish a sustainable, equitable and peaceful world by providing an international perspective and enabling mechanisms:

- To provide information and leadership to the engineering profession on issues of concern to the public or the profession.
- To serve society and to be recognized, by national and international organisations and the public, as a respected and valuable source of advice and guidance on the policies, interests and concerns that relate engineering and technology to the human and natural environment.
- To make information on engineering available to the countries of the world and to facilitate communication between its member nations.
- To foster peace, socioeconomic security and sustainable development among all countries of the world, through the proper application of technology.
- To facilitate relationships between governments, business and people by contributing an engineering dimension to discussions on policies and investment.

## **2.0 Vision for WFEO - CEE**

The Committee on Engineering and the Environment enables WFEO and the global engineering profession to address the UN Millennium Development Goals through the development, application and enhanced understanding of environmentally sustainable engineering practices, the adaption of infrastructures to the impacts of a changing climate and mitigating risks of natural disasters.

### **2.1 Mission Statement for WFEO CEE**

In partnership with its national members and the WFEO standing committees, the WFEO-CEE shall develop and facilitate a thematic, results-oriented program over the next four years that:

- Increases the understanding of the global engineering profession and society of the global, regional, engineering and policy issues and solutions for the environmentally sustainable development of physical infrastructure and vital services;
- Gathers and disseminates information and provides recommendations on the adaptation of physical infrastructure to climate change and natural disaster risks;
- Develops and promulgates appropriate environmental and sustainable engineering practices in developing and developed countries;
- Increases the profile and participation of the WFEO in the UN Framework Convention for Climate Change (UNFCCC) related to climate change adaptation and infrastructure vulnerability to climate change impacts;
- Achieves recognition of the role and contributions of WFEO and the worldwide engineering profession towards the environment and sustainability elements of the UN Millennium Development Goals;
- Supports and raises WFEO's profile and participation in the work of UNESCO as it relates to engineering and the environment;
- Enables national members to pursue projects and programs in these areas.

## **3.0 Mandate of CEE**

The WFEO – CEE shall support the WFEO and the engineering profession worldwide by:

- Identifying and documenting national and international trends in engineering practice related to the environmental impacts of major engineering projects and infrastructure development in developing countries, climate change adaptation and disaster risk management.
- Encouraging and supporting CEE theme leaders and individual members as appropriate to organize international workshops and seminars related to environmental impacts of major engineering projects, infrastructure development in developing countries, adaptation of physical infrastructure to the impacts of a changing climate and disaster risk management.
- Encouraging and supporting countries and regions to organize and deliver local workshops and seminars related to environmental impacts of major engineering projects and infrastructure development in developing countries, adaptation of infrastructure to the impacts of a changing climate and disaster risk management.
- Promoting environmentally sustainable practices for engineering infrastructure.
- Proposing and drafting practice guidelines and policies related to engineering and the environment for the consideration and approval of the WFEO Executive Council and WFEO members.
- Participating as the WFEO representative in the UNFCCC Nairobi Work Program on Impacts, Vulnerabilities and Adaptation to Climate Change.
- Representing WFEO and the CEE as one of the delegates on the Scientific and Technological Major Group that participates on the UN Commission on Sustainable Development.

## 4.0 Operating Principles

The WFEO-CEE shall fulfill a facilitating role among its national members and the WFEO community. Where necessary, this role may include leadership and coordination among members and other committees of the WFEO.

The WFEO-CEE will conduct its business in a transparent, inclusive and consultative manner among its members as well as the other committees and structures within the WFEO by:

- Working with local organizers to organize projects and advance progress on the themes
- Inspiring and empowering our theme leaders and project participants, treating each other fairly and respectfully and fostering teamwork and collaboration
- Encouraging collaboration among committee members as well as other standing committees of the WFEO as appropriate
- Focusing on concrete and measurable deliverables and tracking progress

- Communicating in an open, forthright and timely manner
- Reporting to, and liaising with, the WFEO Executive Council

The WFEO–CEE Strategic Plan is considered a “living” document that will change as the work and progress of the committee evolves. It is anticipated that the Strategic Plan will be reviewed annually, and any adjustments will be reported in a timely manner to the WFEO Executive Council.

This Strategic Plan, and any subsequent versions, will be used by the committee to track progress and report to the WFEO Executive Council.

## **5.0 Membership and Organization**

The WFEO – CEE will be chaired by Mr. Darrel Danyluk, P.Eng., and a former President of Engineers Canada. Eng. B J Vasoya (India) will serve as Past-Chair while the Vice Chairs will be Eng. Salim Aoumn (Lebanon) and Eng. Spyros Papagrigoriou (Greece). The Secretariat for the committee will be provided by staff at Engineers Canada.

A list of confirmed members as of July 2010 is provided in Appendix A. There are two categories of membership, Full Member and Corresponding Member. A Full Member is an active participant on one or more projects or initiatives of the committee, and likely to attend the annual meetings of the Committee. A Corresponding Member is copied on such items as minutes, the newsletter, reports and so forth, participates in a supportive role but would not be leading a project.

Theme Leaders/Theme Chairs are Full Members of the CEE.

The Committee shall meet face-to-face annually and normally in conjunction with a major WFEO event (e.g. World Engineers Convention 2008, Brasilia, Brazil). It will also hold an additional mid-year teleconference each year scheduled to support the Chair in his role to represent the committee as a Vice-President of WFEO.

## 6.0 Themes

Theme	Leader	Objectives	Goals
1. Environmental Impacts of Major Engineering Projects for Summer and Winter Olympics	Engr. Spyros Papagrorgiou Managing Director ENVECO S.A. Vice-Chair WFEO-CEE Athens, Greece	To build on the experiences of recent large scale Olympic sporting events and communicate these experiences to future organizing committees.	To create awareness of opportunities and long term infrastructure legacies that are intrinsic to large scale Olympic sporting events.  To use WFEO member country linkages to disseminate the knowledge
2. Engineering and Climate Change Adaptation	Mr. Darrel Danyluk P.Eng Engineers Canada Chair WFEO-CEE Ottawa, Canada	To understand the relationship of a changing climate and existing infrastructures.  To develop tools for engineers to use in assessing the impacts.  To input the engineering perspective of adaptation into the UN process through the UNFCCC	To create a database for knowledge appropriate for developed and developing countries.  To influence the world community in policy development on matters related to infrastructure. The use of web based seminars (webinars) at national and international levels will be evaluated and reported on.

Theme	Leader	Objectives	Goals
3. Disaster Risk Management	Dr. ISHII Yumio Chair – Disaster Risk Management Task Group CTI Engineering Tokyo, Japan	<p>To introduce or recommend basic concepts, effective structural and non-structural measures as well as technologies for risk management of water-related and earthquake disasters.</p> <p>To promote the exchange of information and opinions on the above mentioned disaster risk management.</p> <p>Introducing knowledge and experiences to avoid disasters and promote sustainable and sound development</p>	<p><u>Water-Related Disaster Risk Management</u></p> <ol style="list-style-type: none"> <li>1. Review and document current situation</li> <li>2. Assess water-related disaster risks</li> <li>3. Risk management examples</li> <li>4. Develop booklets and/or guidelines</li> </ol> <p><u>Earthquake Disaster Risk Management</u></p> <ol style="list-style-type: none"> <li>1. Review and document current situation</li> <li>2. Assess earthquake disaster risks</li> <li>3. Risk management examples</li> <li>4. Develop booklets and/or guidelines</li> </ol> <p>To create best practice information</p> <p>Note: The task group for this theme became its own WFEO Committee on Disaster Risk Management as of November 2009.</p>

Theme	Leader	Objectives	Goals
3a Engineering and Agriculture	Dr. Sandra Fernandez, Consejo Profesional de Ingeniería Agronómica Presidente Buenos Aires, Argentina	<ul style="list-style-type: none"> <li>• To develop tools to promote and support food transport, storage, security and safety.</li> <li>• To encourage sustainable development by changing the conditions under which hunger develops and persists.</li> <li>• To foster cooperation between the engineering and agricultural communities, specifically, the Farming First organization.</li> <li>• To work with the WFEO UN initiative through CEE at the UNFCCC and UN-CSD.</li> <li>• </li> </ul>	<ul style="list-style-type: none"> <li>• To raise awareness of the extent of post-harvest losses due to pests and diseases.</li> <li>• To increase awareness of the benefits of maintaining genetic variability and traditional crop varieties.</li> <li>• To promote efficient water-use.</li> <li>• To promote biotechnology and its contribution to crops, food preservation and storage.</li> <li>• To evaluate the influence of climate change on agriculture.</li> <li>• To promote good agricultural practices (GAP) and good food practices (GFP).</li> <li>• To use WFEO member country linkages to disseminate the knowledge.</li> <li>• </li> </ul>



<b>Theme</b>	<b>Leader</b>	<b>Objectives</b>	<b>Goals</b>
4. Sustainable Development	Professor Paul Jowitt Vice-President Institute of Civil Engineers Edinburgh, United Kingdom	<p>To coordinate consistency with respect to sustainable development across WFEO-CEE.</p> <p>To influence the global community on engineering matters related to sustainability.</p> <p>To develop a Protocol and for Engineering for Sustainable Development and initiate a Sustainability Action Plan</p>	<p>To develop an internal sustainability assessment framework for the other WFEO-CEE activities. In the longer term, adapt this as an adjunct to WFEO's International Guidelines for Engineering for Sustainable Development</p> <p>Seek key opportunities to takes the WFEO-CEE messages to key stakeholders</p> <p>To identify and highlight opportunities to WFEO, and report back to WFE-CEE annually on the progress of these activities annually.</p> <p>To seek adoption of these by WFEO and member organisations and through them to advocate them to their members, governments and business communities.</p>
5. Environmental and Sustainable Engineering Practices for Engineers	Mr. David Lapp P.Eng Engineers Canada Ottawa, Canada	To develop an international guideline on the Environment and Sustainability for engineers	<p>To promote high standards of practice for engineers in the world.</p> <p>This document to be distributed to WFEO members for endorsement at the general assembly in 2009.</p>

Theme	Leader	Objectives	Goals
6. Infrastructure in Developing Countries	Cdr Arvind Poothia, IN (Retd) Director General, Engineerign Staff College of India Hyderabad, India	To work towards ensuring a proper infrastructural development in developing countries	<p>To provide guidance on planning and policy making.</p> <p>To identify opportunities for providing urban amenities in rural areas.</p> <p>To highlight transportation in urban areas.</p> <p>To disseminate knowledge between developed and developing countries and also highlight mechanisms for sharing knowledge amongst the latter.</p> <p>To develop mechanisms to attract financial investment in infrastructure.</p>