



1968 - 2018

**World Federation of Engineering Organizations
Fédération Mondiale des Organisations d'Ingénieurs**

ENGINEERING LEADERSHIP FOR SUSTAINABLE DEVELOPMENT

A HISTORY OF WFEO 1968-2018

UNE HISTOIRE DE LA FMOI 1968-2018

Editor: Dr. Marlene Kanga, AM

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Contents / Table des matières

Foreword UNESCO	6	<i>Les administrateurs de la Fédération mondiale des organisations d'ingénieurs</i>
Avant-propos de l'UNESCO	7	
Preface	8	Relationships with the United Nations
Préface	9	<i>Relations avec l'organisation des Nations unies</i>
The Idea for WFEO	10	WFEO Participation in Events at the United Nations and Its Agencies
<i>L'idée de la FMOI</i>	12	
Acknowledgements / Remerciements	14	<i>Participation de la FMOI à des événements à l'ONU et ses agences</i>
Governing Documents / Documents constitutifs	15	Relationships with UNESCO
Nations Represented at the First General Assembly, 4th March 1968	16	<i>Relations avec l'UNESCO</i>
<i>Pays représentés à la première Assemblée générale, le 4 mars 1968</i>		The Signing of Framework Agreement, Paris, April 2016
The Logo of the World Federation of Engineering Organizations	17	<i>Signature de accord-cadre, Paris, avril 2016</i>
<i>Le Logo de la Fédération mondiale des organisations d'ingénieurs</i>		The Paris Declaration
Membership of the World Federation of Engineering Organizations	18	<i>La déclaration de Paris</i>
<i>Membres de la Fédération mondiale des organisations d'ingénieurs</i>		The Paris Declaration: Advancing the UN Sustainable Development Goals through Engineering
National and Affiliated Members as of December 2018	19	<i>Déclaration de Paris: Atteindre les Objectifs de développement durable des Nations unies par l'ingénierie</i>
<i>Membres nationaux et affiliés en décembre 2018</i>		Collaboration with UNESCO
WFEO Executive Board and Executive Council	21	<i>Collaboration avec l'UNESCO</i>
<i>Bureau exécutif et Conseil d'administration de la FMOI</i>		The Global Engineering Congress 2018
Presidents of the World Federation of Engineering Organizations	22	<i>Le Congrès général de l'ingénierie 2018</i>
<i>Présidents de la Fédération mondiale des organisations d'ingénieurs</i>		The First UNESCO Engineering Report
The WFEO Secretariat	25	<i>Le premier rapport sur l'ingénierie de l'UNESCO</i>
<i>Le Secrétariat de la FMOI</i>		WFEO Contributors to the First UNESCO Engineering Report, 2010
The Administrators of the World Federation of Engineering Organizations	26	<i>Contributeurs de la FMOI au premier rapport sur l'ingénierie de l'UNESCO, 2010</i>
		The Second UNESCO Engineering Report
		<i>Le second rapport sur l'ingénierie de l'UNESCO</i>

WFEO Contributors to the Second UNESCO Engineering Report	47	WFEO Standing Technical Committees	86
<i>Contributeurs de la FMOI au deuxième Rapport sur l'ingénierie de l'UNESCO</i>		<i>Les Comités techniques permanents de la FMOI</i>	
WFEO General Assemblies and Executive Council Meetings	48	WFEO Committee on Engineering and the Environment	89
<i>Assemblées générales et Conseils d'administration de la FMOI</i>		<i>Le Comité Ingénierie et Environnement</i>	
General Assemblies and Executive Council Meetings	49	WFEO Committee on Education in Engineering	91
<i>Assemblées générales et réunions du Conseil d'administration</i>		<i>Le Comité Éducation en ingénierie</i>	
The Early Years	52	WFEO Committee on Information and Communication	93
<i>Les premières années</i>		<i>Le Comité Informations et communications</i>	
WFEO General Assemblies and Executive Council Meetings	54	WFEO Committee on Energy / <i>Le Comité Energie</i>	96
<i>Réunions d'Assemblées générales et du Conseil d'administration de la FMOI</i>		WFEO Committee on Engineering Capacity Building	100
WFEO Meetings and Events	61	<i>Le Comité Renforcement des capacités</i>	
<i>Événements et réunions de la FMOI</i>		WFEO Committee on Engineering for Innovative Technologies	101
WFEO Activities and Events with Associated Organizations	66	<i>Le Comité Ingénierie et technologies innovantes</i>	
<i>Activités de la FMOI et événements avec les organisations associées</i>		WFEO Committee on Anti-Corruption	103
World Engineers Convention (WEC)	69	<i>Le Comité Anti-corruption</i>	
<i>La Convention mondiale des ingénieurs (WEC)</i>		WFEO Committee on Women in Engineering	105
Declarations of the World Engineers Conventions	72	<i>Le Comité Femmes ingénierues</i>	
<i>Déclarations des Convention mondiale des ingénieurs</i>		WFEO Committee on Disaster Risk Management	109
WFEO and Africa	73	<i>Le Comité Gestion des risques de catastrophes</i>	110
<i>La FMOI et l'Afrique</i>		The Committee on Young Engineers/Future Leaders	113
WFEO and Small Island Developing States	77	<i>Le Comité Jeunes ingénieurs/Futurs leaders</i>	
<i>La FMOI et les Petits États insulaires en développement</i>		WFEO United Nations Relations Committee	115
WFEO Code of Ethics	79	<i>Le Comité des relations ONU-FMOI</i>	
<i>Le Code-type de déontologie de la FMOI</i>		WFEO Biennial Report	116
WFEO Awards / <i>Les prix de la FMOI</i>	81	<i>Le Rapport biennal de la FMOI</i>	
WFEO Award Winners	83	50 Years of Engineering Innovation	119
<i>lauréats des Prix de la FMOI</i>		<i>50 ans d'innovation en ingénierie</i>	

Foreword UNESCO



Since its inception in 1968 under the auspices of UNESCO, the World Federation of Engineering Organizations has embarked upon a remarkable journey, progressing hand-in-hand with astonishing global innovations in both information technology and communications. Such innovations have provided the groundwork for powerful new technologies and considerable developments in space travel, robotics and artificial intelligence, to name but a few.

Engineering is an essential part of our modern world. Over the last century, engineering and technology have transformed our societies beyond all expectations. For much of the world's population, life expectancy has never been so long, and we have never been so well-nourished, healthy and safe.

Despite this progress, it is still urgent that engineers further develop and implement solutions to meet global needs for clean water and sanitation, reliable and accessible energy, health, education, sustainable resources, resilient infrastructure and cities, and mitigation of climate change and loss of biodiversity.

Therefore, the collaborative platform of the World Federation of Engineering Organizations is as vital today as it has ever been. It defines and guides the role to be played by engineers worldwide in responding to global challenges, as set out in the 2030 Agenda for Sustainable Development.

The actions of the World Federation of Engineering Organizations can assist us in facing the enormous challenges of global warming and the erosion of biodiversity, which put our common future at grave risk. The creativity and innovations of engineers will be of the utmost value in the long-lasting and sustainable transformation of our societies. This is the *raison d'être* of Africa Engineering Week, developed by UNESCO and WFEO, of which the sixth edition will be held in Zambia in September.

Even after half a century of work and achievement, many challenges still lie ahead. However, I am confident that engineers worldwide will continue to apply their unique expertise to find sustainable, enduring and inclusive solutions to these challenges. It is for this reason that UNESCO looks forward to continuing and developing its strong, long-standing collaboration with the World Federation of Engineering Organizations for many years to come.

Ms. Audrey Azoulay
Director General
UNESCO

Avant-propos de l'UNESCO*



Depuis sa création en 1968 sous l'égide de l'UNESCO, la Fédération mondiale des organisations d'ingénieurs s'est engagée dans un remarquable parcours, tracé alors que survenaient de remarquables innovations dans les technologies de l'information et de la communication. Ces innovations ont jeté les bases de nouvelles technologies sensationnelles et de développements considérables, dans les domaines du spatial, de la robotique et de l'intelligence artificielle, pour n'en citer que quelques-uns.

L'ingénierie est une composante essentielle de notre monde moderne. Au cours du siècle dernier, avec la technologie, elle a transformé nos sociétés au-delà de toute attente. Pour une grande partie de la population mondiale, l'espérance de vie n'a jamais été aussi élevée et nous n'avons jamais été aussi bien nourris, en bonne santé et en sécurité.

Malgré ces progrès, il demeure urgent que les ingénieurs continuent d'élaborer et de mettre en œuvre des solutions pour répondre aux besoins mondiaux en matière d'eau potable et d'assainissement, d'énergie fiable et accessible, de santé, d'éducation, de ressources durables, de villes et d'infrastructures résilientes, d'atténuation du changement climatique et de la perte de biodiversité.

Pour ces raisons, la plateforme de collaboration qu'est la Fédération mondiale des organisations d'ingénieurs est plus vitale aujourd'hui que jamais. Elle définit et oriente le rôle que doivent jouer les ingénieurs du monde entier pour relever les défis globaux, tels que définis par l'Agenda 2030 pour le Développement durable.

Les actions de la Fédération mondiale des organisations d'ingénieurs peuvent nous aider à faire face aux énormes défis du réchauffement climatique et de l'érosion de la biodiversité, qui mettent gravement en péril notre avenir commun. Créativité et innovations des ingénieurs seront d'une valeur inestimable pour la transformation à long terme et soutenable de nos sociétés. C'est la raison d'être de la Semaine africaine de l'ingénierie, élaborée par l'UNESCO et la FMOI, dont la sixième édition se tiendra en Zambie en septembre.

Même après un demi-siècle de travail et de réussite, de nombreux défis restent à relever. Cependant, je suis persuadée que les ingénieurs du monde entier continueront d'offrir leur irremplaçable expertise pour trouver des solutions pérennes, soutenables et inclusives à ces défis. C'est pourquoi l'UNESCO se réjouit à la perspective de poursuivre et de développer sa collaboration de long terme avec la Fédération mondiale des organisations d'ingénieurs, pour encore bien des années.

Audrey Azoulay
Directrice générale de l'UNESCO

*Traduction FMOI

Preface



The World Federation of Engineering Organizations (WFEO) was established as a result of the foresight of engineering leaders from all the regions of the world who had a great desire and vision to establish a peak body that would be the international voice for engineering. More than 50 national and many regional engineering institutions attended the first meeting.

Since 1968, the federation has fulfilled its mission by engaging with the United Nations and its bodies and programs, especially UNESCO, UNIDO, UNEP, UNFCCC, the World Bank and the World Meteorological Organization, and other international agencies such as the OECD, among others, on important engineering issues.

From its first days, the federation was committed to three main goals – to ensure that the world has the engineers it needs through quality engineering education, to protect the environment and ensure sustainable development and to ensure that all engineers abide by a code of ethics. These goals remained key to the Organization over the past 50 years and have been the basis of its most important activities.

Most importantly, the World Federation of Engineering Organizations is committed to advancing the United Nations Sustainable Development Goals through engineering. This is consistent with the early commitment to sustainable development when the organization was first established. The Paris Declaration signed by UNESCO and WFEO in March 2018, as part of the organization's 50th anniversary celebrations, recognised the important role of engineers and engineering and stated the commitment of the world's engineers to sustainable development. This is the area where the international network of WFEO can have the greatest impact.

This document provides an overview of the history of the development of the World Federation of Engineering Organizations and the work that has been done by many volunteer engineers from around the world on our Boards, Executive Council, technical committees and working groups. This document is an acknowledgment and a mark of appreciation to every one of the contributors over the years. These engineers are the unsung heroes who have made an enormous contribution to engineering and to the well-being of the world.

It has been an honour and a pleasure to be President of the World Federation of Engineering Organizations during 2018-2019, to lead the celebrations of the federation's 50th anniversary and to bring together the story of the federation for the historical record. The first 50 years have been eventful in terms of the innovations that the world has seen and in the development of the federation. I am sure that the future will be no less exciting. The World Federation of Engineering Organizations will continue to grow and make its important contributions for a better world.

Dr Marlene Kanga AM
WFEO President

Préface



La Fédération mondiale des organisations d'ingénieurs a été créée grâce à la clairvoyance des représentants du monde de l'ingénierie dans toutes les régions du monde, qui avaient le désir et la vision d'établir un organisme de référence pour incarner la voix internationale de l'ingénierie. Plus de 50 institutions nationales et de nombreuses institutions régionales d'ingénieurs ont participé à la première réunion.

Depuis 1968, la Fédération s'est acquittée de sa mission en collaborant avec les Nations unies et ses organes et programmes, en particulier l'UNESCO, l'ONUDI, le PNUE, la CCNUCC, la Banque mondiale, l'Organisation météorologique mondiale, et d'autres organismes internationaux tels que l'OCDE, sur d'importants enjeux techniques.

Dès ses premiers jours, la Fédération s'est engagée à atteindre trois objectifs principaux : s'assurer que le monde dispose des ingénieurs dont il a besoin grâce à une formation de qualité, protéger l'environnement et assurer un développement durable, et veiller à ce que tous les ingénieurs respectent un code de déontologie. Ces objectifs sont restés au cœur des préoccupations de la Fédération au cours des 50 dernières années et ont été à la base de ses principales activités.

Plus important encore, la Fédération mondiale des organisations d'ingénieurs s'est engagée à promouvoir les objectifs des Nations unies en matière de développement durable grâce à l'ingénierie. Cela est en cohérence avec l'engagement pris très tôt en faveur du développement durable à la création de l'organisation. La Déclaration de Paris signée par l'UNESCO et la FMOI en mars 2018, dans le cadre des célébrations du 50e anniversaire de la Fédération, reconnaît le rôle important des ingénieurs et de l'ingénierie, et affirme l'engagement des ingénieurs du monde entier en faveur du développement durable. C'est dans ce domaine que le réseau international de la FMOI peut avoir le plus grand impact.

Ce document donne un aperçu de l'histoire du développement de la Fédération mondiale des organisations d'ingénieurs et du travail accompli par de nombreux ingénieurs bénévoles du monde entier au sein de notre Bureau, de notre Conseil d'administration, de nos comités techniques et de nos groupes de travail. Il exprime une reconnaissance et une marque d'appréciation pour chacun des collaborateurs qui nous ont accompagnés au fil des ans. Ces ingénieurs sont des héros méconnus qui ont fait une contribution considérable à l'ingénierie, et au bien-être du monde.

Ce fut un honneur et un plaisir d'être présidente de la Fédération mondiale des organisations d'ingénieurs en 2018 et en 2019, de conduire les célébrations du 50e anniversaire de la Fédération et de rassembler l'histoire de la Fédération afin d'en préserver la mémoire. Les 50 premières années ont été riches en innovations dans le monde et en événements dans la Fédération. Je suis sûre que l'avenir ne sera pas moins passionnant. La Fédération mondiale des organisations d'ingénieurs continuera de croître et d'apporter sa contribution importante à un monde meilleur.

Dr Marlene Kanga AM
WFEO President

The Idea for WFEO

The idea of a world organization of engineers was first suggested in 1921 by Dr A.D. Flinn, Director of the Foundation of Engineers (USA). A plan for a world federation of engineers was presented by Dr Stan Spacek of Czechoslovakia at the World Congress of Engineers in Tokyo in 1929.

At the General Assembly of the Conference of Engineering Societies of Western Europe and the United States of America (EUSEC) in 1948, the idea of a world federation of engineers was discussed again. It was considered that a world organization was needed to exchange on the issue of engineering education and training of engineers, codes of conduct and administrative cooperation. There were continental organizations in existence including the Pan American Federation of Engineering Societies (UPADI), which represented the Americas and which at the time had 23 national members, the European Federation of National Engineering Associations (FEANI), which represented Europe and had 16 members and the Commonwealth Engineers Council (CEC) which had 17 members. EUSEC had 26 members representing 19 countries. However, there was no global organization that represented all continents and regions of the world.

In 1965, at the General Assembly of EUSEC, an Advisory Committee was established to review the feasibility of a world federation of engineering organizations. Dr William Wisely, President EUSEC, was appointed Chair of the Advisory Committee. Following discussions with Dr Dino Zanobetti, Director of the Education Division of UNESCO, a meeting was held at

UNESCO in Paris on 12-15 April 1966 to discuss the proposed organization.

The meeting was attended by representatives of the American Society of Civil Engineers (ASCE), FEANI, UPADI, CEC, the Federation of Arab Engineers, French Civil engineers, Polish Federation of Engineers, representation of national engineering institutions of Italy, France, U.K., the Federation of German Technical Associations, the Swedish Association of Engineers, the Czech Association for Science and Technology, which represented also Bulgaria and East Germany, the Hungarian Federation of Technical Associations and Scientists, the Association of Switzerland Engineers and Architects, EUSEC, the Institute Royal Engineers of the Netherlands as well as a representative of the Soviet Union (USSR).

The meeting agreed unanimously to extend the existing EUSEC to a new global organization and to draft a constitution. The new organization was to have a similar structure and function to EUSEC, include national and regional organizations and have a close liaison with UNESCO.

One of the proposals was to name the new organization "ICEO" (International Council of Engineering Organizations) but the agreed name became World Federation of Engineering Organizations (WFEO).

The First General Assembly

The inaugural meeting was called "International Conference of Organizations of Engineers", was held from 4 to 7 March 1968 and was effectively the

first General Assembly of the World Federation of Engineering Organizations. The UNESCO Director General and the Executive Director of UNIDO were respectively represented by Dr. A. Schoeb and Dr. A.A. Afifi, who committed to collaborative projects with the new organization. UNESCO also issued a press release on the formation of the new organization.

The members that were present at the first meeting included representatives of the Federation of European Engineering Institutions (FEANI), the Commonwealth Engineers Council (CEC), the Pan American Federation of Engineering Societies (UPADI), and the national professional engineering institutions from Switzerland, France, India, Poland, Bulgaria and the United States, among others. The first Constitution of the Federation was adopted during the meeting, along with Rules of Procedures.

An Executive Committee for the management of the organization was elected by the General Assembly and consisted of Dr. Eric Choisy, Switzerland (President), Vice President R. Gibrat, France, Members: K.F. Antia (India), G. Clogenson (FEANI), G.F. Gainsborough (CEC), A. Gojcowicz (Poland), Prof. V. Poevsky (Bulgaria), M. Skar (Federation of Arab Engineers FAE), C.R. Vegh Garzon (UPADI), W.H. Wisely (USA). Dr G.F. Gainsborough (U.K.) was elected Secretary General.

The priorities for the new organization were to develop programmes of work on qualifications and training of professional engineers and technicians, the promotion of a global system of dissemination of research for information in the field of engineering, the development of a global code of conduct for engineers, enhancing the role

of professional associations of engineers in public affairs and the role of engineers in providing assistance to developing countries.

Looking ahead

The World Federation of Engineering Organizations (WFEO) was established with great vision by significant leaders in engineering at a time of accelerating industrial growth. There is much related to the growth of the organization that is not recorded here. Many individuals have volunteered their time and expertise to contribute to the organization and its objectives. The organization owes these individuals a debt of gratitude. The continued existence of WFEO as a focal point for discussion on important issues relating to engineering, despite many political, economic and financial upheavals around the world, is a mark of the success of the organization and its achievements.

L'idée de la FMOI

L'idée d'une organisation mondiale d'ingénieurs a été suggérée pour la première fois en 1921 par A.D. Flinn, directeur de la Fondation des ingénieurs (USA). Stan Spacek, un tchécoslovaque, avait ensuite présenté un projet pour une fédération mondiale d'ingénieurs au Congrès mondial des ingénieurs à Tokyo en 1929.

Lors de l'Assemblée générale de la Conférence des ingénieurs d'Europe de l'ouest et des Etats-Unis (EUSEC) en 1948, l'idée d'une fédération mondiale d'ingénieurs a de nouveau été discutée. Il a été établi qu'une organisation mondiale était nécessaire pour échanger sur la formation des ingénieurs, les codes de conduite et la coopération administrative. Il existait des organisations continentales, dont l'Union panaméricaine des associations d'Ingénieurs (UPADI), qui comptait à l'époque 23 membres nationaux, la Fédération européenne d'associations nationales d'ingénieurs (FEANI), qui comptait 16 membres, et le Commonwealth Engineers Council (CEC) qui comptait 17 membres. L'EUSEC comptait 26 membres représentant 19 pays. Cependant, il n'existe pas d'organisation mondiale représentant tous les continents et toutes les régions du monde.

En 1965, lors de l'Assemblée générale de l'EUSEC, un Comité consultatif a été créé pour examiner la faisabilité d'une fédération mondiale des organisations d'ingénieurs. William Wisely, président d'EUSEC, a été nommé président du comité consultatif. A la suite de discussions avec M. Dino Zanobetti, Directeur de la Division de l'éducation de l'UNESCO, une réunion s'est tenue à l'UNESCO du 12 au 15 avril 1966 pour examiner

l'organisation proposée.

Ont participé à la réunion des représentants de la Société Américaine des ingénieurs civils (ASCE), de la FEANI, de l'UPADI, du CEC, de la Fédération des ingénieurs arabes, des ingénieurs civils français et polonais, des institutions nationales d'ingénierie italienne, française, britannique, la Fédération des associations techniques allemandes, l'Association suédoise des ingénieurs, l'Association tchèque pour la science et la technologie, qui représentait également la Bulgarie et l'Allemagne de l'Est, la Fédération hongroise des associations techniques et scientifiques, l'Association suisse des ingénieurs et architectes, l'EUSEC, l'Institut royal des ingénieurs des Pays-Bas ainsi qu'un représentant de l'URSS.

La réunion aboutit à la décision unanime d'étendre l'EUSEC à une nouvelle organisation mondiale et de rédiger une constitution. La nouvelle organisation devait avoir une structure et une fonction similaires à celles de l'EUSEC, inclure des organisations nationales et régionales et entretenir une liaison étroite avec l'UNESCO.

L'une des propositions consistait à nommer la nouvelle organisation « ICEO » (International Council of Engineering Organisations), mais le nom retenu fut World Federation of Engineering Organisations (WFEO), en français Fédération Mondiale des Organisations d'Ingénieurs (FMOI).

La première Assemblée générale

La réunion inaugurale fut appelée « conférence internationale des organisations d'ingénieurs » et

eut lieu du 4 au 7 mars 1968 : ce fut de fait la première Assemblée générale de la Fédération. Le Directeur général de l'UNESCO et le Directeur exécutif de l'ONUDI représentés respectivement par Dr. A. Schoeb et Dr. A.A. Afifi, étaient présents et sont engagés sur des projets de collaboration au sein de la fédération. L'UNESCO a également publié un communiqué de presse sur la création de la nouvelle organisation.

Parmi les membres présents à la première réunion figuraient des représentants de la Fédération Européenne d'Associations Nationales d'Ingénieurs (FEANI), du Conseil des ingénieurs du Commonwealth (CEC), de l'Union Panaméricaine des Associations d'Ingénieurs (UPADI), et des institutions nationales professionnelles d'ingénieurs de Suisse, France, Inde, Pologne, Bulgarie et Etats-Unis, entre autres. Les premiers statuts de la Fédération furent adoptés lors de cette réunion, ainsi qu'un règlement intérieur.

Un comité exécutif pour la gestion de l'organisation a été élu par l'Assemblée générale et se composait de : Eric Choisy, (Suisse, président), R. Gibrat (France, vice-président) et des membres suivants : K.F. Antia (Inde), G. Clogenson (FEANI), G.F. Gainsborough (CEC), A. Gojcowicz (Pologne), M. Skar (Fédération des ingénieurs arabes), Prof. V. Poevsky (Bulgarie), C.R. Vegh Garzon (UPADI), W.H. Wisely (USA). Le Dr. G.F. Gainsborough (Royaume-Uni) a été élu Secrétaire général.

Les priorités de la nouvelle organisation étaient d'élaborer des programmes de travail sur les compétences et la formation des ingénieurs et techniciens, la promotion d'un système global de diffusion de l'information dans le domaine de l'ingénierie, la rédaction d'un code international

de bonne pratique pour les ingénieurs, en renforçant le rôle des associations professionnelles d'ingénieurs dans les affaires publiques, et celui des ingénieurs dans l'assistance aux pays en développement.

Vers le futur

La Fédération mondiale des organisations d'ingénieurs (FMOI) a été créée grâce à une vision forte proposée par les chefs de file du monde de l'ingénierie, dans un contexte d'accélération de la croissance industrielle. De nombreux éléments attestant du développement de l'organisation ne figurent pas ici. Beaucoup de personnes ont offert leur temps et leur expertise pour contribuer à l'organisation et à ses objectifs. La Fédération a une dette envers ces personnes. La continuité de la FMOI comme organisation de référence pour la discussion sur des questions importantes d'ingénierie, malgré de nombreux bouleversements politiques, économiques et financiers dans le monde, est une marque de la réussite de l'organisation.

Acknowledgements

The material for this history was compiled from several sources and oral histories from current and previous WFEO leaders including oral history from Past WFEO President Marwan Abdelhamid, who has been involved with the organization since 1978, and the personal history recorded by Past WFEO President Dato Lee Yee Cheong, photographs from Past Presidents Ms. Maria Jesus Prieto Laffargue, Mr. Barry Gear and President Dr Marlene Kanga, the WFEO Biennial reports and the important Declarations made at the various WFEO conferences and World Engineers Conventions, other historical and archived documents from UNESCO, WFEO Secretariat, former WFEO Secretariat locations at the Institution of Electrical Engineers (IET UK) and the Institution of Civil Engineers UK. The members of WFEO acknowledge the support and contribution of these individuals and organizations. WFEO President Dr Marlene Kanga and the WFEO Secretariat prepared the text and translation and edited this document. The document has been designed by Ms. Diane Darby, USA.

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Les documents ci-après ont été compilés à partir de plusieurs sources, des récits oraux de dirigeants actuels et passés de la FMOI, parmi lesquels Marwan Abdelhamid, ancien président, impliqué dans l'organisation depuis 1978, et l'histoire personnelle enregistrée par Dato Lee Yee Cheong, ancien président également ; des photographies fournies par les anciens présidents, Maria Jesus Prieto Laffargue, Barry Gear et de la présidente actuelle Marlene Kanga ; les rapports biennaux de la FMOI et les déclarations importantes faites lors des diverses conférences de la FMOI et des Conventions mondiales des ingénieurs (WEC), d'autres documents historiques provenant des archives de l'UNESCO, du secrétariat de la FMOI, d'anciens locaux du secrétariat de la FMOI à l'Institution of Electrical Engineers et l'Institution of Civil Engineers (Royaume-Uni). Les membres de la Fédération expriment leurs remerciements pour le soutien et la contribution de ces personnes et organisations.

La Présidente de la FMOI, Marlène Kanga, et le Secrétariat de la FMOI ont préparé le texte, la traduction et l'édition de ce document. Le document a été conçu par Mme Diane Darby, USA.

Governing Documents

The WFEO governing documents are the Constitution and Rules of Procedures.

The first Constitution was approved in 1968 and was amended for the first time at the General Assembly in 1975. The governing documents were developed further during the 1980s. The most recent revision to the Constitution was in 2012 and to the Rules of Procedures in October 2018.



Record of First General Assembly 4-7 March 1968

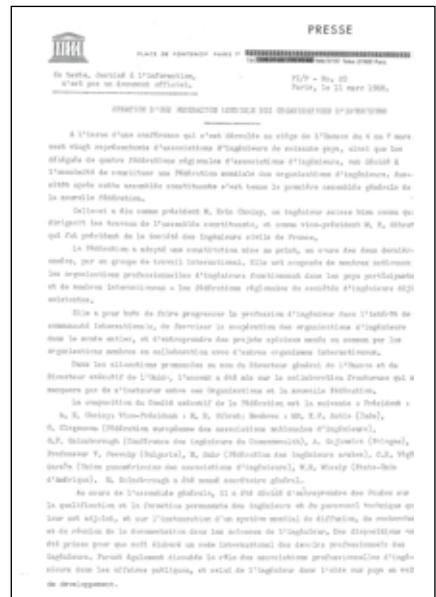


First Constitution 1968

Documents constitutifs

Les documents légaux de référence de la FMOI sont les Statuts et le Règlement intérieur.

Les premiers Statuts ont été approuvés en 1968 et ont été modifiés pour la première fois à l'Assemblée générale de 1975. Les Statuts ont été développés durant les années 1980. La dernière révision des Statuts de la Constitution a eu lieu en 2012, et celle du Règlement intérieur a eu lieu en octobre 2018.



Press Release about the
creation of WFEO

Nations Represented at the First General Assembly, 4th March 1968 / *Pays représentés à la première Assemblée générale, le 4 mars 1968*

Argentina	German Democratic Republic	Poland
Australia	Greece	Portugal
Austria	Guyana	Rhodesia
Barbados	Hungary	Romania
Belgium	India	Senegal
Brazil	Iraq	South Africa
Bulgaria	Republic of Ireland	Sudan
Canada	Israel	Sweden
Ceylon	Italy	Switzerland
Republic of China	Jordan	Syria
Cyprus	Kuwait	Trinidad and Tobago
Czechoslovakia	Lebanon	Turkey
Denmark	Luxembourg	United Arab
Dominican Republic	Malaysia	Republic
East Africa	Malta	United Kingdom
Ecuador	Mexico	United States
Ethiopia	Monaco	of America
Federal Republic of Germany	Netherlands	Uruguay
Finland	New Zealand	Venezuela
France	Norway	Yugoslavia
Gabon	Pakistan	

Commonwealth Engineers Council (CEC)

Conference of Engineering Societies of Western Europe and the United States of America (EUSEC)

European Federation of National Engineering Associations (FEANI)

Pan American Federation of Engineering Societies (UPADI)

Federation of Arab Engineers (FAE)

The Logo of the World Federation of Engineering Organizations

The logo, representing the tree of knowledge was established in 1968 and except for a modification in colour, has been left unchanged for the past 50 years. It remains an important representation of the organization that is recognised throughout the world.

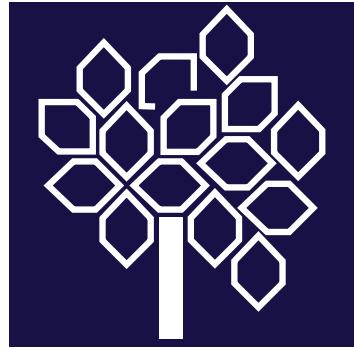


WFEO FMOI

First WFEO Logo 1968

The first logo was green, showing the emphasis of the federation on concerns relating to the environment and to sustainable development. The logo later changed to a deep blue.

In 2018, a new logo with the colours of the Sustainable Development Goals was created, to demonstrate the strategic focus on the UN Sustainable Development Goals.



WFEO / FMOI

Current WFEO Logo

Le Logo de la Fédération

Mondiale des organisations d'ingénieurs

Le logo, représentant l'arbre de la connaissance, a été créé en 1968 et, à l'exception d'une modification de couleur, est resté inchangé depuis 50 ans. Il demeure un emblème important de l'organisation et participe de sa reconnaissance dans le monde.

Le premier logo était vert, montrant l'accent mis par la fédération sur les préoccupations liées à l'environnement et au développement durable. Le logo est ensuite passé au bleu foncé.

En 2018, un nouveau logo aux couleurs des Objectifs de développement durable a été créé afin de démontrer le orientation stratégique sur les Objectifs de développement durable de l'ONU.

WFEO Logo
incorporating
the commitment
to the UN
Sustainable
Development
Goals



WFEO 50th Anniversary Logo



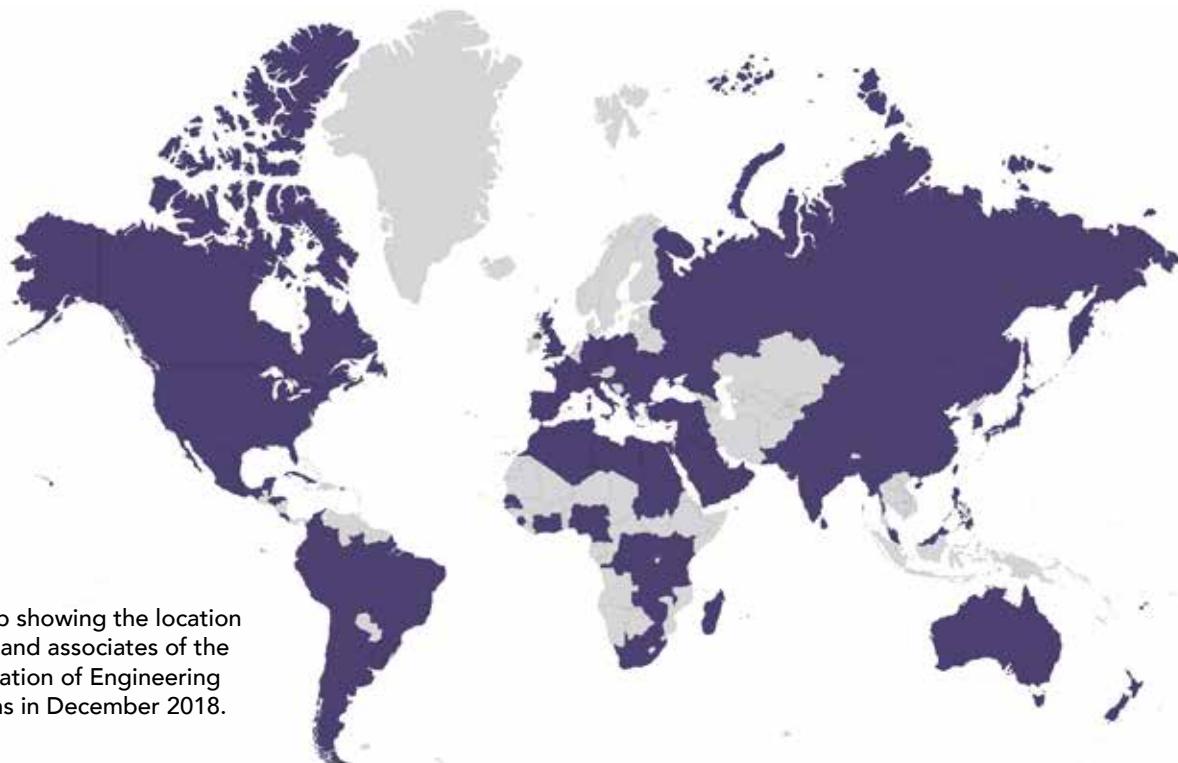
The WFEO 50th
Anniversary Pin
was developed for
our celebrations in
2018

Membership of the World Federation of Engineering Organizations

The federation grew from the initial membership of 53 national and 4 international members in 1968 over the years. New members were added through an application and approval process that included a vote by a majority of the members. There were 73 members in 1977 and 85 members in 1984, representing 12 million engineers. This has grown to approximately 100 members in 2018, representing 30 million engineers.

Membres de la Fédération mondiale des organisations d'ingénieurs

La fédération, partant d'une base de 53 membres nationaux et 4 membres internationaux en 1968, s'est étendue au fil des ans. L'ajout de nouveaux membres s'est fait au moyen d'un processus de candidature et d'approbation comprenant un vote à la majorité des membres. Elle comptait 73 membres en 1977 et 85 en 1984, représentant 12 millions d'ingénieurs. Ce nombre est passé à environ 100 membres en 2018, représentant 30 millions d'ingénieurs.



Member map showing the location of members and associates of the World Federation of Engineering Organizations in December 2018.

National and Affiliated Members as of December 2018 / Membres nationaux et affiliés en décembre 2018

Algeria	Iraq	Puerto Rico
Argentina	Italy	Qatar
Australia	Ivory Coast	Romania
Bahrain	Japan	Russia
Bangladesh	Jordan	Rwanda
Belize	Kenya	Saudi Arabia
Bolivia	Korea	Senegal
Brazil	Kuwait	Serbia
Bulgaria	Lebanon	Sierra Leone
Cameroon	Libya	Singapore
Canada	Madagascar	Slovakia
Chile	Malawi	Slovenia
China	Malaysia	South Africa
Chinese Taipei	Malta	Spain
Colombia	Mauritius	Sri Lanka
Costa Rica	Mexico	Sudan
Croatia	Moldavia	Switzerland
Cuba	Mongolia	Syria
Cyprus	Montenegro	Tanzania
Czech Republic	Morocco	The Philippines
Democratic Rep. of Congo	Myanmar	Tunisia
Ecuador	Nepal	Turkey
Egypt	New Zealand	Uganda
Fiji Islands	Nigeria	Ukraine
France	North Macedonia	United Arab Emirates
Ghana	Oman	United Kingdom
Greece	Pakistan	Uruguay
Honduras	Palestine	USA
Hong Kong, China	Peru	Yemen
Hungary	Poland	Zambia
India	Portugal	Zimbabwe

International Members / Membres internationaux

Commonwealth Engineers Council (CEC)
Engineering Association of Mediterranean Countries (EAMC)
Federation of Arab Engineers (FAE)
Federation of African Engineering Organizations (FAEO)
Fédération Européenne d'Associations Nationales d'Ingénieurs (FEANI)
Federation of Engineering Institutions of Asia and the Pacific (FEIAP)
Federation of Engineering Institutions of South and Central Asia (FEISCA)
Pan American Federation of Engineering Societies (UPADI)
Union of Scientific and Engineering Associations (USEA)
World Council of Civil Engineers (WCCE)

Sponsor Associates / Associés mécènes

Consolidated Contractors Company (C.C.C)
Khatib & Alami

Associates / Associés

Archirodon NV
DMT Society for Teaching and Education (DMT-LB)
European Council of Engineers Chambers (ECEC)
Federal Council of Engineering, Architecture & Agronomics (CONFEA)
Global Chinese Power & Energy Society (GCPES)
Gulf Engineering Union (GEU)
Japan Federation of Engineering Societies (JFES)
Junta Central de los Consejos Profesionales de Agrimensura,
Arquitectura e Ingenieria (JUNTA CENTRAL)
Myanmar Engineering Society (MES)
South African Institution of Civil Engineering (SAICE)
WomEng

WFEO Executive Board and Executive Council

The first Constitution established an Executive Committee for the management of the organization. The Executive Committee was re-named the Executive Council and the structure and membership was reviewed over the years. The most recent change was in 2011 when the General Assembly modified the structure of the Executive Council to a total of 30 comprising a 6-member Executive Board, 8 national member representatives, 6 international member representatives and the chairs of the standing technical committees.

The Executive Board comprises the President, President-elect, Past-president, two executive vice-presidents and the Treasurer of the Federation.

The President of WFEO is elected by the General Assembly. Initially terms were for 8 years and were subsequently reduced to four years and is now two years. Once elected, the president has a two-years term as president-elect, then a two-year term as president and finally a two-year term as past president.

Bureau exécutif et Conseil d'administration la FMOI

La première Constitution a créé un Comité exécutif pour la gestion de l'organisation.

Le Comité exécutif a été rebaptisé Conseil d'administration et la structure et la composition revues au fil des ans. La modification la plus récente fut effectuée en 2011 quand l'Assemblée générale a modifié la structure du Conseil d'administration, fixant sa composition à 30 membres : les 6 membres du Bureau, 8 représentants des membres nationaux, 6 représentants des membres internationaux et les présidents de chaque comité technique permanent.

Le Bureau exécutif est composé du Président, du Président-élu, de l'Ancien président, de deux vice-présidents exécutifs, et du Trésorier de la Fédération.

Le président de la FMOI est élu par l'Assemblée générale. Initialement les mandats étaient de 8 ans et ont été par la suite réduits à quatre ans et à deux ans maintenant. Une fois élu, le président effectue un premier mandat de deux ans en tant que président élu, puis un mandat de deux ans en tant que président, et enfin un mandat de deux ans comme ancien président.

Presidents of the World Federation of Engineering Organizations /

Présidents de la Fédération mondiale des organisations d'ingénieurs



Eric Choisy, Switzerland,
1st President (1968-1975)
(28.01.1897 to 3.09.1995),
Electrical engineer graduated
from the school of engineering
of the University of Lausanne,
Chairman of the Board of Directors
of the Geneva Tram Company and President of the
Swiss Association for Atomic Energy.



William (Bud) Carroll, USA,
President (1991-1995) civil
engineer; Chairman and Chief
Executive Officer of Montgomery-
Watson, Pasadena, CA which
became MWH Global in 2001;
President of ASCE 1987.



Sadok Ben Jemaa, Tunisia,
2nd President (1975-1987)
(22.07.1932 to 18.11.2011), Civil
Engineer graduated from the
Sorbonne, Paris; CEO of major
companies in Tunisia; founder of
Bank of the South; National Union
of Tunisian Engineers (President 1970-1977 and
1979-1990); Founder of the Council of the Order of
Engineers 1981; President (1981-1989); President
Union of Arab Engineers; Member of UN Advisory
Council for Science & Technology (1980-1987).



Conrado Ernesto Bauer,
Argentina, President (1995-1999),
a civil hydraulic engineer from
Argentina who held the position
of Minister of Social Welfare of his
country from 1968 to 1969 and
the position of Minister of Public
Works and Services from 1982 to 1983. He was a
member of the Academia Nacional de Ingenieros
de la República Argentina.



Prof Aleksandr J. Ishlinsky,
Russia, President (1987-1991),
(06.08.1913 to 07.02.2003) Founder
and Director of the Institute for
Problems in Mechanics, Russian
Academy of Sciences 1965-1990,
Chairman USSR Union of Scientific
and Engineering Societies, Deputy to the Supreme
Soviet of the USSR.



Jose Medem Sanjuan,
Spain, President (1999-2003),
(13.08.1927 to 27.01.2015),
Professor Emeritus of Civil
Engineering at the Polytechnic
of Madrid, Founding President
of World Council of Civil
Engineers, involvement in engineering institutions
in Spain, European Council of Civil Engineers,
UPADI, Member of Advisory Council of Global
Infrastructure Anti-Corruption Centre, Founder of
WFEO Committee for Anti-Corruption.

Presidents of the World Federation of Engineering Organizations /

Présidents de la Fédération mondiale des organisations d'ingénieurs



Dato Lee Yee Cheong,
Malaysia, President (2003-2005),
Electrical Engineer, Founder
and CEO Tenaga Ewbank Reece
Consulting, Past President of the
Institution of Engineers Malaysia,
Commonwealth Engineers

Council, Board Director and Government advisor
of science and engineering issues, member of
Board of Engineers Malaysia, member of the UN
Broadband Commission and other consultative
bodies related to the UN.



Barry Gear, Australia,
President (2007-2009), electrical
engineer, Past President of
Engineers Australia in 1997-1998,
member WFEO Engineering
Education Committee, driving
the recognition of qualifications
internationally.



Kamel Ayadi, Tunisia, President
(2005-2007), Founding Chair of
the WFEO Committee for Anti-
Corruption, Past President of
the Tunisian Order of Engineers.
He has served as a Secretary of
State in the Tunisian government

from 2004 to 2006 and as President of the
Tunisian National Regulatory Authority of
Telecommunications from 2001 to 2004. Minister
of Public Service, Governance in 2016, President
of the High Administrative and Financial Control
Committee with the rank of Minister, 2017
onwards.



Maria Laffargue, Spain,
President (2009-2011),
telecommunications engineer,
first woman to be President of
WFEO. She is a Past President
of the Institute of Engineering
of Spain (2000-2004), former
Director General of SISTELCOM Consortium,
SA, and director of the Instituto Nacional de
Meteorología, an Agency of the Spanish Ministry
for the Environment.



Adel Al Kharafi , Kuwait,
President (2011-2013), State
Minister for National Assembly
Affairs since 2014, Director of
M.A. Kharafi and Sons, a global
conglomerate of companies in
a wide range of engineering
sectors based in Kuwait.

Presidents of the World Federation of Engineering Organizations /

Présidents de la Fédération mondiale des organisations d'ingénieurs



Marwan Abdelhamid, Palestine,

President (2013-2015), civil engineer; General Secretary of the General Union of Palestinian Engineers (GUPE) in Palestine; President, Federation of Arab Engineers 1987-1989. He was Advisor to the Algerian Minister of Housing, Member of the Council of Arab Ministers representing Palestine, permanent representative of Palestine in the United Nations Organization for Human Settlements, Technical Advisor to late President Arafat, Deputy Minister of Housing in the Palestinian Authority, Ambassador of Palestine to Greece, Technical Advisor to President Abbas, and President of Palestine Mortgage and Housing Corporation.



Marlene Kanga, Australia,

President (2017-2019); chemical engineer, specialising in process safety for hazardous industries; National President Engineers Australia (2013); founding member of the WFEO Women in Engineering Committee and the WFEO Committee for Disaster Risk Management; Board Member Innovation Australia (2013-2016); Sydney Water (2014-ongoing), Australia's largest water utility; Air Services Australia (2017-ongoing); air navigation services for Australia; Director Omniscent, world leader in artificial intelligence for video technologies; a Member of the Order of Australia, a national honour, for leadership of the engineering profession.



Jorge Spitalnik, Brazil, President

(2015-2017), nuclear power and mechanical engineer, Executive Director of UPADI (Pan American Union of Engineers), Member of the Executive Council of the Brazilian Federation of Engineering Associations (FEBRAE) (2003-2011), Former Chair WFEO Standing Energy Committee. Former Chair WFEO-UN Relations Committee, various leadership positions on professional technical associations of the nuclear industry.

The WFEO Secretariat

In its early years, the management of WFEO was through an elected Secretary General and a Secretariat that was initially based at the Institution of Electrical Engineers (now IET, UK) at Savoy Place in London. However, in 1975, the election of Palestine as a national member caused controversy at the General Assembly and resulted in the resignation of the then Secretary General, Dr. G.F. Gainsborough. Mr. Claude Herselin of the Institution of Civil Engineers, France was elected Secretary General and the Secretariat was transferred from London to Paris.

Following a financial crisis for the organization in 1987, a new acting Secretary General, Sir John McKenzie, was elected and the Secretariat

returned to London, this time to the Institution of Civil Engineers, U.K. Sir John McKenzie was able to avoid exhaustion of the funds of the organization and he was elected Secretary General in 1989.

The offices of the Secretariat were moved to UNESCO premises in Paris in 1997 although the Secretary General, Sir John McKenzie, remained in London. From 2001 on, the management of the organization has been led by the Executive Director, a staff member, and governance was provided by the Executive Council. In 2011 a smaller 6-member Executive Board was established for day-to-day management of the organization and also a 30-member Executive Council.

Le Secrétariat de la FMOI

Dans ses premières années, la gestion de la FMOI était assurée par un Secrétaire général élu, et un Secrétariat qui était initialement basé à l’Institution of Electrical Engineers (aujourd’hui IET, Royaume-Uni), Savoy Place à Londres. Cependant, en 1975, l’élection de la Palestine en tant que membre national suscita une controverse à l’Assemblée générale et entraîna la démission du Secrétaire général de l’époque, le Dr G.F. Gainsborough. Claude Herselin, de l’Institution des ingénieurs civils (France), fut élu Secrétaire général, et le Secrétariat transféré de Londres à Paris.

L’organisation étant confrontée à une crise financière en 1987, un nouveau Secrétaire général par intérim, Sir John McKenzie, est élu

et le Secrétariat retourne à Londres, cette fois à l’Institution of Civil Engineers. Sir John McKenzie parvient à éviter l’épuisement des ressources de l’organisation, et est élu Secrétaire général en 1989.

Les bureaux du Secrétariat ont été transférés à l’UNESCO à Paris en 1997, bien que le Secrétaire général Sir John McKenzie soit resté à Londres. Depuis 2001, la gestion de l’organisation est assurée par le Délégué général, qui est salarié de l’organisation, et la gouvernance assurée par le Conseil d’administration. En 2011, un Bureau exécutif resserré de 6 membres a été mis en place pour la gestion quotidienne de l’organisation ainsi qu’un Conseil d’administration de 30 membres.

The Administrators of the World Federation of Engineering Organizations / Les administrateurs de la Fédération mondiale des organisations d'ingénieurs



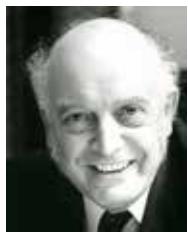
1968-1976

Dr. G.F. Gainsborough, Secretary General (elected), Secretariat based at the Institution of Electrical Engineers, (now IET), Savoy Place, London. Dr Gainsborough was also Secretary General of the Commonwealth Engineers Council.



1976-1989

The Secretariat moved to Société des ingénieurs civils de France, at 19 Rue Blanche, Paris. **Mr. Claude Herselin** was elected Secretary General.



1989-1997

Sir John McKenzie, elected Secretary General, based in Institution of Civil Engineers UK, Secretariat moved to Institution of Civil Engineers, One Great George Street, London.

1997-2001

Secretariat moved to UNESCO Paris, **Sir John McKenzie** continues as Secretary General.



1997-2003

Pierre de Boigne, Executive Director (staff member) 1997-2003, Secretariat based at UNESCO, Paris.



2003-2005

Françoise Côme, Executive Director (staff member) 2003-2005, Secretariat based at UNESCO, Paris.



2005-2016

Tahani Youssef, Executive Director (staff member) 2005-2016, Secretariat based at UNESCO, Paris.



Since 2016

Jacques de Méréuil, Executive Director (staff member) since 2016. Secretariat based at UNESCO, Paris.

Relationships with the United Nations

The World Federation of Engineering Organizations (WFEO) is recognised as an Associate of UNESCO and has been active at the United Nations and other UN organizations for many decades.

WFEO was first invited by the UN Commission on Sustainable Development (UNCSD) in April 2001 as part of the Science and Technology Major Group with ICSU (International Council of Scientific Unions, now International Science Council) and made a submission on "Energy and Transportation". WFEO subsequently attended the World Summit on Sustainable Development, Johannesburg, 28 Aug - 2 Sept 2002. This was the first time that ICSU, WFEO, ISSC (International Social Science Council), TWAS (The World Academy of Sciences) and IAP (Inter Academy Partnership) came together to demonstrate the commitment of the science and technology community to sustainable development. Subsequently, WFEO attended the meetings of the UN Commission on Sustainable Development (CSD 13 to CSD 19) until the Rio+20 Summit in 2012.

At the request of the UNCSD Secretariat, the Committee on Energy, then in charge of the subject, contributed the WFEO position on several issues for the preparation of the UN Secretary General's Report to CSD-15, CSD-16, CSD-17, CSD-18 and CSD-19. Also, the WFEO delegation produced together with ICSU, discussion papers for each of such meetings stating the positions of the scientific and technological community on the issues under discussion. The Scientific and Technological Community Major Group, led by WFEO and ICSU, is one of the 10 Major Groups of Civil Society recognized by the UN system.

At each of these events, the delegations were led by the then WFEO President and the chairs of the Standing Technical Committees on Energy, Engineering and Environment and Capacity Building. Committees organized side events and prepared position papers on topics that included Capacity Building, Transport Efficiency and Technologies for Waste Management, Mining, Transport and Chemicals. The WFEO delegation have provided the technical expertise required for feasible solutions on issues under discussion using the engineering approach when proposing actions on sustainability and development matters.

Since 2013, WFEO has been attending the High Level Political Forums as Co-Chair of the Scientific Technological Community Major Group in partnership with ICSU and ISSC (now merged into ISC, International Science Council).

The WFEO-UN Relations Committee (WURC) was created in September 2011 with the mission of acting as the WFEO interface with different UN agencies as well as intergovernmental organizations. This has enabled WFEO to contribute to the ongoing discussions on sustainable development at the highest international levels.

WFEO is also active in other UN agencies including UNIDO and UNEP. The WFEO Committee on Engineering and Environment has arranged side events at the Committee of Parties (COP) meetings held each year. The WFEO Committee for Women in Engineering has also attended and participated in side events at the UN Commission on the Status of Women.

Relations avec l'organisation des Nations unies

La Fédération mondiale des organisations d'ingénieurs entretient des relations officielles (statut associé) avec l'UNESCO et a été active à l'ONU et dans d'autres organismes onusiens pendant de nombreuses décennies. Les représentants de la FMOI ont assisté à la session de la Commission des Nations unies pour le développement durable (CNUDD) en avril 2001 dans le cadre du Groupe majeur « Communauté scientifique et technologique » avec l'ICSU (International Council of Scientific Unions, aujourd'hui le Conseil international des sciences) et a présenté un exposé sur le thème « Énergie et transports ». La FMOI a été présente par la suite au sommet mondial sur le développement durable, à Johannesburg, du 28 août au 2 septembre 2002. C'était la première fois que ICSU, FMOI, CISS (Conseil International des Sciences Sociales), TWAS (The World Academy of Sciences) et IAP (Inter Academy Partnership) étaient réunis pour démontrer l'engagement de la communauté scientifique et technologique pour le développement durable. Par la suite, La FMOI a été présente aux réunions de la Commission sur le développement durable (CSD13-CSD19) jusqu'au Sommet Rio + 20 en 2012.

À la demande de la Commission sur le développement durable de l'ONU, le Comité sur l'énergie, alors chargé du sujet, a développé la position de la FMOI sur plusieurs questions pour la préparation du rapport du Secrétaire général aux CSD-15, CSD-16, CSD-17, CSD-18 et CSD-19. En outre, la délégation de la FMOI a produit, conjointement avec celle d'ICSU, plusieurs documents de travail pour chacune de ces réunions, exposant les positions de la communauté scientifique et technologique sur les questions examinées. Le Groupe majeur « Communauté scientifique et technologique », animé par la FMOI et ICSU, est l'un des 10 principaux groupes de la société civile reconnu par le système des Nations unies.

À chacun de ces événements, les délégations étaient conduites par le président de la FMOI ainsi que les présidents des comités techniques permanents sur l'Energie, l'Ingénierie et l'environnement et le Renforcement des capacités. Les comités y ont organisé des événements parallèles et préparé des documents d'orientation sur des sujets comprenant le renforcement des capacités, l'efficacité des transports et des technologies pour la gestion des déchets, des mines et des produits chimiques. Les représentants de la FMOI ont fourni l'expertise technique requise pour des solutions réalisables sur ces questions, à l'aide de l'approche propre aux ingénieurs lorsqu'ils proposent des solutions sur les questions de durabilité et de développement.

Depuis 2013, la FMOI est impliquée dans les Forums politiques de haut niveau en qualité de coanimateur du Groupe Majeur STC, en partenariat avec ICSU (aujourd'hui ICS).

Le Comité de relations FMOI-ONU (WURC) a été créé en septembre 2011 avec la mission d'agir en tant qu'interface de la FMOI avec différentes agences de l'ONU ainsi que des organisations intergouvernementales. Cela a permis à la FMOI de contribuer aux discussions en cours sur le développement durable aux plus hauts niveaux internationaux.

La FMOI est également active dans d'autres agences comme l'UNIDO et le PNUE. Le Comité de la FMOI Ingénierie et environnement a organisé des événements parallèles lors des réunions du Comité des Parties (COP) qui se tient chaque année. Le Comité FMOI Femmes ingénieurs a également assisté et participé à des événements parallèles à la Commission des Nations unies sur la condition féminine.

Statement from His Excellency UN Secretary General António Guterres at the opening of the Global Engineering Congress (GEC2018), London 2018 / Déclaration de Son Excellence le Secrétaire général de l'ONU, Antonio Guterres à l'ouverture du Congrès mondial des ingénieurs (GEC2018), Londres 2018.



UNITED NATIONS



NATIONS UNIES

THE SECRETARY GENERAL

MESSAGE FOR OPENING OF GLOBAL ENGINEERING CONGRESS London, 22 October 2018

I congratulate the Institution of Civil Engineers on its 200th anniversary. As one of the world's oldest such organizations, the Institution has made significant contributions to the development of the very infrastructure of modern life.

I also thank the World Federation of Engineering Organizations, which encompasses institutions from 100 nations and 30 million engineers, for its leadership of the profession internationally – and which is marking its 50th anniversary.

Both milestones demonstrate the important contribution that engineering has made to our economies and our societies. The United Nations will continue to count on your engagement and support as we strive to achieve the 17 Sustainable Development Goals – the world's blueprint for building a future of peace and prosperity for all on a healthy planet. Every one of the Goals requires solutions rooted in science, technology and engineering.

I am therefore pleased that the focus of this Global Engineering Congress is to advance the goals relating to water, energy, infrastructure and cities. Climate action is especially urgent; climate change is running faster than we are and I continue to stress the need to do what science demands before it is too late.

In this Year of Engineering in the United Kingdom, I thank you for your commitment to our shared objectives and offer all the participants in the Global Engineering Congress my best wishes for a successful event.

WFEO Participation in Events at the United Nations and Its Agencies

***Participation de la FMOI à des événements
à l'ONU et ses agences***



WFEO Delegation at Rio+20, Brazil, June 2012.



WFEO Past President Jorge Spitalnik at Rio+20, Brazil, June 2012.



WFEO Delegate Dr Reginald Vachon at Rio+20, Brazil, June 2012.



Dr Reginald Vachon, Chair WFEO UN Relations Committee at UN High Level Political Forum, New York, July 2017.



Banner for High Level Political Forum, United Nations, New York, July 2017.



Dr Reginald Vachon, Chair WFEO UN Relations Committee at UN High Level Political Forum, New York, July 2018.



Mr. William Kelly speaks at WFEO Side Event at UN High Level Political Forum, New York, July 2018.



High Level Political Forum at United Nations
New York, May 2017.



WFEO Delegates at UNFCCC COP23 Climate Change Conference, Bonn, May 2017.



WFEO Committee for Environment Chair Darrel Danyluk and David Lapp, Engineers Canada, at UNFCCC COP 23 Climate Change Conference, Bonn, Germany, May 2017.



President Elect Prof. Gong Ke at the Forum on Science Technology and Innovation at the United Nations, New York, May 2018.



David Lapp, Engineers Canada, at UNFCCC COP24 Side Event, Katowice, Poland, December 2018.



Participation at the UNIDO 46th Board meeting, Vienna, November 2018.



Darrel Danyluk, Engineers Canada, at UNFCCC COP24 Side Event, Katowice, Poland, December 2018.



WFEO President Dr Marlene Kanga at UN Commission on the Status of Women (CSW61), New York, March 2017



WFEO President Dr Marlene Kanga speaks at a Side Event at the UN Commission on the Status of Women (CSW61), New York, March 2017.



Member of WFEO Executive Council Ruomei Li at CSW 62 in New York, March 2018.



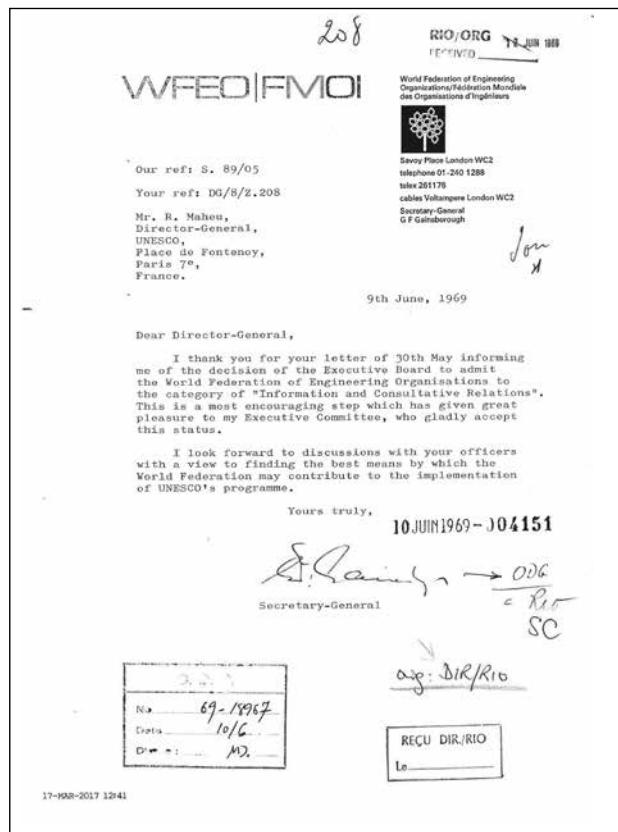
Ms Stacey DelVecchio, Secretary of the WFEO Committee on Women in Engineering (WIE) at CSW 60 in New York, March 2016.



Ms Stacey DelVecchio at CSW 61 in New York, March 2017.

Relationships with UNESCO

WFEO was recognised by UNESCO in May 1969 as a non-governmental organization for "Informative and Consultative Relations, Category B organization". This status was accorded to organizations that had provided "proof of their ability to provide UNESCO, at its request, with advice on questions within their purview and to contribute effectively by their activities to the implementation of UNESCO's programme."



Recognition of official relations by UNESCO

In 2009, WFEO was admitted into the status of Associate NGO partner at the UNESCO 189th executive board meeting. The UNESCO/WFEO Framework Agreement covering the period 2009-2015 was signed in 2010 by the then President, Maria Prieto Laffargue and the Assistant Director-General for Natural Sciences, Mr. Walter Erdelen.

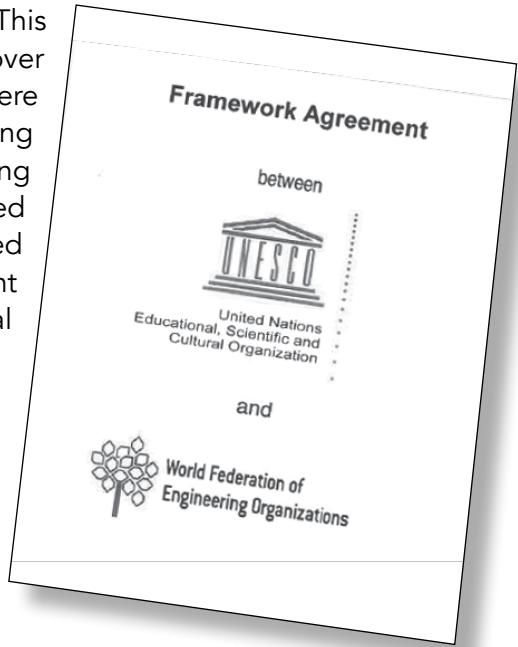
Relations avec l'UNESCO

La FMOI a été reconnue par l'UNESCO en mai 1969 en tant qu'organisation non gouvernementale pour les « Relations informatives et consultatives, organisation de catégorie B ». Ce statut était accordé aux organisations apportant "la preuve de leur capacité à fournir à l'UNESCO, à sa demande, des avis sur les questions relevant de leur compétence et à contribuer efficacement par leurs activités à la mise en œuvre du programme de l'UNESCO".

En 2009, la FMOI a accédé au statut d'ONG partenaire associée à la 189e séance du conseil exécutif de l'UNESCO. Un accord-cadre avec l'UNESCO couvrant la période 2009-2015 a été signé en 2010 par Maria Prieto Laffargue, alors présidente, et M. Walter Erdelen, Sous-directeur général pour les sciences exactes et naturelles.

The Signing of Framework Agreement, Paris, April 2016 / Signature de l'accord-cadre, Paris, avril 2016

The UNESCO/WFEO Framework Agreement is an important statement of cooperation between the two organizations. This Agreement has framed much of the work that has been done over the past 10 years, especially for events and conferences where UNESCO has provided its patronage, the UNESCO Engineering Report and capacity building initiatives such as Africa Engineering Week. The first UNESCO/WFEO Framework Agreement covered the period 2009-2015. The Framework Agreement was renewed in March 2016 for the period 2016-2024 by then WFEO President Jorge Spitalnik and Assistant Director-General for Natural Sciences, Ms Flavia Schlegel.



L'accord-cadre UNESCO/FMOI est un important résultat de la coopération entre les deux organisations. Cet accord a encadré une grande partie du travail qui a été fait au cours des 10 dernières années, surtout pour les événements et les conférences où l'UNESCO a apporté son patronage, le rapport technique de l'UNESCO et le renforcement des initiatives telles que la semaine de l'ingénierie en Afrique.

Le premier accord cadre entre l'UNESCO et la FMOI couvrant la période 2009-2015. L'accord-cadre a été renouvelé en mars 2016 pour la période 2016-2024 par le président de la FMOI Jorge Spitalnik et la sous directrice générale pour les Sciences naturelles, Mme Flavia Schlegel.

Paris Declaration

Advancing the United Nations Sustainable Development Goals through Engineering

SUSTAINABLE DEVELOPMENT GOALS

The World Federation of Engineering Organizations (WFEO) is the main body for engineering globally, representing nearly 100 nations and some 30 million engineers.

The members of WFEO are the national and regional professional engineering institutions of the world. WFEO is a member of the United Nations Scientific and Technological Community (UN STC) Major Group and has an official Associate status with UNESCO.

UNESCO, as the United Nations agency for education, science and culture, supports engineering through its Natural Sciences Sector, and acknowledges engineering as a powerful means to achieve sustainable development, capacity-building in engineering education and gender equality in developing countries, as well as the safeguarding of world heritage.

**World Federation of Engineering Organizations
Fédération Mondiale des Organisations d'Ingénieurs**

**United Nations
Educational, Scientific and Cultural Organization**

The Paris Declaration

The Paris Declaration, signed by WFEO President Dr Marlene Kanga and Mr Douglas Nakashima, Director Capacity Building, Natural Sciences Sector at UNESCO in Paris on 7th March 2018 on the occasion of its 50th anniversary, is a commitment of WFEO to advancing the UN 2030 Agenda and also a recognition of the close partnership that exists between WFEO and UNESCO.

La déclaration de Paris

La Déclaration de Paris, signée par Marlène Kanga, présidente, FMOI et Douglas Nakashima, directeur Renforcement des capacités au Secteur des Sciences exactes et naturelles de l'UNESCO, à Paris le 7 mars 2018 à l'occasion de son 50e anniversaire, est un engagement de la FMOI à contribuer aux objectifs de l'Agenda de 2030 des Nations unies, et est également une reconnaissance de l'étroite collaboration qui existe entre la FMOI et l'UNESCO.

Paris Declaration on the Commitment of WFEO to advance the UN Sustainable Development Goals through Engineering, for the 50th Anniversary Celebrations, 7 March 2018

Déclaration de Paris sur l'engagement de la FMOI pour contribuer aux Objectifs de développement durable par l'ingénierie, pour les célébrations du 50e anniversaire, le 7 mars 2018

The Paris Declaration: Advancing the UN Sustainable Development Goals through Engineering

The World Federation of Engineering Organizations (WFEO) is the main body for engineering globally, representing nearly 100 nations and some 30 million engineers. The members of WFEO are the national and regional professional engineering institutions of the world. WFEO is a member of the United Nations Scientific and Technological Community (UN STC) Major Group and has an official Associate status with UNESCO.

UNESCO, as the United Nations agency for education, science and culture, supports engineering through its Natural Sciences Sector, and acknowledges engineering as a powerful means to achieve sustainable development, capacity-building in engineering education and gender equality in developing countries, as well as the safeguarding of world heritage.

Considering that:

1. In September 2015, the United Nations General Assembly adopted its Resolution 70/1 announcing the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs), which take an integrated approach to future development, combining progress in economic prosperity, social inclusion and environmental sustainability.
2. Engineers and engineering are critical for achieving the SDGs. Engineers have a key role in supporting the growth and development of essential infrastructures such as: roads, railways, bridges, dams, waste management, water supply and sanitation, energy and digital networks. They are responsible for developing and implementing technologies and systems that contribute towards achieving the SDGs as they relate to water, energy, environment, sustainable cities, natural disaster resilience and other areas, which will benefit people and the planet for greater prosperity and better quality of life.
3. WFEO is committed to playing a key role in leading and coordinating projects to achieve the SDGs through engineering. WFEO can bring together its members, educational institutions, government and industry to address the need for engineering capacity and the quality of engineers around the world and develop strategic frameworks and best practices for the implementation of engineering solutions for sustainable development. The national and regional members of WFEO, that are leading professional engineering institutions, will develop country and region-specific responses.
4. The celebration of WFEO's 50th anniversary in 2018 is a catalyst to develop a framework for an action plan for the engineering capacity that is required to achieve the SDGs. The Symposium held today, on 7th March 2018, is the first stage in bringing together the WFEO members and partners to develop the WFEO Engineering 2030 Plan.

Accordingly, we declare:

1. WFEO, a recognized member of the UN STC Major Group and UNESCO, through its Natural Sciences Sector, will work together and in cooperation with other UN organizations, including UNEP, UNFCCC and UNISDR towards achieving the SDGs through engineering.
2. WFEO and UNESCO are committed to the following principles for action through engineering to achieve the SDGs:
 - a. Increase the numbers and quality of engineering graduates that meet the needs of sustainable development with rapidly changing technologies, in collaboration with educators, government and industry;
 - b. Inform global standards for engineering education, support the development of a range of engineering education systems to comply with agreed standards and facilitate the mobility of engineers;
 - c. Support capacity-building through strong institutions for engineering education and the development of accreditation bodies for the recognition of professional credentials;
 - d. Establish policy frameworks and best practices, notably through WFEO Standing Technical Committees, as digital technologies, data sciences and artificial intelligence have ethical and social implications.

Signed in Paris, 7 March 2018

Dr. Marlene Kanga AM
WFEO President

Dr. Flavia Schlegel
Assistant Director General
Natural Sciences Division, UNESCO

Déclaration de Paris: Atteindre les Objectifs de développement durable des Nations unies par l'ingénierie

La Fédération mondiale des organisations d'ingénieurs (FMOI) est la principale organisation globale pour l'ingénierie, représentant plus de 30 millions d'ingénieurs dans près de 100 pays. Les membres de la FMOI font partie des plus importantes organisations nationales et régionales d'ingénieurs. La FMOI est un membre du Groupe majeur « Communauté Scientifique et Technologique » des Nations unies (UN STC), et possède un statut d'association avec l'UNESCO.

L'UNESCO, en qualité d'agence des Nations unies pour l'éducation, la science et la culture, soutient l'ingénierie par l'intermédiaire de son Secteur des Sciences exactes et naturelles, et reconnaît l'ingénierie comme un moyen important de parvenir à un développement durable, de faire progresser le renforcement des capacités, le niveau d'éducation et l'égalité femme-homme dans les pays en développement, et de sauvegarder le patrimoine mondial.

Considérant que :

1. L'Assemblée générale des Nations unies a adopté en septembre 2015 la Résolution 70/1 établissant l'Agenda 2030 et ses 17 Objectifs de développement durable (ODD), qui proposent une approche intégrée du développement pour l'avenir, combinant croissance économique, inclusion sociale et soutenabilité environnementale.
2. L'ingénierie et les ingénieurs sont essentiels pour atteindre les ODD. Les ingénieurs ont un rôle-clé à jouer dans le développement d'infrastructures indispensables comme les routes, voies ferrées, ponts, barrages, installations de gestion des déchets, d'eau, d'assainissement, énergie et de réseaux numériques. Ils ont la responsabilité de développer et de mettre en place les technologies et les outils qui permettront d'atteindre les ODD relatifs à l'eau, à l'énergie, à l'environnement, aux villes durables, à la résilience face aux désastres naturels et d'autres enjeux liés à l'augmentation de la prospérité et du bien-être des populations et de la planète.
3. La FMOI s'engage à jouer un rôle de leadership et de coordination pour mettre en œuvre les ODD à travers l'ingénierie. La FMOI peut rassembler ses membres, les organismes d'éducation, les pouvoirs publics et les acteurs industriels pour répondre aux besoins mondiaux en capacités d'ingénierie, en qualité des ingénieurs, et pour créer les structures et bonnes pratiques appropriées pour la mise en œuvre des contributions des ingénieurs au développement durable. Les membres nationaux et régionaux de la FMOI, qui sont des organisations professionnelles de référence, seront amenés à développer des réponses adaptées aux pays et régions concernés.
4. La célébration du 50e anniversaire de la FMOI en 2018 est une occasion de créer un cadre d'action pour le développement des capacités en ingénierie indispensables pour atteindre les Objectifs de développement durable. Le symposium qui se tient ce 7 mars 2018 est la première étape rassemblant les membres de la FMOI et leurs partenaires pour mettre en œuvre le « WFEO Engineering 2030 Plan ».

Ainsi, nous déclarons que:

1. En qualité de membre du Groupe majeur « Communauté Scientifique et Technologique » des Nations unies, la FMOI travaillera avec l'UNESCO et son Secteur des Sciences exactes et naturelles, ainsi que d'autres agences des Nations unies, notamment, le PNUE, la CNUCC, l'UNISDR pour mettre en œuvre les ODD à travers l'ingénierie.
2. La FMOI et l'UNESCO s'engagent à suivre les principes d'actions suivants en matière d'ingénierie afin d'atteindre les ODD.
 - a. Augmenter, en collaboration avec les enseignants, les gouvernements et l'industrie, le nombre et le niveau de qualification des jeunes ingénieurs pour répondre aux impératifs du développement durable et à l'évolution rapide des technologies;
 - b. Construire des standards mondiaux pour la formation d'ingénieur, contribuer au développement d'une vaste gamme de systèmes de formation à l'ingénierie, avec des accords assez vastes pour permettre la mobilité des ingénieurs ;
 - c. Contribuer au renforcement des capacités à travers de solides institutions d'accréditation et de formation, soutenir le développement de ces institutions pour augmenter la reconnaissance des formations et des qualifications d'ingénieurs ;
 - d. Etablir des cadres et recommandations en matière de bonnes pratiques, en particulier via les travaux des comités techniques de la FMOI, tenant compte des implications éthiques et sociales des technologies numériques, de la gestion des données et de l'intelligence artificielle.

Signé à Paris, 7 Mars 2018,

Dr. Marlene Kanga

President,

Fédération mondiale des organisations d'ingénieurs

Dr. Flavia Schlegel,

Sous-Directrice générale pour les Sciences
Exactes et Naturelles, UNESCO

Collaboration with UNESCO / Collaboration avec l'UNESCO



Mr. Douglas Nakashima, Director Capacity Building Section, Natural Science Sector, signs the WFEO UNESCO Paris Declaration, 7th March 2018.



Mr. Douglas Nakashima, Director Capacity Building Section, Natural Science Sector, speaks after signing the WFEO UNESCO Paris Declaration, 7th March 2018.

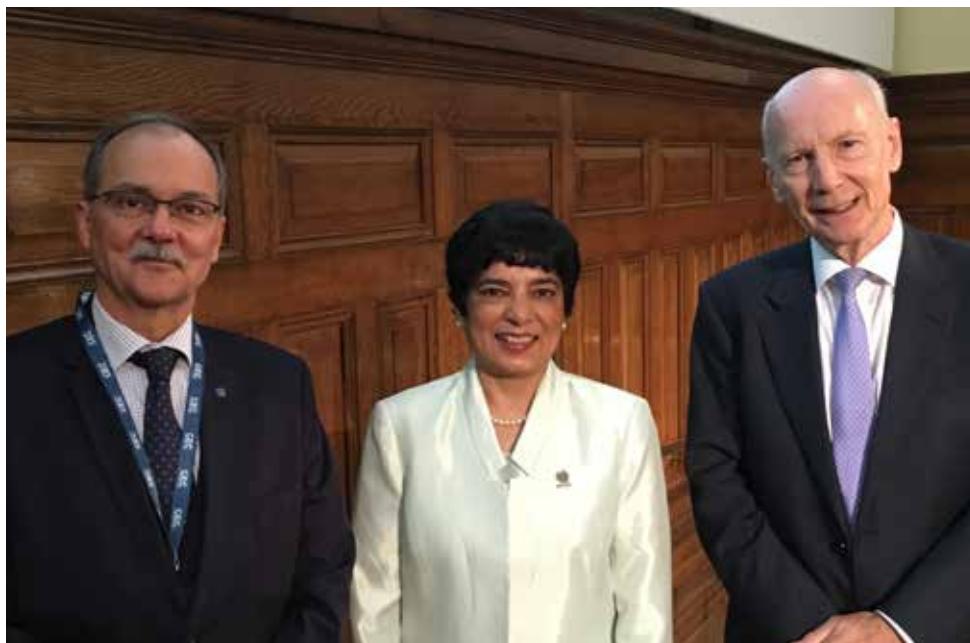


WFEO Symposium on Engineering and the UN Sustainable Development Goals, UNESCO Paris, 50th Anniversary celebrations, 7th March 2018.



WFEO Past Presidents at the signing of the Paris Declaration at UNESCO, 7th March 2018.

The Global Engineering Congress 2018



Mr. Miguel Clüsener-Godt, UNESCO, with President of the Institution of Civil Engineers (UK), Lord Robert Mair and WFEO President Dr Marline Kanga at opening of the Global Engineering Congress, London, October 2018.

The Global Engineering Congress (GEC2018) was the first time that the engineering profession came together to discuss the implementation of solutions for sustainable development.

UNESCO recognised the success of the Congress with the Assistant Director General stating that "I have been informed by my colleagues who attended the Congress that it was a great success and that it had an important impact on the engineering community. Moreover, I am pleased to hear that the SDGs have been discussed and

debated during lectures and conferences of participants as well as promoted throughout the whole Congress. The leadership you provide to WFEO makes it a strong partner to advance the 2030 Agenda for Sustainable Development".

The engagement has resulted in worldwide uptake of this issue by engineering companies and institutions and has galvanised engineers into thinking differently and incorporating the values of sustainable development into their everyday roles.

Le Congrès mondial des ingénieurs 2018

Le Global Engineering Congress (GEC2018) a constitué la première occasion pour la profession d'ingénieur globalement représentée de discuter de la mise en œuvre de solutions pour le développement durable.

L'UNESCO a fait état de la réussite de ce congrès, la Sous-Directrice générale ayant déclaré: « J'ai été informée par mes collègues qui ont assisté au Congrès que ce fut un grand succès et qu'il a eu un impact important sur la communauté des ingénieurs. En outre, je suis heureuse d'apprendre que les ODD ont été discutés et

débattus pendant les sessions de la conférence et qu'ils ont été promus tout au long du Congrès. Le leadership que vous donnez à la FMOI en fait un partenaire solide pour la réussite de l'Agenda 2030 pour le développement durable.»

Cet engagement a permis aux sociétés et institutions d'ingénieurs du monde entier de s'approprier cette question et a incité les ingénieurs à penser différemment et à intégrer les valeurs liées au développement durable dans leur travail quotidien.



Opening of the Global Engineering Congress, part of WFEO 50th Anniversary celebrations, London, 20 October 2018



Focus on the UN Sustainable Development Goals: Water (Goal 6), Energy (Goal 7), Innovation (Goal 9) Sustainable Cities and Infrastructure (Goal 11) and Climate Change (Goal 13) at the Global Engineering Congress, London, October 2018.



United Nations
Educational, Scientific and
Cultural Organization
Organisation
des Nations Unies
pour l'éducation,
la science et la culture
Organización
de las Naciones Unidas
para la Educación,
la Ciencia y la Cultura
Организация
Объединенных Наций по
образованию, науке и культуре

聯合國教育、
科學及文化組織

The Assistant Director-General
for Natural Sciences

Ms Marlene Kanga
President
World Federation of Engineering
Organizations
UNESCO House

17 December 2018

Ref.: SC/PCB/CB/18/10316

Dear Ms Kanga,

First and foremost, I would like to congratulate you and thank you for organizing the Global Engineering Congress 2018 (GEC 2018) under the patronage of UNESCO.

I have been informed by my colleagues who attended the Congress that it was a great success and that it had an important impact on the engineering community. Moreover, I am pleased to hear that the SDGs have been discussed and debated during lectures and conferences of participants as well as promoted throughout the whole Congress.

The leadership you provide to WFEO makes it a strong partner to advance the 2030 Agenda for Sustainable Development.

I welcome our shared commitment to develop an ongoing programme of work that will address engineering for the SDGs. I am convinced that together we can achieve much more than individually.

Please accept my sincere appreciation for your commitment to making engineering for the SDGs a reality, and your support in laying a path for future endeavours.

Yours sincerely,

Certifiée

M. Schlegel

Flavia Schlegel

7, place de Fontenoy
75352 Paris CE 55, France
Tel: +33 (0)1 45 68 11 88
www.unesco.org/science

Letter of Congratulations from UNESCO Assistant Director General Ms. Flavia Schlegel on the success of the Global Engineering Congress, October 2018 and the leadership of WFEO in advancing the UN Sustainable Development Goals

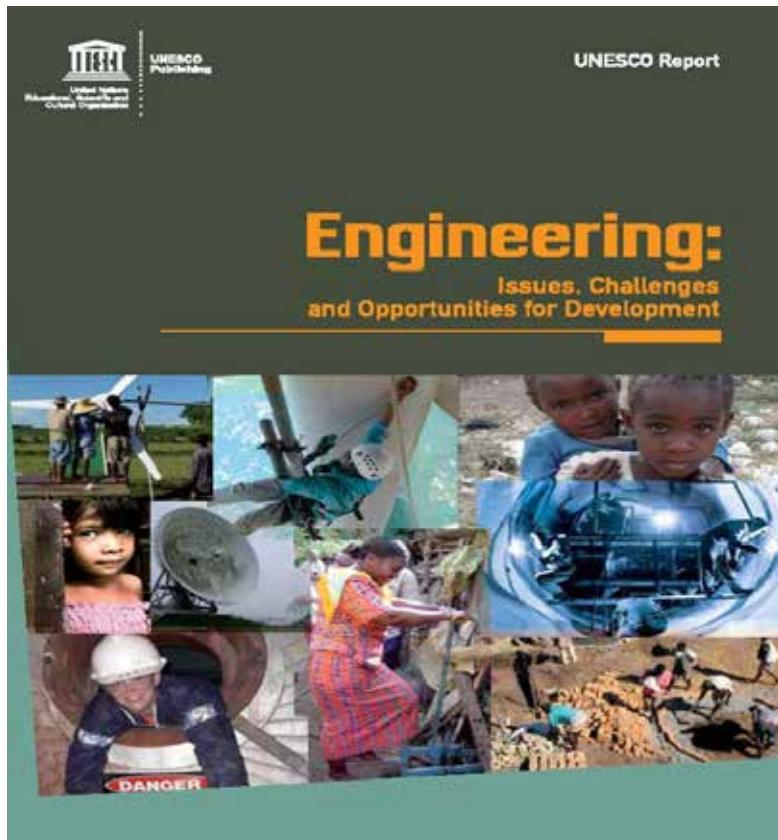
Lettre de félicitations de la Sous-directrice générale de l'UNESCO Mme Flavia Schlegel sur le succès du Congrès mondial des ingénieurs d'octobre 2018 et le rôle moteur de la FMOI pour contribuer aux Objectifs de développement durable.

The First UNESCO Engineering Report

WFEO has worked closely with UNESCO in the development of the first UNESCO Engineering Report, published in 2010 and the most downloaded UNESCO publication to date. Nearly 1 million downloads have been recorded since the document was published.

Le premier rapport sur l'ingénierie de l'UNESCO

La FMOI a travaillé en étroite collaboration avec l'UNESCO dans le développement du premier rapport sur l'ingénierie de l'UNESCO, publié en 2010 et qui est la publication de l'UNESCO la plus téléchargée à ce jour. Presque 1 million de téléchargements ont été comptabilisés depuis que le document a été publié.



The first UNESCO Engineering Report, published by UNESCO in 2010.

WFEO Contributors to the First UNESCO Engineering Report, 2010 / Contributeurs de la FMOI au premier rapport sur l'ingénierie de l'UNESCO, 2010

NAME AND AFFILIATION	
Abdul Menhem Alameddine, Lebanon Chair, WFEO Committee on Engineering Education 2012-2019, Vice President of the Federation of Lebanese engineers	Yumio Ishii, Japan Founding Chair, Committee for Disaster Risk Management 2009-2013, Past President of the Japan Society of Civil Engineers
Kamel Ayadi, Tunisia President WFEO 1996-1997, Founding Chair WFEO Committee on Anti-Corruption 2007-2011, Former President of the Tunisian Order of Engineers	Russel C. Jones, USA Founding Chair, WFEO Committee on Capacity Building 2003-2007
Conrado Bauer, Argentina President WFEO 1994-1996, Former President of Argentine Union of Engineers (UADI), Founding Chair WFEO Standing Committee on Engineering and the Environment	Paul Jowitt, UK President of Commonwealth Engineers Council, WFEO Executive Council member, former President of the Institution of Civil Engineers UK.
Tan Seng Chuan, Singapore Treasurer, WFEO, Executive Board Member , former President Federation of Engineering Institutions of Asia and the Pacific, Former President Institution of Engineers, Singapore	Marlene Kanga AM, Australia President WFEO 2017-2019, National President Engineers Australia (2013)
Andrew Cleland, New Zealand Former Chief Executive, Engineering New Zealand, National member delegate to WFEO.	Jose Medem Sanjuan, Spain President WFEO 1999-2003, Past President of European Council of Civil Engineers (ECCE), Past president European Federation of National Engineering Associations (FEANI), Past President German-Spanish Engineering Association
Daniel Clinton, USA Chair WFEO Committee on Capacity Building 2007-2011, former President National Society of Professional Engineers, former Vice President UPADI (Union de Pan American Associados de Ingenerios)	Tony Ridley, UK President of Commonwealth Engineers Council, WFEO Executive Council member, former President of the Institution of Civil Engineers UK
Darrel John Danyluk, Canada Chair WFEO Committee on Engineering and the Environment, Former President Engineers Canada.	William C. Salmon, USA WFEO Executive Council Member, Chair Governance Committee
Barry Grear AO, Australia President WFEO 2007-2009, former President Engineers Australia	Jorge Spitalnik, Brazil President WFEO 2015-2017, Past Vice President FEBRAE (The Brazilian Federation of Engineering Associations), Past Vice President UPADI (Pan American Union of Engineering Associations), former Chair WFEO Committee on Energy
Peter Greenwood, Australia Executive Vice President WFEO, 2011-2017, Former President Engineers Australia	

The Second UNESCO Engineering Report

WFEO is working closely with UNESCO for the development of the second UNESCO Engineering Report which is scheduled for publication in early 2020. WFEO President Dr Marlene Kanga is the author of a chapter on the role of engineers for advancing the UN Sustainable Development Goals, and in particular in developing capacity for engineering in developing countries in Africa, Asia and South America. Representatives of WFEO national and international members are also authors of various sections of the Report and members of the Steering Committee and Advisory Committee. Many WFEO members have also provided peer reviews for the chapters in the report.

Le second rapport sur l'ingénierie de l'UNESCO

La FMOI travaille en étroite collaboration avec l'UNESCO à l'élaboration du deuxième rapport technique de l'UNESCO, dont la publication est prévue pour début 2020. Marlene Kanga, présidente de la FMOI, est l'auteur d'un chapitre sur le rôle des ingénieurs dans la réalisation des objectifs des Nations unies en matière de développement durable, et en particulier dans le renforcement des capacités d'ingénierie dans les pays en développement en Afrique, en Asie et en Amérique latine. Les représentants des membres nationaux et internationaux de la FMOI sont également auteurs de diverses sections du rapport et membres du Comité directeur et du Comité scientifique. De nombreux membres de la FMOI ont également contribué aux évaluations par les pairs pour les chapitres du rapport.



WFEO national and international member representatives and others at the inaugural meeting for the development of the Second UNESCO Engineering Report, UNESCO, March 2018.

WFEO Contributors to the Second UNESCO Engineering Report / *Contributeurs de la FMOI au deuxième rapport sur l'ingénierie de l'UNESCO*

NAME AND AFFILIATION	
Marlene Kanga President, WFEO 2017-19	Nicola Monda Secretary General, Engineering Association of Mediterranean Countries (EAMC), international member of WFEO
Yashin Brijmohan Chair, WFEO Committee for Capacity Building, representing Engineering Council of South Africa	Vladimir Sitsev Vice-President, Union of Scientific and Engineering Associations (USA), international member of WFEO
Zainab Garashi Chair WFEO Committee on Young Engineer/Future Leaders, representing Kuwait Society of Engineers	Maria Teresa Dalenz Zapata President (2018), Pan American Federation of Engineering Societies (UPADI), international member of WFEO
Julius Riungu President (2018), Federation of African Engineering Organizations (FAEO), international member of WFEO	Adil Al Hadithi General Secretary, Federation of Arab Engineers (FAE), international member of WFEO
Li, John Chien Chung Federation of Engineering Institutions of Asia and the Pacific (FEIAP), international member of WFEO	Paul Jowitt President, Commonwealth Engineers Council (CEC), international member of WFEO
Jayavilal Meegoda President, Federation of Engineering Institutions of South and Central Asia (FEISCA), international member of WFEO	Gong Ke President Elect (2017-2019), WFEO, representing China Association for Science and Technology (CAST)
Alfonso Alberto Gonzalez F. World Council of Civil Engineers, international member of WFEO	Martin Manuhwa President Elect (2018), Federation of African Engineering Organizations, international member of WFEO
José Manuel Vieira President, European Federation of National Engineering Associations (FEANI), international member of WFEO	

WFEO General Assemblies and Executive Council Meetings

The WFEO schedule of General Assembly and Executive Councils shows the engagement of WFEO with its members around the world.

The second General Assembly of the World Federation of Engineering Organizations was held from October 28 to October 30, 1969 in Paris. 107 representatives of 53 countries and four International Associations (CEC, FEANI, UPADI, FAE) participated in this assembly. Academician A. Ishlinsky was elected Vice President, and became the third President in 1987.

The WFEO meetings are usually associated with conferences that have resulted in significant outcomes and legacies. The most recent, the Global Engineering Congress (GEC2018), was hosted by the WFEO national member for the U.K., the Institution of Civil Engineers as part of its bicentenary celebrations and the 50th anniversary celebrations of WFEO.

The World Engineers Conventions are held every four years, at the same time as General Assembly WFEO meetings.

Assemblées générales et Réunions du Conseil d'administration de la FMOI

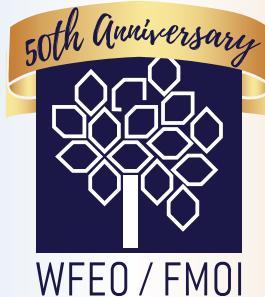
L'histoire des réunions de l'Assemblée générale et du Conseil d'administration de la FMOI démontre la coopération de la FMOI avec ses membres dans le monde entier.

La deuxième Assemblée générale de la Fédération mondiale des organisations d'ingénieurs s'est tenue du 28 au 30 octobre 1969 à Paris. 107 représentants de 53 pays et de quatre associations internationales (CEC, FEANI, UPADI, FAE) ont participé à cette assemblée. L'académicien A. Ishlinsky y a été élu vice-président, avant de devenir le troisième président de la FMOI en 1987.

Les réunions de la FMOI sont généralement associées à une conférence, et ces conférences ont donné lieu à d'importants résultats. La dernière en date, le Congrès mondial des ingénieurs, 2018 (GEC2018), a été accueilli par le membre national de la FMOI au Royaume-Uni, l'Institution of Civil Engineers.

Les Conventions mondiales des ingénieurs se tiennent tous les quatre ans, en même temps que les réunions de l'Assemblée Générale de la FMOI.

General Assemblies and Executive Council Meetings



Assemblées générales et réunions du Conseil d'administration

1968

6 March 1968, Paris, France
General Assembly Inaugural meeting,
UNESCO Paris, Eric Choisy elected
President (1968-1975)

1969

3 November 1969, Paris, France
General Assembly, UNESCO, Eric
Choisy 1st President (1968-1975)

1970

Geneva, Switzerland
Executive Council meeting

1971

28 June 1971, Varna, Bulgaria
General Assembly Eric Choisy 1st
President (1968-1975)

1972

22 September 1972,
Geneva, Switzerland
Executive Council meeting

1973

17 September 1973, New York, USA
General Assembly Eric Choisy
1st President (1968-1975)

1975

24 June 1975, Tunis, Tunisia
General Assembly Eric Choisy 1st
President (1968-1975), Sadok Ben
Jemaa elected 2nd President

1977

21 June 1977, Warsaw, Poland
General Assembly, Sadok Ben Jemaa
2nd President (1975-1987)

1979

15 November 1979, Jakarta, Indonesia
General Assembly, Sadok Ben Jemaa
2nd President (1975-1987)

1981

15 November 1981,
Buenos Aires, Argentina
General Assembly, Sadok Ben Jemaa
2nd President (1975-1987)

1983

6 June 1983, Nairobi, Kenya
General Assembly, Sadok Ben Jemaa
2nd President (1975-1987)

1985

7 November 1985, New Delhi, India
General Assembly, Sadok Ben Jemaa
2nd President (1975-1987)
Prof. Ishlinksy elected President

1986	Beijing, China Executive Council meeting	1995	5 October 1995, Budapest, Hungary General Assembly, William (Bud) Carroll is President (1991-1995), Conrado Bauer starts as President (1995-1999)
1987	25 May 1987, Vancouver, Canada General Assembly Prof Ishlinsky starts as President (1987-1991)	1997	27 November 1997, Hong Kong General Assembly, Conrado Bauer is President (1995-1999). Jose Medem elected President
1988	June 1988, London, UK Extraordinary General Assembly Prof Ishlinsky is President (1987-1991)	1999	19 November 1999, Madrid, Spain General Assembly, Conrado Bauer is President (1995-1999), Jose Medem starts as President (1999-2003)
1989	1 October 1989, Prague, Czech Republic General Assembly, Prof Ishlinsky is President (1987-1991) William (Bud) Carroll elected President	2000	Bucharest, Romania Executive Council meeting, 1st WEC in Hanover, Germany
1991	26 September 1991, Arusha, Tanzania General Assembly, William (Bud) Carroll is President (1991-1995)	2001	13 September 2001, Moscow, Russia General Assembly, Jose Medem is President (1999-2003), Dato Lee Yee Cheong elected President
1993	1 October 1993, Havana, Cuba General Assembly, William (Bud) Carroll is President (1991-1995). Conrado Bauer elected President	2002	Acapulco, Mexico Executive Council meeting
1994	Amman, Jordan Executive Council meeting	2003	15 October 2003, Tunis, Tunisia General Assembly, Jose Medem is President (1999-2003), Dato Lee Yee Cheong starts as President (2003-2005), Kamel Ayadi elected President

2004	5 November 2004, Shanghai, China Special General Assembly and 2nd WEC held in Shanghai	2012	Ljubljana, Slovenia Executive Council meeting
2005	19 October 2005, San Juan, Puerto Rico General Assembly, Dato Lee Yee Cheong is President (2003-2005), Kamel Ayadi starts as President (2005-2007), Barry Gear elected President	2013	14 September 2013, Singapore General Assembly, Adel Al Kharafi is President (2011-2013), Marwan Abdelhamid starts as President (2013-2015), Jorge Spitalnik elected President
2007	15 November 2007, New Delhi, India General Assembly, Kamel Ayadi is President (2005-2007), Barry Gear starts as President (2007-2009). Maria Laffargue elected President	2014	Paris, France Executive Council meeting
2008	Brasilia, Brazil Executive Council meeting, 3rd WEC held in Brasilia	2015	3 December 2015, Kyoto, Japan Marwan Abdelhamid is President (2013-2015), Jorge Spitalnik starts as President (2015-2017), Marlene Kanga elected President, 5th WEC held in Kyoto
2009	5 November 2009, Kuwait General Assembly, Barry Gear is President (2007-2009), Maria Laffargue starts as President (2009-2011), Adel Al Kharafi elected President	2016	Lima, Peru Executive Council meeting
2010	Buenos Aires, Argentina Executive Council meeting	2017	1 December 2017 Rome, Italy General Assembly, Jorge Spitalnik is President (2015-2017), Marlene Kanga starts as President (2017-2019), Gong Ke elected President
2011	7 September 2011, Geneva, Switzerland, General Assembly, Maria Laffargue is President (2009-2011), Adel Al Kharafi starts as President (2011-2013), Marwan Abdelhamid elected President, 4th WEC held in Geneva	2018	London, U.K. 50th Anniversary Executive Council meeting

The Early Years



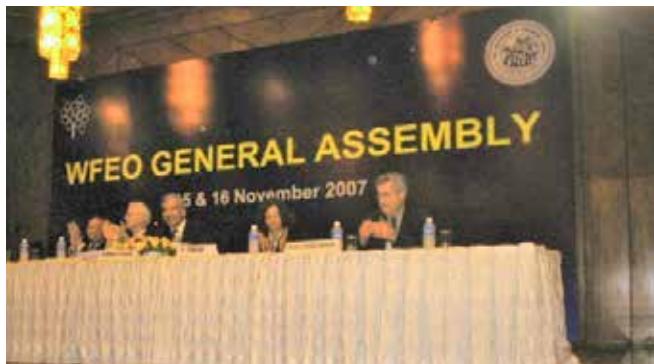
Les premières années



WFEO General Assemblies and Executive Council Meetings / Réunions d'Assemblée générale et du Conseil d'administration de la FMOI



WFEO Executive Council and World Engineers Convention, Brasilia, 2008.



WFEO General Assembly, New Delhi, 2007.



WFEO General Assembly, Kuwait, 2009.



WFEO General Assembly, Kuwait, 2009.



WFEO Executive Board meeting, Paris, 2011.



WFEO Executive Council meeting, 2011, with Prof. Gretchen Kalonji, Assistant Director General Science Sector, UNESCO.



Inaugural meeting of Executive Council, Geneva, 2011.



WFEO General Assembly, Geneva, 2011.



Opening of World Engineering Forum, Ljubljana, 2012.



WFEO General Assembly, Geneva, 2011.



Opening of World Engineering Forum, Ljubljana, 2012.



Meetings in World Engineering Forum, Ljubljana, 2012.



WFEO General Assembly, Singapore, 2013.



Conference session at World Engineering Forum, Ljubljana, 2012.



WFEO General Assembly, Singapore, 2013.



Meeting with European members of WFEO, Ljubljana, 2012.



WFEO Executive Council meeting, Paris, 2014.



WFEO Extended Board meeting, Paris, April 2014.



WFEO Executive Council meeting, Kyoto, December 2015.



WFEO Executive Council meeting, Paris, November 2014.



WFEO General Assembly, Kyoto, December 2015.



WFEO General Assembly, Kyoto, December 2015.



WFEO Executive Council 2015-17 Inaugural meeting,
Kyoto, December 2015.



WFEO Executive Council Inaugural meeting, Kyoto, December 2015.



2017-19 WFEO Executive Board, Rome, December 2017.



WFEO Executive Council meeting, Lima, December 2016.



WFEO General Assembly, Rome, December 2017.



WFEO Executive Council 2017-19, Rome, December 2017.



WFEO Executive Board at WFEO General Assembly, Rome, December 2017.



WFEO International Members' meeting, Paris, March 2018.



WFEO 50th Anniversary Gala Dinner, London, October 2018.



WFEO Executive Board, L to R: Auditor Haro Bedelian, Reginald Vachon, Jacques de Méreuil, Executive Director, Jorge Spitalnik, Seng Chuan Tan, Marlène Kanga, Gong Ke, Crtomir Remec, London, October 2018



WFEO 50th Anniversary Symposium, Paris, March 2018.



WFEO 50th Anniversary Executive Council meeting, London, 20 October 2018.



WFEO 50th Anniversary Executive Council Members, London, October 2018.

WFEO Meetings and Events

WFEO has been involved in hundreds of meetings and events hosted by its members around the world. Some of these are held as part of the WFEO technical and administrative meetings, others are independent events hosted by WFEO members. WFEO also attends events at the United Nations and its various agencies.

Événements et réunions de la FMOI

La FMOI a participé à des centaines de réunions et d'événements organisés par ses membres partout dans le monde. Certains d'entre eux sont organisés dans le cadre des réunions techniques et administratives de la FMOI, d'autres sont des manifestations indépendantes organisées par les membres de la FMOI. La FMOI participe également à des manifestations aux Nations unies, et dans ses différentes agences.



WFEO / FMOI



WFEO President Barry Grear (2007-2009) speaks at the opening of World Congress on ICT Development, September 2009, Beijing, hosted by China Association for Science and Technology (CAST).



WFEO Past Presidents Barry Grear and Dato Lee Yee Cheong with Prof. Mustafa El Tayeb at the World Congress for ICT Development (WCID), held in Beijing September 2009, hosted by China Association for Science and Technology (CAST).



Past Presidents Barry Gear and Maria Jesus Prieto Laffargue at the WFEO General Assembly hosted by the Kuwait Society of Engineers, Kuwait, 2009.



WFEO Past President Adel Al Kharafi at the FEIAP Convention, Singapore, 2011.



WFEO Past President Maria Jesus Prieto Laffargue at the 27th Indian Engineering Congress, hosted by the Institution of Engineers, India, 2011.



WFEO Past presidents Marwan Abdelhamid and Maria Jesus Prieto Laffargue at WES 2013, Singapore, 2013.



Past presidents Maria Jesus Prieto Laffargue and Adel Al Kharafi with WFEO Executive Director Tahani Youssef, WFEO General Assembly, Singapore, 2013.



WFEO Past President Maria Jesus Prieto Laffargue speaks at the International Conference on Engineering for Sustainable Energy in Developing Countries, Guangzhou, China, September 2013.



WFEO delegates at the International Conference on Engineering for Sustainable Energy in Developing Countries, Guangzhou, China, September 2013.



WFEO delegates at the International Conference on Engineering for Sustainable Energy in Developing Countries, Guangzhou, China, September 2013.



WFEO Chair Committee for Energy, Mr. Sam Grossman at the International Conference on Engineering for Sustainable Energy in Developing, Guangzhou, China, September 2013.



WFEO Presidents at the WFEO General Assembly, Rome, December 2017.



WFEO Past President Jorge Spitalnik at the 20th Pacific Basin Nuclear Conference, Beijing, April 2016.



WFEO President Dr. Marlene Kanga at the opening of the World Engineering Forum, at the Chamber of Deputies, Rome, December 2017.



WFEO President Dr. Marlene Kanga at the opening of the World Intelligence Conference, Tianjin, September 2017.



WFEO Committee for Anti-Corruption Chair Martin Manuhwa at the World Justice Forum, The Hague, July, 2017.



WFEO President Dr. Marlene Kanga at the opening of the 32nd Indian Engineering Congress, hosted by the Institution of Engineers India, Chennai, December 2017.



WFEO President-Elect Prof. Gong Ke at the opening of the International Forum on Capacity Building in Engineering, Beijing, November 2018.



Forum on Portuguese Engineering in the International Context, Order of Engineers, Portugal, February 2018.



WFEO President Dr Marlene Kanga at Myanmar Engineering Council, Yangon, August 2018.

WFEO Activities and Events with Associated Organizations / *Activités de la FMOI et événements avec les organisations associées*



WFEO Past President Mr. Adel Al Kharafi at the International Council of Scientific Unions (ICSU) General Assembly, 2011.



WFEO Past President Mr. Adel Al Kharafi at the International Council of Scientific Unions (ICSU) General Assembly, 2011.



WFEO Delegates from Africa at the launch of Africa Catalyst, Royal Academy of Engineering UK, London, September 2016.



President Royal Academy of Engineering UK, Dame Ann Dowling with WFEO President Dr. Marlene Kanga at Engineering a Better World Conference, London, September 2016.



WFEO meetings with International Centre for Engineering Education (ICEE), Tsinghua University, Beijing, September 2017.



WFEO President Dr. Marlene Kanga speaks at the annual conference of the International Federation of Consulting Engineers (FIDIC), Jakarta, October 2017.



WFEO President Dr. Marlene Kanga at the ISTIC Conference on Women in Science Technology and Innovation, Kuala Lumpur, May 2017.



WFEO Delegates Mr. Reginald Vachon and Dr. Marlene Kanga at the inaugural General Assembly of the International Science Council, Paris, July 2018.



WFEO Committee for Anti-Corruption Chair Eng. Martin Manuhwa speaks at the OECD Integrity Forum, Paris, March 2018.



WFEO attends the Inaugural General Assembly of the International Science Council, Paris, July 2018.

World Engineers Conventions (WEC)

The first World Engineers Convention was held in Hanover (2000), and subsequently in Shanghai (2004), Brasilia (2008), Geneva (2011), Kyoto (2015) and Melbourne (2019). These are the flagship conference events for WFEO and provide high visibility to the work being done by the Federation and its members.



Poster for World Engineers Convention (WEC2008) Brasilia, Brazil

Les Conventions mondiales des ingénieurs (WEC)

La première Convention mondiale des ingénieurs s'est tenue à Hanovre (2000), puis à Shanghai (2004), Brasilia (2008), Genève (2011), Kyoto (2015) et Melbourne (2019). Il s'agit des conférences phares de la FMOI, qui donnent une grande visibilité au travail accompli par elle et par ses membres.



Poster for World Engineers Convention (WEC2011), Geneva, Switzerland



Banner for World Engineers Convention, Geneva, 2011.



World Engineers Convention (WEC2011), Opening Ceremony, Geneva, 2011.



World Engineers Convention (WEC2011), Opening Ceremony, Geneva, 2011.



World Engineers Convention (WEC2011), Opening Ceremony, Geneva, 2011.



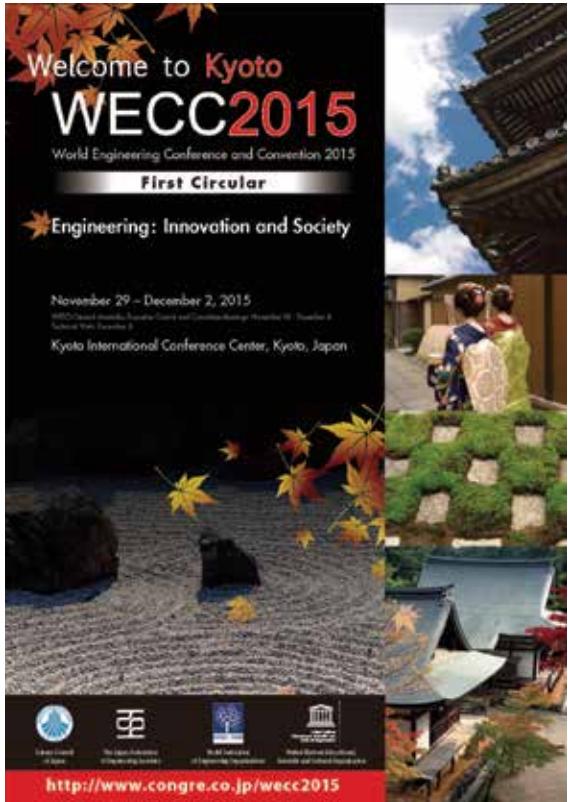
Engineers Australia bid document to host WEC2019 in Australia, 2013.



General Assembly meeting at World Engineers Convention, Kyoto, 2015.



The WEC Trophy with the emblems of hosting members being handed over to Engineers Australia by the Science Council of Japan, Kyoto, 2015.



Poster for World Engineers Convention, WECC2015, Kyoto, 2015.



Opening of World Engineers Convention, Kyoto, 2015.



Delegates at WECC2015 Banquet, Kyoto, 2015.

Declarations of the World Engineers Conventions / Déclarations des Conventions mondiales des ingénieurs



World Engineers Convention
Declaration Hanover 2000.

The Shanghai Declaration on Engineering and the Sustainable Future
The World Federation of Engineering Organizations

PREAMBLE

Three thousand engineers from 70 countries and regions came together for the World Engineers' Convention on November 2-6, 2004. WEC2004 was sponsored by the World Federation of Engineering Organizations (WFEO) and co-sponsored by the United Nations Economic Commission for Asia and the Pacific (UN-ECA), Chinese Academy of Engineering (CAE), Chinese Association for Science and Technology (CAST), Chinese Academy of Engineering (CAE), and Shanghai Municipal Government. The theme of WEC2004 was "Engineers Shape the Sustainable Future". Many important issues related to this theme were addressed in the plenary and five parallel sessions of the Convention and the virtual fairs associated with WEC2004.

PROCLAMATION

Engineering and technology are vitally important in addressing poverty reduction, sustainable development and the other UN Millennium Development Goals, and need to be recognized as such. We, the participants at WEC2004, proclaim the following:

The Challenge

1. The Situation

While having made encouraging progress in economic and other respects, the world today is facing many severe challenges. The environment continues to deteriorate, natural and man-made disasters are more frequent, some natural resource uses approach critical points, and the gap between rich and poor, between developed and developing nations, continue to widen. All these factors are a major threat to global prosperity, security, stability and sustainable development.

2. The Mission

1. The Engineering Community

The bounden duty of engineers is to build a better life for society. To this end, engineers should dedicate themselves to developing a better world together with the public and private sectors, non-governmental and intergovernmental organizations, through the application of knowledge to convert resources into products and services. In this process, engineers should be aware of the need to achieve a balance between resource use and the needs of future generations, maintaining the environment and ecosystems to promote sustainable development. The need to develop goals and measurable indicators toward these goals.

World Engineers Convention
Declaration Shanghai 2004.



The Brasilia Declaration: Engineering and Innovation for Development with Social Responsibility

World Engineers' Convention, Brasilia, 9 December 2008

PREAMBLE

The 2008 World Engineers' Convention was held in Brasilia on 9-11 December 2008, and brought together the hundred engineers from 34 countries. WEC2008 was organized by the Brazilian Society of Engineers (SBC) and co-organized by the Brazilian Institute of American Architects (IBRAQ), the Brazilian Association of Engineering Consultancies (ABEC), and the United Nations Economic Commission for Latin America and the Caribbean (ECLAC), and co-sponsored by the United Nations Educational, Scientific and Cultural Organization (UNESCO). The main theme of WEC2008 was "Engineering, Innovation and Social Responsibility: Engineering for the Future". The Convention included a technical exhibition and a high-level symposium with 150 speakers. It also included a "Young Engineers' Forum" and a "Women in Engineering" forum. The symposium, which had 100 speakers, included the following topics: "Energy and Environment", "Infrastructure and Sustainable Development", and "Globalization and Professional Ethics". More than 700 papers were presented on these topics, and related areas were discussed. WEC2008 was accompanied by ExpoWECC2008 on the theme "Energy for the Future". This was the third WEC, following WEC2000 in Shanghai and WEC2004 in Hanover, and preceded the next WEC, to be held in Geneva in 2011.

The purpose of this Declaration is to present them to the engineering and related communities, governments and national, international, national, regional and international organizations, outlining their intent and calling for action on the discussions being organized. This Declaration is also intended to serve as a call to action for governments and international engineering institutions and programmes. This is also reflected in the preface of the UNESCO report, "Engineering, Science and Challenges for Development" – the first ever international Report on engineering, issued at that Convention.

DECLARATION

We, the participants at WEC2008, emphasize engineering as the driver of technological innovation and of vital importance in technical, social, moral and economic development.

World Engineers Convention
Declaration Brasilia 2008.



Geneva - December 7, 2011

Geneva Declaration – Call for Action

Challenge

Given the world's growing demand for energy services and at the same time diminishing certain renewable and green energy contributions to global energy mixtures challenges today. The world population – UN estimates 6.8 billion people in 2009, growing economies in developing countries, particularly China and India, and the increasing use of fossil fuels for energy generation, are the main drivers of this trend. An increase in energy consumption by about 40% is expected by the IEA current projection scenario. Today, nearly half of the world's total energy demand, without nuclear reactors and despite the Intergovernmental Panel on Climate Change (IPCC) suggested target for long-term mitigation of climate change, C2, has been met by fossil fuels. Renewable energy has increased and will continue to do so, but despite the significant improvements in efficiency, fossil fuel energy sources are reduced, and engineers have tried to find options in the environment resulting from climate change.

There can be enough energy

The total energy from our known sources ensure the planet enough to fulfill the needs of the population in the current century. Alternatively renewable energy is abundant and fit for account the world's energy consumption. However, the world's energy consumption is increasing rapidly and the available energy sources are finite. Therefore, new technologies and new ways of using energy are needed to demonstrate feasibility. Today, oil, gas and coal provide 80% of net energy requirement, while most of the remainder is supplied by biomass, nuclear and hydro power. Technically, almost all energy can be produced from biomass.

Some of the technologies needed are very promisingly stable. In particular we have not yet learned to harness the abundant solar energy at a competitive cost, although costs are coming down fast. In addition, biomass energy is promising, especially large scale biofuels, especially those plants with high energy content with regard to energy density, which are able to compete with fossil fuels in terms of energy content and long term life times, as well as development of installations to encourage infrastructures investment.

In addition to the increased share of renewable energy in the world's energy mix, energy efficiency increases will have to reduce the energy intensity of global economies and, therefore, slow down the increase of primary energy demand.

Available knowledge and technologies

The use of fossil energy demands the model of the global CO₂ emissions. According to the UNFCCC scenario, a rise of three degrees Celsius is avoidable to limit greenhouse gas emissions from the energy sector. End-use energy efficiency, energy conservation and energy efficiency are the most effective measures to combat climate change. Other technologies and new power are needed to the deployment for the long term. Future technologies need to serve as a step-gate technology in the future they have to be more energy efficient. Renewable technologies – hydro, solar, biomass, geothermal, wind, thermal, other renewables, and enhanced fossil fuel technologies – are promising future technologies. Amongst them, hydro, biomass, geothermal and wind technologies – e.g. planned hydro and improved wind, biomass, turbines transportation – are key to the management of intermittent renewable energy sources. The latter are often subject to fluctuations or are short-term, the former are more predictable. The use of fossil fuels, especially coal, is still dominant in the energy storage (DCS), is being developed and demonstrated at large scale. Today, wind and concentrated solar thermal power are closer to being cost competitive in selected countries as it requires other energy sources are more expensive.

World Engineers Convention
Declaration Geneva 2011.



The participants at the 5th World Engineering Conference and Convention on "Engineering: Innovation and Society", held in Kyoto, Japan, from November 29 to December 3, 2010, discussed the current state, future, and expected innovations of the various fields of engineering in regard to the problems facing humanity. The Conference was organized by the World Federation of Engineering Organizations (WFEO) and the Japanese Society of Engineers (JSE).

Considering that:

- the United Nations has unanimously adopted a set of Sustainable Development Goals and an associated 2030 Development Agenda to address extreme poverty and grand challenges of development;
- the development of agriculture is important for solving the problems of poverty in less developed communities and of malnutrition across many regions;
- to meet world's future energy demand, it is necessary to pursue diversified safe, inexpensive and stable energy sources including natural energy and biomass energy which currently comprises roughly 10% of the total energy production;
- global warming is steadily increasing, causing an increase in the size of typhoons and hurricanes and more frequent heavy rains and droughts. In addition to tornadoes and strong winds;
- the atmosphere is contaminated by countless man-made substances such as sulfur, nitrogen oxide, and fine particulates, which have a major effect on human health;

World Engineers Convention
Declaration Kyoto 2015.



The Abuja Declaration: WFEO, FAEO and other engineering institutions in Africa, December 2013.



Banner for WECSI 2014, hosted by Nigerian Society of Engineers, 2014.

WFEO and Africa

WFEO is committed to building capacity for engineering in Africa. The Abuja Declaration in December 2013 has been an important catalyst for capacity building in the continent. This has resulted in the annual African Engineering Week, led by UNESCO, WFEO and the Federation of African Engineering Organizations (FAEO). Further capacity building efforts are in progress to support the development of professional engineering institutions and accreditation bodies that will be future members of WFEO. The exchange of experiences and opportunities provided to the leaders of member institutions has also improved their capacity to become more effective in contributing to important national issues relating to engineering.

La FMOI et l'Afrique

La FMOI s'est engagée à renforcer les capacités d'ingénierie en Afrique. La Déclaration d'Abuja de décembre 2013 a été un signal important en faveur du renforcement des capacités sur le continent. Il en a résulté la Semaine de l'ingénierie en Afrique, organisée chaque année par l'UNESCO, la FMOI et la Fédération des organisations d'ingénieurs en Afrique (FAEO). D'autres efforts de renforcement des capacités sont en cours pour soutenir le développement des institutions professionnelles d'ingénierie et des organismes d'accréditation qui seront les futurs membres de la FMOI. L'échange d'expériences et les possibilités offertes aux dirigeants des institutions membres a également amélioré leur capacité de contribuer plus efficacement à d'importantes questions nationales liées à l'ingénierie.



Eng. Mustafa Shehu, President of Nigeria Society of Engineers and Federation of African Engineering Organizations, speaks at opening of Africa Engineering Week, Nigeria, 2016.



Eng. Julius Riungu, President of the Federation of African Engineering Organizations, speaks at opening of Africa Engineering Week, Rwanda, 2017.



Delegates at 3rd WFEO UNESCO FAEO Africa Engineering Week, Nigeria, 2016.



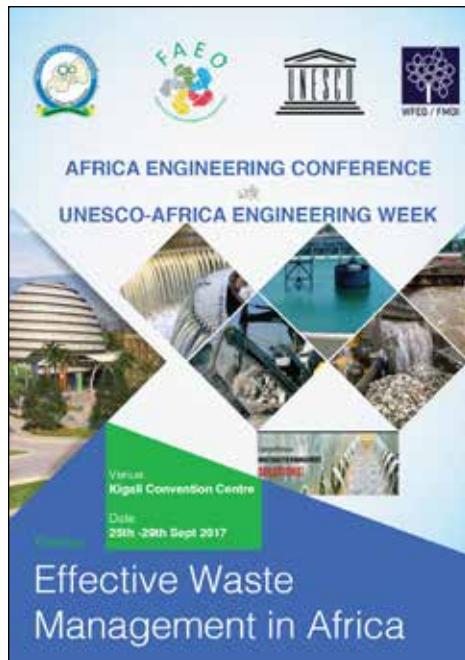
Dr. Enang Moma, UNESCO, speaks at opening of Africa Engineering Week, Nigeria, 2016.



Delegates at 4th Africa Engineering Week, Kigali, 2017.



First African Women Engineering Conference organized at the Africa Engineering Week, Mombasa, Kenya, 2018.



Poster for Africa Engineering Week 2017.



Chairman of the Committee on Engineering Capacity Building Yashin Brijmohan, National Programme Officer in Science and Gender at UNESCO Regional office for East Africa Ms. Alice Ochanda and engineering leaders in Africa with the Mombasa Declaration, Africa Engineering Week 2018.



The Mombasa Declaration 2018.



Poster for Africa Engineering Week 2018.



Chair of the Committee on Women in Engineering Valerie Agberagba, President of the Institution of Engineers of Kenya Collins Juma, President of the Nigerian Society of Engineers Adekunle Mokoulu and FAEO Past President Mustapha Shehu

WFEO and Small Island Developing States

WFEO is committed to capacity building efforts in engineering in the Small Island Developing States (SIDS) through its national members from Fiji, Mauritius and in the Caribbean, among others. These members are among those affected by climate change and the impact of weather related natural disasters.

La FMOI et les Petits États insulaires en développement

La FMOI s'est engagée à renforcer les capacités en ingénierie dans les Petits États insulaires en développement (PEID) par l'intermédiaire de ses membres nationaux pour Fidji, Maurice et dans les Caraïbes notamment. Ces membres font partie de ceux qui sont touchés par les changements climatiques et par les catastrophes naturelles liées aux conditions météorologiques.



Institution of Engineers Mauritius 70th Anniversary conference 2018.



Right: WFEO Executive Director Mr. Jacques de Méreuil participates in the SIDS Knowledge Day, UNESCO, Paris, 2018.



Left: WFEO President Dr Marlene Kanga participates in the International Engineering Symposium on Sustainable Infrastructure, Suva, Fiji, April 2018.



Students with the President of the Republic of Fiji and WFEO President Dr Marlene Kanga at International Engineering Symposium, Suva, Fiji, April 2018.



Delegates at International Engineering Symposium, Suva, Fiji, April 2018.



Mr. Pratarp Singh, Past President of Fiji Institution of Engineers and Past President of South Pacific Engineers Association, speaks on the importance of sustainable infrastructure in Fiji, Global Engineering Congress, London, October 2018.



Institution of Civil Engineers (ICE) West Indies Local Association (ICEWILA) Disaster Resilient Infrastructure Symposium, August 2018.

Poster for International Conference on Disaster Resilient Infrastructure hosted by Institution of Civil Engineers, West Indies, August 2018.





Delegates at International Engineering Symposium on Sustainable Infrastructure, Suva, Fiji, April 2018.



Participants at Institution of Civil Engineers (ICE) West Indies Local Association (ICEWILA) Disaster Resilient Infrastructure Symposium, August 2018.

WFEO Code of Ethics

The ethical practice of engineering has been a key objective of the World Federation of Engineering Organizations since the beginning.

WFEO commenced work on a Model Code of Ethics under the supervision of Donald Laplante (Canada), David Thom (New Zealand), Bud Carroll (USA), and others. It was expected that this model code would be used to define and support the creation of codes in member institutions. The Code of Ethics was adopted in August 2001.

The Model Code of Ethics is considered to be a minimum code of conduct which requires

engineers to be competent and current in their area of practice and to consider the impact of their work on the environment.

The articles of interpretation of the code cover sustainable development, protection of the public and the environment, the need for knowledge and competence, for engineers to be faithful agents of their clients and employers, the importance of fairness and integrity for professional accountability and leadership.



World Federation of Engineering Organizations Fédération Mondiale des Organisations d'Ingénieurs

WFEO MODEL CODE OF ETHICS

As engineering professionals, we use our knowledge and skills for the benefit of world, in order to create engineering solutions for a sustainable future. In doing so, we strive to serve our communities ahead of any personal or sectional interests.

To do so successfully requires ethical behavior. Simply put, ethical behavior is about making choices. In line with our obligations as professionals, we wish to ensure that the choices that we make as engineers enable us to do things which are 'good'. In addition, we wish to ensure that we do these 'good things' in a manner which is 'right'.

The WFEO Model Code of Ethics is designed to assist member organisations in guiding ethical behavior by formulating their own Codes of Ethics. A Code of Ethics must do two things. First, it must provide guidance on the **Values** we must adhere to in professional practice if we are to make the 'good' choices referred to above. Second, a Code of Ethics must set out the **Principles** we must follow in applying those values, in order to do things in a manner which is right.

The exercise of professional judgment is often difficult and complex. The inherent nature of 'professionalism' is that as engineers we always have a duty to others and an obligation to 'do the right thing'. Exactly who the 'others are', and what the 'right thing' is, will be a matter of continual balance. We are expected to get the balance right. We also know that each situation may be different, requiring specific choices depending on the circumstances.

A Code of Ethics will not give us all the answers nor tell us what to do under all circumstances. Ethical behaviour reflects an individual's perceptions of right and wrong, guided by their conscience and the values they adhere to. In drafting the WFEO Model Code of Ethics, considerable care has been taken to try and get the balance of obligations right, without making statements that could be misleading (and cause problems for members) when interpreted narrowly.

Imposition of duties upon members which they cannot realistically satisfy and the inclusion of provisions which restrain commercial activity and have a negative effect is not the function of a code of ethics.

The values and principles in the WFEO Model Code of Ethics are those which are deemed to be applicable universally to the practice of engineering. The WFEO Model Code of Ethics provides a framework for analysis and decision making about the appropriateness of particular conduct or behaviour.

As engineering practitioners our (preferred) future is dependent on engagement and trust from our community. An engineer who practises in accordance with the Model Code of Ethics and the Guidelines will meet these community expectations of responsibility.

The general question of the duties engineering practitioners owe to the community are best captured in an ethics awareness program. Member organisations of WFEO are encouraged to develop a Code of Ethics for their organisation based on the values and principles set down in the Model Code and to impart the values and principles that individuals need to assist their decision making process through ethics support programs.

The Guidelines appended to the Model Code set out the principles which underpin each value and give examples of each principle in practice.

Le Code-type de déontologie de la FMOI

La pratique éthique des ingénieurs a été un objectif clé de la Fédération mondiale des organisations d'ingénieurs depuis ses débuts.

La FMOI a commencé à élaborer un code-type de déontologie sous la supervision de Donald Laplante (Canada), David Thom (Nouvelle-Zélande), Bud Carroll (États-Unis) et d'autres. Le but de ce document était d'être utilisé pour rédiger des codes propres aux institutions membres. Le Code d'éthique a été adopté en août 2001.

Ce modèle doit fournir un code de conduite minimal qui exige des ingénieurs qu'ils soient compétents et à jour de compétences dans leur domaine de spécialité, et qu'ils tiennent compte de l'impact de leur travail sur l'environnement.

Les articles d'interprétation du code portent sur le développement durable, la protection du public et de l'environnement, le besoin de connaissances et de compétences, la nécessité pour les ingénieurs de fournir un service intégral à leurs clients et à leurs employeurs, l'importance de l'équité et de l'intégrité pour la responsabilité et le leadership professionnels.

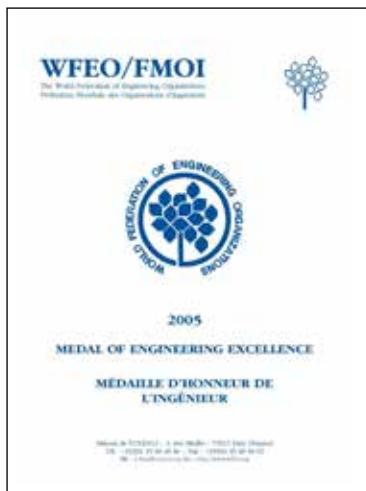


WFEO Awards

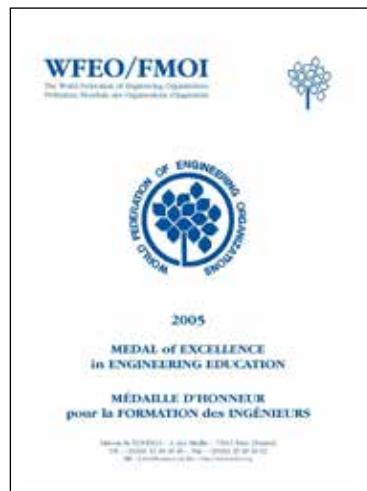
WFEO has developed a number of awards which recognise the accomplishments of individuals and organizations in contributing to engineering. The list of awards and recipients is shown here. In 2018, two new awards were established as part of the WFEO 50th Anniversary celebrations: the Dr. Zuheir Alami Award for Innovation in Engineering and the GREE Women in Engineering Award.

Les prix de la FMOI

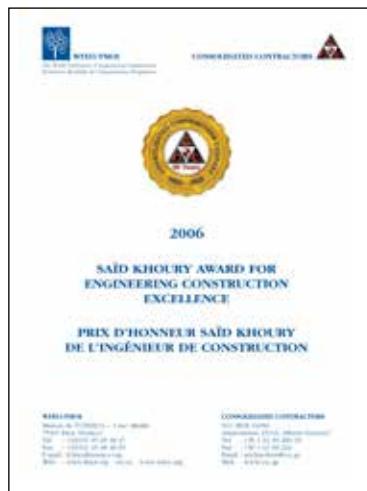
La FMOI a conçu un certain nombre de prix qui récompensent les réalisations d'individus ou d'organisations qui ont contribué à l'ingénierie. La liste des prix et des récipiendaires est présentée ici. En 2018, deux nouveaux prix ont été créés dans le cadre des célébrations du 50e anniversaire de la FMOI : le Prix Zuheir Alami pour l'innovation en ingénierie, et le prix GREE des femmes ingénieurs.



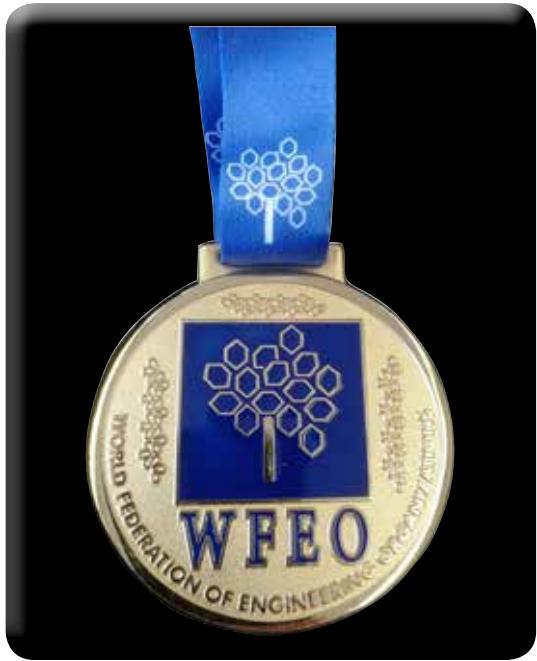
2005 Medal for
Engineering Excellence



2005 Medal of Excellence
in Engineering Education



2006 Said Khoury Award for
Engineering Construction Excellence



2018 GREE
WFEO Women in
Engineering Award



Lord Robert Mair, President of the Institution of Civil Engineers at the WFEO 50th Anniversary Awards Ceremony and Gala Dinner, London, 2018.



Presentation of inaugural Dr. Zuheir Alami Award for Engineering Innovation, London, 2018.



Presentation of inaugural GREE Women in Engineering Award, London, 2018.

WFEO Award Winners / Lauréats des Prix de la FMOI

YEAR	COUNTRY	TITLE	NAME	NAME OF THE AWARD
1989	JAPAN	DR	YOSHIKI	WFEO Medal of Engineering Excellence
1993	RUSSIA	MR	ISHLINSKY A.	Silver Gilt Medal - President 1987-1991
1995	CHINA	PR	KUEN KAO Charles	WFEO Medal of Engineering Excellence
1995	TUNISIE	ENG	BEN JEMAA Sadok	WFEO Medal of Engineering Excellence
1997	SOUTH AFRICA	MR	BURLAND B. John	WFEO Medal of Engineering Excellence
1997	GERMANY	MR	BECKER Gerhard	WFEO Medal of Engineering Excellence
1997	USA	MR	CARROLL William J.	WFEO Medal of Engineering Excellence
1999	AUSTRALIA	PR	GREEN Martin	WFEO Medal of Engineering Excellence
1999	UK	PR	LEVY Jack	WFEO Medal of Excellence in Engineering Education
2001	RUSSIA	MR	CHICHINADZE A.V.	WFEO Medal of Engineering Excellence
2001	MALAYSIA	MR	SABBAGH Hassib J.	WFEO Medal of Engineering Excellence
2001	CHINA	PR	ZHANG WEI	WFEO Medal of Excellence in Engineering Education
2001	ARGENTINA	MR	BAUER Conrado	Medal for outstanding services to WFEO
2001	USA	MR	POIROT Jim	Medal for outstanding services to WFEO
2001	SWITZERLAND	MR	HUGI Hans	Medal for outstanding services to WFEO
2001	UNITED KINGDOM	MR	MACKENZIE John	Medal for outstanding services to WFEO
2003	INDIA	MR	MASHELKAR Ragunath Anant	WFEO Medal of Engineering Excellence
2003	HONG KONG	MR	CHEUNG Yau Kai	WFEO Medal of Excellence in Engineering Education
2003	MALAYSIA	TEAM	Dato Ir. Hj. Keizrul Bin Abdullah	Hassib Sabbagh Award for Engineering Construction Excellence

WFEO Award Winners / Lauréats des Prix de la FMOI

YEAR	COUNTRY	TITLE	NAME	NAME OF THE AWARD
2005	INDIA	Dr	PATEL C	WFEO Medal of Engineering Excellence
2005	INDIA	Dr	RAMACHANDRAN Arcot	WFEO Medal of Excellence in Engineering Education
2005	USA	Dr	AMADEI Bernard J. - Engineers without Borders	Hassib Sabbagh Award for Engineering Construction Excellence
2006	USA	P.E	EDWARDS Curtis L. F.	Saïd Khoury Award for Engineering Construction Excellence
2007	GEORGIA	PR	KASHAKASHVILI Guram	WFEO Medal of Engineering Excellence
2007	HONG KONG	PR	HSIN Kang Chang	WFEO Medal of Excellence in Engineering Education
2007	INDIA	TEAM	RAMAKRISHNA Anumolu - Larsen & Toubro Ltd	Hassib Sabbagh Award for Engineering Construction Excellence
2007	HONG KONG	TEAM	OVE ARUP & PARTNERS HONG KONG LTD	Saïd Khoury Award for Engineering Construction Excellence
2009	INDIA	MR	SRINIVASAN S.V.	WFEO Medal of Engineering Excellence
2009	CHINA	MR	QUIA	WFEO Medal of Excellence in Engineering Education
2009	CHINA	MR	BAO	Hassib Sabbagh Award for Engineering Construction Excellence
2009	USA	TEAM	BIODEAU Denis R. - Orange County Water District	Saïd Khoury Award for Engineering Construction Excellence
2011	POLAND	PR	Włodzimierz Miszalski	WFEO Medal of Excellence in Engineering Education
2011	USA	DR	Bill Salmon	WFEO Medal of Engineering Excellence
2011	USA	DR	Riad Zakhem	Hassib Sabbagh Award for Engineering Construction Excellence

WFEO Award Winners / Lauréats des Prix de la FMOI

YEAR	COUNTRY	TITLE	NAME	NAME OF THE AWARD
2011	BRAZIL	MR	Jorge Spitalnik	Medal for outstanding services to WFEO
2011	USA	DR	Bill Salmon	Medal for outstanding services to WFEO
2011	SWITZERLAND	PR	Jean-Claude Badoux	Medal for outstanding services to WFEO
2011	AUSTRALIA	MR	Barry Gear	Medal for outstanding services to WFEO
2011	INDIA	MR	B.J. Vasoya	Medal for outstanding services to WFEO
2013	HONG KONG	PR	Ching Chuen Chan	WFEO Medal of Engineering Excellence
2013	CHINA	PR	Xila Liu	WFEO Medal of Excellence in Engineering Education
2013	UNITED KINGDOM	TEAM	John Jo Hammill	Hassib Sabbagh Award for Engineering Construction Excellence
2015	CHINA	MR	Lu Youmei	WFEO Medal of Engineering Excellence
2015	CANADA	PR	Chan Wirasinghe	WFEO Medal of Excellence in Engineering Education
2015	CHINA	TEAM	Wu Shiyong	Hassib Sabbagh Award for Engineering Construction Excellence
2017	NIGERIA	MR	Idefayo Akintunde	WFEO Medal of Engineering Excellence
2017	INDIA	DR	B.V.A. Rao	WFEO Medal of Excellence in Engineering Education
2017	PORTUGAL	TEAM	Mota Engil	Hassib Sabbagh Award for Engineering Construction Excellence
2018	SPAIN	MS	Maria Teresa Estevan Bolea	GREE Women in Engineering Award
2018	USA	DR	William Ranson	Dr. Zuheir Alami Award for Engineering Innovation

WFEO Standing Technical Committees

WFEO established Standing Technical Committees to provide the leadership for technical issues in engineering.

The Committee on Engineering and the Environment was established at the General Assembly in Jakarta in 1979, hosted by the national member for Argentina. Conrado Bauer was the inaugural Chair. The first meeting was held in Caracas Venezuela on 13-14 October 1980. UNESCO was invited to nominate a representative with observer status.

Other early technical committees were the Committee on Energy and the Committee on Engineering Capacity Building. Each Committee is hosted by a national member. In January 2018, WFEO had 10 Standing Technical Committees.

Les Comités techniques permanents de la FMOI

La FMOI a créé des comités techniques permanents chargés de tenir un rôle moteur sur les principales questions techniques en ingénierie.

Le Comité Ingénierie et environnement a été créé à l'Assemblée générale de Djakarta en 1979, à l'invitation du membre national pour l'Argentine. Conrado Bauer en a été le premier président. La première réunion s'est tenue à Caracas (Venezuela) les 13 et 14 octobre 1980. L'UNESCO a été invitée à désigner un représentant ayant le statut d'observateur.

Les autres premiers comités techniques à voir le jour furent le Comité Énergie et le Comité Renforcement des capacités. Chaque comité a été accueilli par un membre national. En janvier 2018, la FMOI avait 10 comités techniques permanents.



WFEO is committed to advancing the UN Sustainable Development Goals through engineering. All WFEO Standing Technical Committees focus on advancing one or more of these Goals.

Host Years	Committee	Host member
Committee on Engineering and the Environment		
1979-1987	Committee on Engineering and the Environment	Argentine Union of Engineering Associations (Founding Chair)
1987-1991	Committee on Engineering and the Environment	Not available
1991-1999	Committee on Engineering and the Environment	Institution of Professional Engineers, New Zealand
1999-2007	Committee on Engineering and the Environment	Institution of Engineers India
2007-2015	Committee on Engineering and the Environment	Engineers Canada
2015-	Committee on Engineering and the Environment	Institution of Engineers UK
Committee on Education in Engineering		
1986-1989	Committee on Education and Training	Institution of Engineers India
1989-1997	Committee on Education and Training	Argentine Union of Engineering Associations
1997-2003	Committee on Education and Training	Institute of Continuing Engineering Education, Hungary
2003-2011	Committee on Education and Training	Polish Federation of Engineering Associations, Poland
2011-2019	Committee on Education in Engineering	Order of Engineers and Architects of Beirut, Lebanon
Committee on Information and Communication		
1995-1999	Committee on Information and Communication	French Council of Engineers and Scientists (CNISF)
1999-2007	Committee on Information and Communication	The Tunisian Order of Engineers
2007-2015	Committee on Information and Communication	China Association for Science and Technology (CAST)
2015-	Committee on Information and Communication	Institution of Engineers India
Committee on Energy		
2003-2011	Committee on Energy	FEBRAE, Brazil (Founding Chair)
2011-2019	Committee on Energy	American Association of Engineering Societies, USA

Host Years	Committee	Host member
Committee on Engineering Capacity Building		
2003-2011	Committee on Engineering Capacity Building	American Association of Engineering Societies (AAES) (Founding Chair).
2011-2019	Committee on Engineering Capacity Building	Engineering Council of South Africa
Committee on Engineering for Innovative Technologies		
1996-2007	Committee on Technology	American Association of Engineering Societies (AAES) (Founding Chair).
2007-2015	Committee on Engineering for Innovative Technologies	Institution of Engineers India
2015-	Committee on Engineering for Innovative Technologies	China Association for Science and Technology (CAST)
Committee on Anti-Corruption		
2007-2011	Committee on Anti-Corruption	The Tunisian Order of Engineers (Founding Chair)
2011-2019	Committee on Anti-Corruption	Engineering Council of Zimbabwe
Committee on Women in Engineering		
2007-2011	Committee on Women in Engineering	Institution of Engineers and Scientists France (IESF) (Founding Chair)
2011-2015	Committee on Women in Engineering	Kuwait Society of Engineers
2015-	Committee on Women in Engineering	Nigerian Society of Engineers
Committee on Disaster Risk Management		
2009-2017	Committee on Disaster Risk Management	Science Council of Japan (Founding Chair)
2017-	Committee on Disaster Risk Management	Peruvian Engineers Association (CIP)
Committee on Young Engineers/Future Leaders		
2011-2019	Committee for Young Engineers/Future Leaders	Kuwait Society of Engineers (Founding Chair)
WFEO UN Relations Committee		
2011-2019	WFEO UN Relations Committee Recognised formally in October 2018	American Association of Engineering Societies

WFEO Committee on Engineering and the Environment

The WFEO Committee for Engineering and Environment was established by WFEO Past President Conrado Bauer in 1979. The Committee leads the engagement of the Federation at the United Nations Framework Convention for Climate Change (UNFCCC), organised side events at the meetings of the Committee of Parties (COP) and provides leadership for the work of engineers in addressing climate change. The Committee has also developed a Model Code of Practice: Principles of Climate Change Adaptation for Engineers.

Le Comité Ingénierie et Environnement

Le Comité de la FMOI pour l'Ingénierie et l'environnement a été créé en 1979 par Conrado Bauer, ancien président de la FMOI. Le Comité conduit la participation de la Fédération à la Convention-cadre des Nations unies sur le changement climatique (CCNUCC) : il a organisé des manifestations parallèles aux réunions de la Conférence des Parties (COP), et anime le travail des ingénieurs dans le domaine du changement climatique. Le Comité a également élaboré un Code type de déontologie : *Principes de l'adaptation aux changements climatiques pour les ingénieurs*.



WFEO Committee on Engineering and the Environment meeting, Geneva, September 2011.



WFEO Committee on Engineering and the Environment meeting, Kyoto, December 2015.



WFEO Committee for Engineering and the Environment meeting, Lima, December 2016.



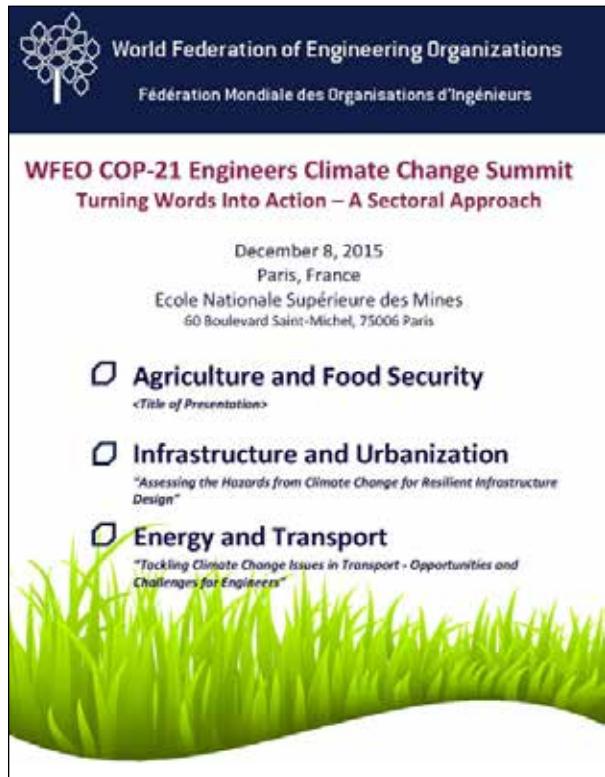
David Lapp, Engineers Canada, speaks at the COP21 side event hosted by the WFEO Committee on Engineering and the Environment, Paris, December 2015.



WFEO Committee on Engineering and the Environment Chair Darrel Danyluk and WFEO President Jorge Spitalnik at the COP21 side event, Paris, December 2015.



WFEO Past President Jorge Spitalnik speaking at the COP21 side event, Paris, December 2015.



The image is a promotional flyer for the "WFEO COP-21 Engineers Climate Change Summit". The top half has a dark blue header with the organization's name in English and French. The main title is "WFEO COP-21 Engineers Climate Change Summit" followed by the subtitle "Turning Words Into Action – A Sectoral Approach". Below this, the date "December 8, 2015" and location "Paris, France" are listed, along with the address "Ecole Nationale Supérieure des Mines 60 Boulevard Saint-Michel, 75006 Paris". The lower half features three circular icons with checkmarks, each representing a sector: "Agriculture and Food Security", "Infrastructure and Urbanization", and "Energy and Transport". Each sector has a small descriptive text below it. The background of the lower half features a graphic of green grass and a white path.

WFEO Committee Engineering and the Environment flyer for side event at COP-21, Paris, December 2015.



Model Code of Practice,
December 2015.



Delegates at the COP21 side event hosted by the WFEO Committee on Engineering and the Environment, Paris, December 2015.

WFEO Committee on Education in Engineering

The Committee on Education in Engineering is one of the earlier committees that was established and was formerly called the Committee on Education and Training (CET) until 2007. The Committee is focussed on sustainability, mobility and university-industry relations. The global conference of engineering education has been held biennially to share experiences and practices in engineering education. The Committee has been hosted by the Order of Engineers and Architects of Beirut since 2011.

Le Comité Éducation en ingénierie

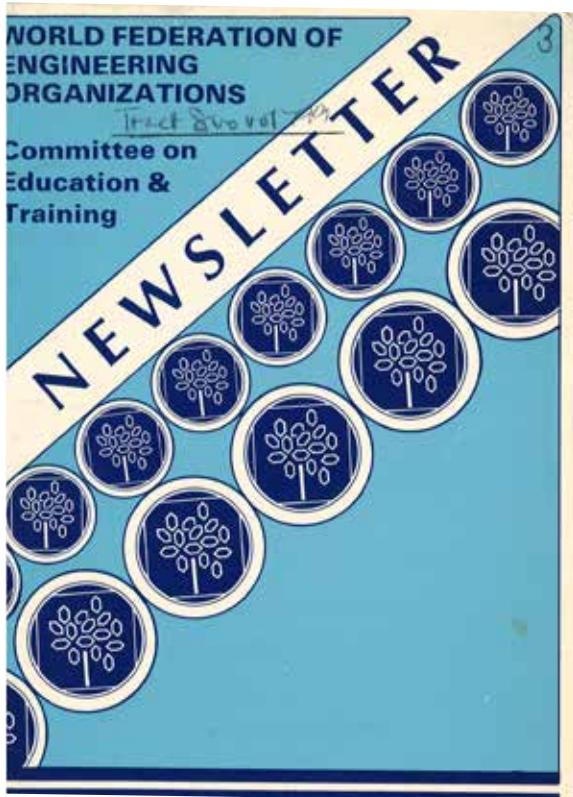
Le Comité Éducation en ingénierie est l'un des premiers comités à avoir été créés, et s'appelait auparavant le Comité pour l'Education et la formation jusqu'en 2007. Le Comité se concentre sur la soutenabilité, la mobilité et les relations université-industrie. La Conférence mondiale sur la formation des ingénieurs s'est tenue tous les deux ans pour partager les expériences et les pratiques en matière de formation des ingénieurs. Le Comité est accueilli par le membre libanais de la FMOI, l'Ordre des Ingénieurs et Architectes de Beyrouth depuis 2011.



Committee on Education in Engineering meeting in Geneva, 2011.



Committee on Education in Engineering meeting in Lima, Peru, 2016.



Committee on Education and Training Newsletter, Hosted by the Institution of Engineers India, 1986.



Eng. Abdul Menhem Alameddine, Chair Committee on Education in Engineering, opens the World Congress on Engineering Education in Beirut, 2015.

WFEO Committee on Information and Communication

The Committee on Information and Communication was established in 1995 by the French Council of Engineers and Scientists (CNISF). It was subsequently hosted by the Tunisian Order of Engineers from 1999-2007 and the China Association for Science and technology (CAST) from 2007-2015. It is currently hosted by the Institution of Engineers India from 2015 onwards. The goal of the Committee is to lead the implementation of Information and Communication Technology (ICT) for global applications especially in developing countries for sustainable development.

Le Comité Information et Communication

Le Comité Information et communication a été créé en 1995 par la Société des ingénieurs et scientifiques de France (CNISF). Il a ensuite été accueilli par l'Ordre des Ingénieurs Tunisiens (OIT) de 1999 à 2007 et par l'Association chinoise pour la science et la technologie (CAST) de 2007 à 2015. Il est actuellement hébergé par l'Institution of Engineers India (IEI), depuis 2015. L'objectif du Comité est de conduire la mise en œuvre des technologies de l'information et de la communication (TIC) pour des applications mondiales, en particulier dans les pays en développement, en vue du développement durable.



Mr. S.S. Rathore, Chair, WFEO Committee on Information and Communication at opening of Seminar on Smart Cities in Ahmedabad, India, November 2016.



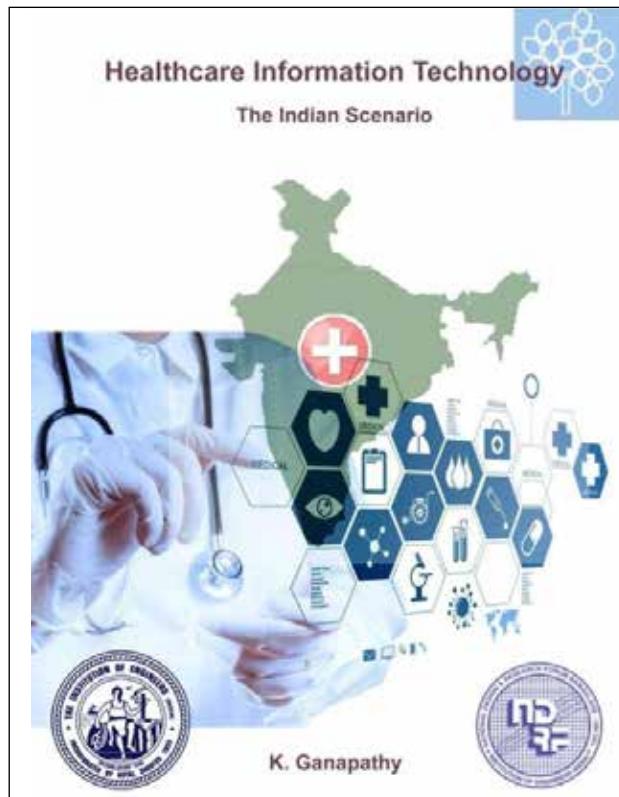
Mr. S.S. Rathore, Chair, WFEO Committee on Information and Communication at opening of Seminar on Internet of Things, Kuala Lumpur, Malaysia, May 2017.



Speakers at WFEO Committee on Information and Communication at Seminar on Internet of Things, Kuala Lumpur, Malaysia, May 2017.



WFEO President Dr. Marlene Kanga speaks at WFEO Committee on Information and Communication Seminar on Smart Cities, Ipoh, Malaysia, July 2018.



Publication on use of ICT in Healthcare in India, 2017.



Young engineer delegates
at WFEO Committee
on Information and
Communication Seminar
on Internet of Things,
Kuala Lumpur, Malaysia,
May 2017.



Delegates at WFEO Committee on Information and Communication Seminar on Smart Cities, Ipoh, Malaysia, July 2018.

WFEO Committee on Energy

The WFEO Committee on Energy was first established in 2003 and hosted by FEBRAE, Brazil, 2003-2011. It is currently hosted by the American Association of Engineering Societies (AAES), the national member for the USA. The Committee is working towards achieving the UN Sustainable Development Goal on Energy (Goal 7) to “Ensure access to affordable, reliable, sustainable and modern energy for all.”

Le Comité Energie

Le Comité Énergie de la FMCI a été créé en 2003 et accueilli par FEBRAE, membre national pour le Brésil, de 2003 à 2011. Il est actuellement accueilli par l'Association américaine des sociétés d'ingénierie (AAES), membre national pour les États-Unis. Le Comité s'efforce d'atteindre l'objectif de développement durable des Nations unies en matière d'énergie (objectif 7), à savoir « Assurer à tous l'accès à une énergie abordable, fiable, durable et moderne ».



WFEO Committee on Energy meeting, Ljubljana, Slovenia, 2012.



WFEO Committee on Energy meeting Lima, Peru, 2016.



WFEO Committee on Energy meeting, Geneva, 2011.



The solar future at the World Future Energy Forum co-organised by the WFEO Committee on Energy, Beijing, 2016.



The future sources of energy at the World Future Energy Forum co-organised by the WFEO Committee on Energy, Beijing, 2016.



Eng. Mustafa Shehu, Nigeria, speaking at the World Energy Future Forum, Beijing, 2016.



Eng. Martin Manuhwa, Zimbabwe, speaking at the World Energy Future Forum, Beijing, 2016.



Executive Vice President Dr Reginald Vachon speaking at the World Energy Future Forum, Beijing, 2016.



Ms Ruomei Li, speaking at the World Energy Future Forum, Beijing, 2016.



Prof. Carsten Ahrens, Germany, speaking at the World Energy Future Forum, Beijing, 2016.



President Elect Dr Marlene Kanga speaking at the World Energy Future Forum, Beijing, 2016.



Delegates at World Energy Future Forum, Beijing, 2016.



President Elect Dr Marlene Kanga speaking at the World Energy Future Forum, Beijing, 2016.

World Federation of Engineering Organisations
WFEO

Standing Committee Energy
Task Group Solar Energy

Study on Solar Energy

Lima 2016

Report on Solar Energy, 2016.

WFEO Committee on Engineering Capacity Building

The WFEO Committee on Engineering Capacity Building was established by the American Association of Engineering Societies (AAES) in 2003. The committee has the goal of building capacity in engineering in Africa and Asia. It has been led by the South African Institution of Civil Engineers (SAICE), which initiated the development of a manual on capacity building in engineering. The Committee is currently led by the Engineering Council of South Africa (ECSA). A key initiative of the Committee is the Africa Engineering Week, which brings together engineering professionals and institutions annually to develop capacity in engineering in Africa.

Le Comité Renforcement des capacités

Le Comité de la FMOI sur le Renforcement des capacités en ingénierie a été créé par l'Association américaine des sociétés d'ingénierie (AAES) en 2003. Le comité a pour objectif de renforcer les capacités en ingénierie en Afrique et en Asie. Il a été dirigé par l'Institution sud-africaine des ingénieurs civils (SAICE), qui a lancé l'élaboration d'un manuel sur le renforcement des capacités en ingénierie. Le Comité est actuellement dirigé par le Conseil sud-africain de l'ingénierie (ECSA). L'une des principales activités du Comité est la Semaine de l'ingénierie en Afrique, qui réunit chaque année des professionnels et des établissements d'ingénierie afin de renforcer les capacités en ingénierie en Afrique.



Committee on Engineering Capacity Building meeting, Delhi, December 2007.



Committee on Engineering Capacity Building meeting, London, October 2018.



Committee on Engineering Capacity Building meeting, London, October 2018.

WFEO Committee on Engineering for Innovative Technologies

The WFEO Committee on Technology (COMTECH) was first established in 1996 hosted by the USA, and chaired by James Poirot. It was hosted by the Institution of Engineers India from 2007-2015 when it became known as the Committee on Engineering for Innovative Technologies. It is currently hosted by the China Association for Science and Technology (CAST), the national member of WFEO from China.



Committee on Engineering for Innovative Technologies meeting, Rome, December 2017.

The goal of the committee is to "identify the next innovative technologies for sustainable development, share the innovative experience in building a sustainable society and enhance national and international collaboration." The committee has focussed on Cloud Computing, Big data, Robotics and the Internet of Things.



WFEO President Dr. Marlene Kanga at opening of World Intelligence Conference, Beijing, May 2017, co-hosted by the Committee on Engineering for Innovative Technologies.

Le Comité Ingénierie et technologies innovantes

Le Comité Technologie (COMTECH) de la FMOI a été créé en 1996, hébergé par les USA et présidé par James Poirot. Il a été accueilli par l'Institution of Engineering India (IEI) de 2007 à 2015, et est alors devenu le Comité Ingénierie et technologies innovantes. Il est actuellement accueilli par l'Association chinoise pour la science et la technologie (CAST), le membre national

de la FMOI pour la Chine. L'objectif du comité est « d'identifier les prochaines technologies innovantes pour le développement durable, de partager des expériences innovantes pour la construction d'une société durable et d'améliorer la collaboration nationale et internationale ». Le comité s'est concentré sur le Cloud computing, les mégadonnées, la robotique et l'Internet des objets.



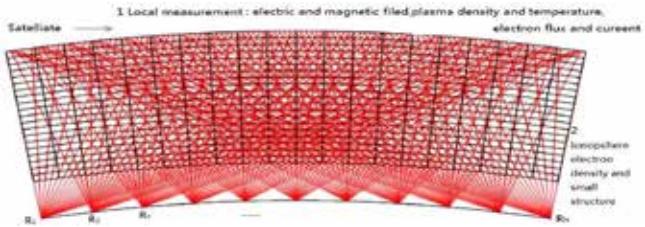
Committee on Engineering for Innovative Technologies meeting, London, October 2018.



WFEO President Elect Prof. Gong Ke at opening of 9th China Cloud Computing Congress, July 2017, co-hosted by the Committee on Engineering for Innovative Technologies.



Committee project on Seismo Ionosphere Observations for Earthquake prediction.



Committee project on Seismo Ionosphere Observations along International Meridian for Earthquake prediction.



Meeting of the Committee on Engineering for Innovative Technologies, Rome, December 2017.



WFEO Committee on Anti-Corruption meeting, Delhi, 2007.



WFEO Committee on Anti-Corruption meeting.
Ljubljana, Slovenia, 2012.



WFEO Committee on Anti-Corruption meeting.
Lima, Peru, 2016.

WFEO Committee on Anti-Corruption

The WFEO Committee on Anti-Corruption was established in 2007 and was first hosted by the Tunisian Order of Engineers, chaired by WFEO Past President Kamel Ayadi (2007-2011). The Committee has been hosted by the Engineering Council of Zimbabwe since 2011. The goal of the Committee is to drive engineering ethics, and openness and transparency through training and action plans for WFEO members and encouraging the use of the ISO 37001 Anti-bribery standard.

Le Comité Anti-corruption

Le Comité Anti-corruption de la FMOI a été créé en 2007 et a été accueilli pour la première fois par l'Ordre des ingénieurs tunisiens (OIT), présidé par l'ancien président de la FMOI Kamel Ayadi (2007-2011). Le Comité est accueilli par le Conseil des ingénieurs du Zimbabwe (ECZ) depuis 2011. L'objectif du Comité est de promouvoir l'éthique en ingénierie, l'ouverture et la transparence, via la formation et les plans d'action des membres de la FMOI, et d'encourager l'utilisation de la norme anti-corruption ISO 37001.



WFEO Committee on Anti-Corruption participates in the International Anti-Corruption Academy, September 2016.



WFEO Committee on Anti-Corruption participates in the World Justice Project, July 2017.



WFEO Committee on Anti-Corruption Chair Eng. Martin Manuhwa, speaks at the OECD Integrity Forum, March 2018.

WFEO Committee on Women in Engineering

The proposal for a Committee on Women in Engineering was first raised at a Symposium on Women in Engineering held in Tunisia in May 2007 and hosted by the national member for Tunisia and the International Network of Women Engineers and Scientists (INWES). The Committee on Women in Engineering was established at the WFEO General Assembly in New Delhi in December 2007 and had its inaugural meeting in Brasilia in December 2008. The Committee was hosted by Ingénieurs et Scientifiques de France (IESF), the French national member of WFEO (2008-2011). The Committee was next hosted by the Kuwait Society of Engineers (2011-2015) and Nigerian Society of Engineers since 2015 onwards.

Le Comité Femmes ingénierues

La proposition de création d'un Comité Femmes ingénierues a été abordée pour la première fois lors d'un colloque sur les femmes ingénierues qui s'est tenu en Tunisie en mai 2007 et qui a été accueilli par l'Ordre des ingénieurs tunisiens et le Réseau international des femmes ingénierues et scientifiques (INWES). Le Comité Femmes ingénierues a été créé lors de l'Assemblée générale de la FMOI à New Delhi en décembre 2007 et a tenu sa réunion inaugurale à Brasilia en décembre 2008. Le Comité a été d'abord accueilli par Ingénieurs et scientifiques de France (IESF), membre national pour la France (2008-2011). Le Comité a ensuite été hébergé par la Société des Ingénieurs de Koweït (KSE) (2011-2015) et la Société des Ingénieurs du Nigéria (NSE) depuis 2015.



Committee on Women in Engineering Inaugural meeting, Brasilia, December 2008.



Committee on Women in Engineering Inaugural meeting, Brasilia, December 2008.



Committee on Women in Engineering meeting, Kuwait, November 2009.



Committee on Women in Engineering Panel Discussion,
Kuwait, 2009.



Committee on Women in Engineering meeting, Geneva,
2011.



Committee on Women in Engineering Chair Marie-Helene Therre with Prof. Kong Joo Lee, President, International Network for Women Engineers and Scientists (INWES), WFEO, Geneva, 2011.



Committee on Women in Engineering meeting, Ljubljana,
Slovenia, 2012.



Committee on Women in Engineering meeting, Geneva, 2011.



Committee on Women in Engineering meeting, Singapore, 2013.



Committee on Women in Engineering workshop,
Lima, Peru, December 2016.



Speakers at Commission on Status of Women Side Event
(CSW61), New York, March 2017.



Committee on Women in Engineering after the Women in Engineering Panel discussion,
WEF2017, Rome, December 2017.



Committee on Women in Engineering after the Women in
Engineering Panel discussion, WEF2017, Rome, December
2017.



First Africa Women in Engineering Forum, Mombasa,
Kenya, September 2018.



WomEng 1 Million Girls in STEM Project, South Africa, 2018.



Ms. Valerie Agberagba, Chair Committee on Women in Engineering, speaks on diversity at the Global Engineering Congress, London, October 2018.



Ms. Ania Lopez, representing WFEO National member from Italy, speaks at the Global Engineering Congress, London, October 2018.



Women engineers at Global Engineering Congress, London, October 2018.

WFEO Committee on Disaster Risk Management

The Committee on Disaster Risk Management was established in 2009 and had its inaugural meeting in Buenos Aires in 2010. The Committee was hosted by the Science Council of Japan (SCJ) and Chaired by Dr. Yumio Ishii (2009-2013) and by Prof. Toshimitsu Komatsu (2013-2017). The Peruvian Engineers Association (CIP), commenced hosting the Committee in December 2017.

The goal of the Committee has been to share valuable lessons learned from past natural disasters in Japan and Peru to other disaster-related vulnerable countries. The Committee has focused on introducing, recommending and developing the best practices, lessons, and appropriate methods for natural disaster prevention, reduction, and resilience as well as adaptation to disaster risks as a result of global climate change and earthquakes.



Inaugural WFEO Committee on Disaster Risk Management meeting, Buenos Aires, October 2010.



WFEO Committee on Disaster Risk Management meeting, Geneva, September 2011



WFEO Committee on Disaster Risk Management meeting, Geneva, September 2011.



WFEO Committee on Disaster Risk Management meeting, Slovenia, September 2012.

Le Comité Gestion des risques de catastrophes

Le Comité Gestion des risques de catastrophes a été créé en 2009 et a tenu sa réunion inaugurale à Buenos Aires en 2010. Le Comité a été hébergé par le membre national pour le Japon, le Conseil scientifique du Japon (SCJ), et présidé par Yumio Ishii (2009-2013) et par Toshimitsu Komatsu (2013-2017). L'Institution des ingénieurs du Pérou (CIP) accueille le Comité depuis décembre 2017.

L'objectif du Comité a été de partager les enseignements tirés des catastrophes naturelles passées au Japon et au Pérou avec d'autres pays vulnérables aux catastrophes. Le Comité s'est concentré sur la sensibilisation, la recommandation et le développement des meilleures pratiques, sur les méthodes appropriées pour la prévention, la réduction et la résilience face aux catastrophes naturelles, ainsi que sur l'adaptation aux risques de catastrophe, dans le contexte du changement climatique mondial et des séismes.



WFEO Committee on Disaster Risk Management meeting, Slovenia, 2012.



WFEO Committee on Disaster Risk Management meeting, Singapore, September 2013.



WFEO Committee on Disaster Risk Management meeting, Lima, Peru, December 2016.



Piura River in Flood, the Committee is working to mitigate the impacts of such natural disasters.



LIMA DECLARATION



Increasing resilience of infrastructure vis-à-vis natural and man-made disasters

The World Federation of Engineering Organizations [WFEO], representing the engineering organizations of more than 90 countries and of 10 international engineering federations, met in Lima - Peru and agreed to issue this Declaration.

Considering that:

1. As a normal process of the earth evolution, strong natural events hit the Earth surface for billions of years.
2. The ongoing climate change increases the destructive power of atmospheric phenomena, both by changing the prevalent weather conditions and by weakening the protection of populations.
3. There are human activities, like unplanned growth of cities, invasion of dangerous zones, weak and exposed housing, hospitals, and schools structures as well as infrastructures, that increase vulnerability and create conditions favoring catastrophic events.
4. Since the start of the 20th century, more than eight million deaths and seven trillion US dollars economic damage are the result of natural disasters.
5. Although the occurrence of strong and potentially harmful natural phenomena can neither be stopped nor managed, the correct application of policies, strategies and actions can successfully reduce vulnerability and high risks.
6. It is an essential function of professional engineers to contribute to create safer, sustainable, and prosperous societies.

Declare:

1. Disaster risk reduction is a multi-disciplinary effort that goes beyond the engineering domain, requiring political intervention for assuring economic resources and establishing adequate priorities.
2. There is a strong commitment of engineering to actively participate in processes leading to avoid loss of life and property, and to reduce human suffering due to the damaging effects of natural and man made hazards.
3. To increase the resilience of infrastructure vis-à-vis natural and man-made disasters, local scientific and engineering capacities must be strengthened in areas like building techniques, structural design, geology, hydrology, meteorology, fluid mechanics, materials science, and economics.
4. Engineering ought to continue its progress towards implementation of mitigation and adaptation measures upon the effects of natural and man-made disasters, bearing in mind humanity's quality of life improvement.

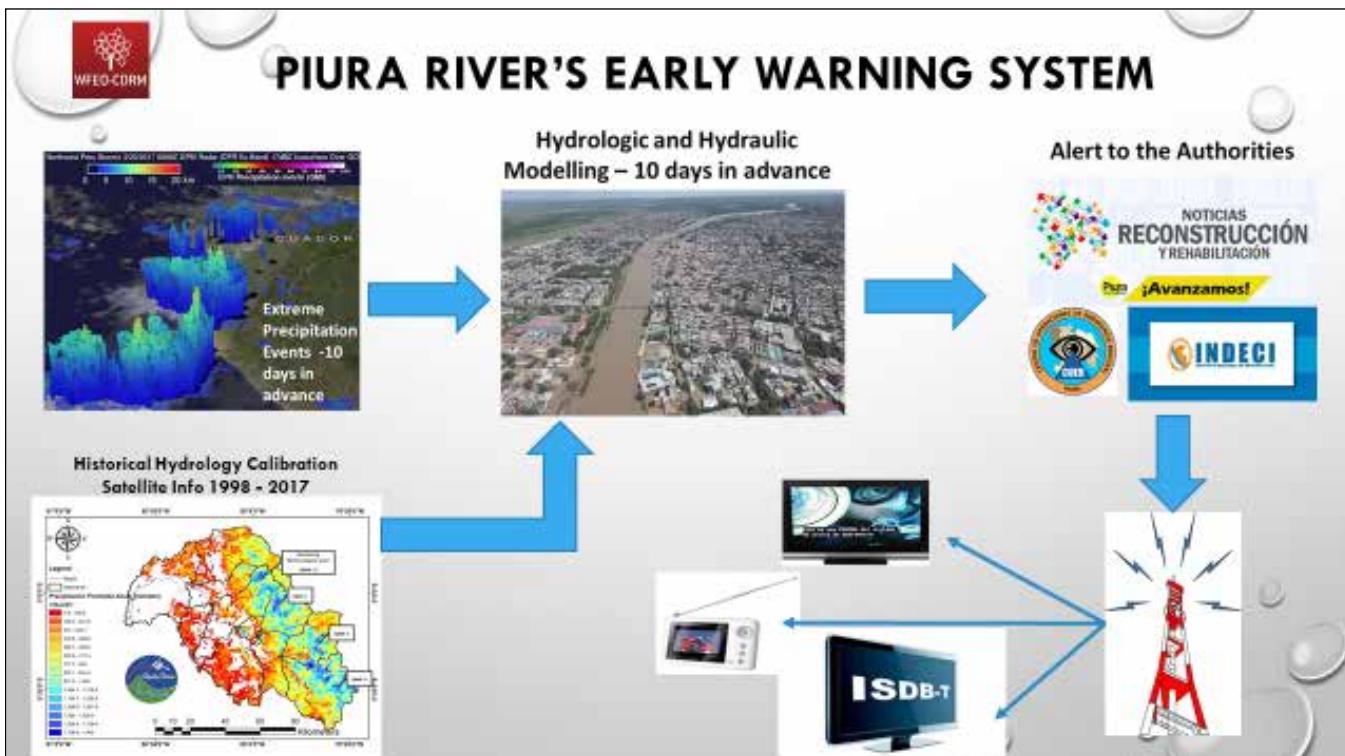
Signed in Lima, on December the 6th, 2016.

Jorge Spitalnik
President of the World Federation
of Engineering Organizations

Jorge Alva Hurtado
President of the Peruvian
Association of Professional Engineers



WFEO Committee on Disaster Risk Management meeting, Rome, December 2017, hand over from Japan to Peru as host national members.



Proposed Piura River Early Warning System, a key project of the Committee.

The Committee on Young Engineers / Future Leaders

The Committee on Young Engineers/Future Leaders was first established as a subcommittee of the WFEO Committee on Engineering Capacity Building. It was formally approved as a full Standing Technical Committee in Buenos Aires in 2010. The Committee is hosted by the Kuwait Society of Engineers since 2011.

Le Comité Jeunes ingénieurs / Futurs leaders

Le Comité Jeunes ingénieurs/Futurs leaders été créé comme un sous-comité du comité de Renforcement des capacités de la FMOI. Il a été officiellement approuvé en tant que Comité technique permanent à Buenos Aires en 2010. Le Comité est hébergé par la Société des Ingénieurs du Koweït (KSE) depuis 2011.



Committee on Young Engineers Future Leaders Workshop
Kyoto, December 2015.



Young engineers at Young Engineers session, Global Engineering Congress, London, October 2018.



Young Engineers Day, Singapore, September 2013.



Panellists at Young Engineers Session, Global Engineering Congress, London, October 2018.



Winners of young engineers competition speak at Global Engineering Congress, London, October 2018.



Launch of Young Engineers Competition Book by WFEO President Dr. Marlene Kanga, Global Engineering Congress, London, October 2018.



2018 Young Engineers Competition

Celebrating the Achievements of Young Engineers in Advancing the UN Sustainable Development Goals



First Young Engineers Competition – Engineering Leaders for Sustainable Development, October 2018.

Members of the Committee on Young Engineers/Future Leaders with the Emir of Kuwait at the opening ceremony of the conference hosted by the Kuwait Society of Engineers, November 2009.

WFEO United Nations Relations Committee

The WFEO United Nations Relations Committee was established by WFEO as a working group in 2011. It was formally recognised as a committee in October 2018. The Committee leads the engagement of the Federation at the United Nations. WFEO is the Co-Chair, with the International Science Council (ISC), of the Scientific and Technological Community Major Group among the ten Major Groups of Stakeholders at the United Nations. The Committee co-organises a side event at the Science Technology and Innovation Forum held at the United Nations in May each year and at the High Level Political Forum held at the United Nations in July each year. It engages with United Nations activities in New York and other centres around the world throughout the year.

Le Comité des relations ONU-FMOI

Le Comité des relations ONU-FMOI a été créé en tant que groupe de travail en 2011. Il a été formellement établi comme comité en octobre 2018. Le Comité anime l'engagement de la Fédération aux Nations unies. La FMOI co-préside, avec le Conseil international de la science (ISC), le Groupe majeur communauté scientifique et technologique; elle co-organise une manifestation parallèle au Forum science, technologie et innovation qui se tient à l'ONU en mai de chaque année, et au Forum politique de haut niveau pour le développement durable qui a lieu à l'ONU en juillet de chaque année. Il participe aux activités de l'ONU à New York et dans d'autres centres du monde entier tout au long de l'année.



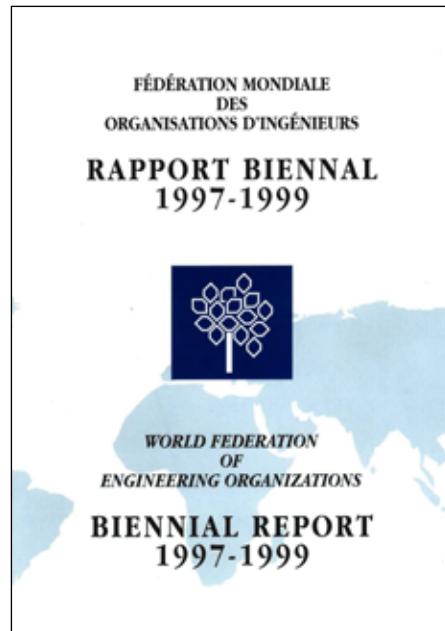
WFEO UN Relations Committee meeting. London, October 2018.

WFEO Biennial Report

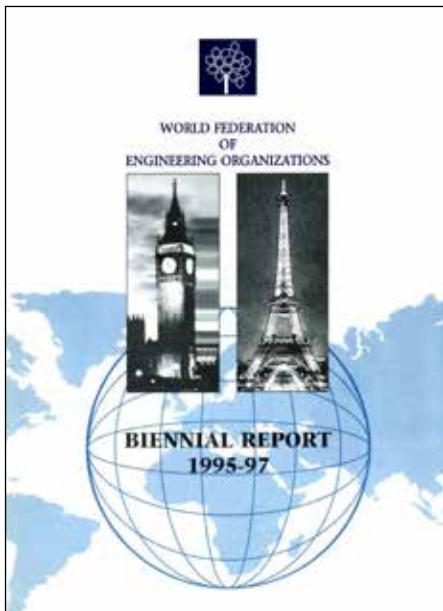
The WFEO biennial report showcases the work of WFEO and its committees and is distributed to all members at the biennial General Assembly.

Le Rapport biennal de la FMOI

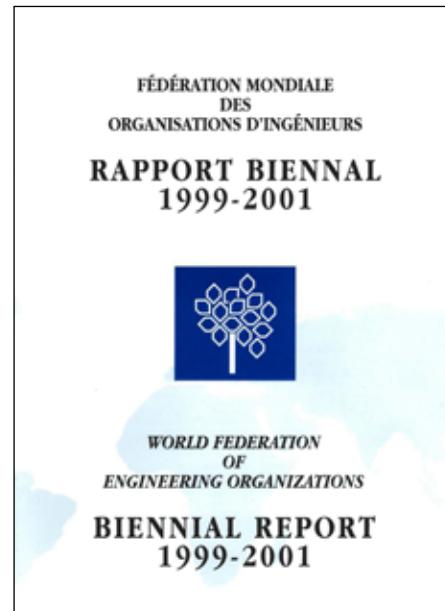
Le Rapport biennal de la FMOI met en valeur le travail de la Fédération et de ses comités, et est distribué à tous les membres à l'Assemblée générale biennale.



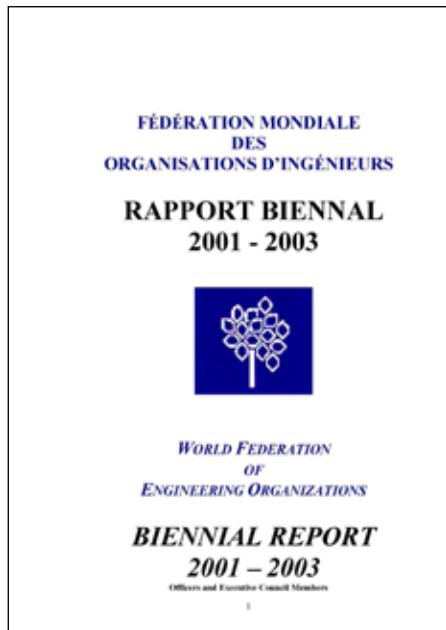
Biennial report 1997-1999



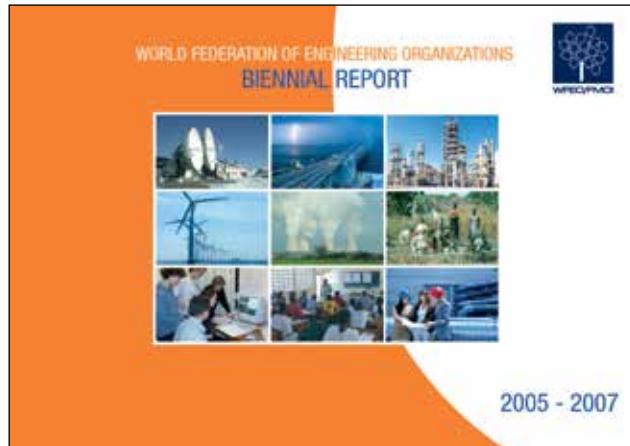
Biennial report 1995-1997



Biennial report 1999-2001



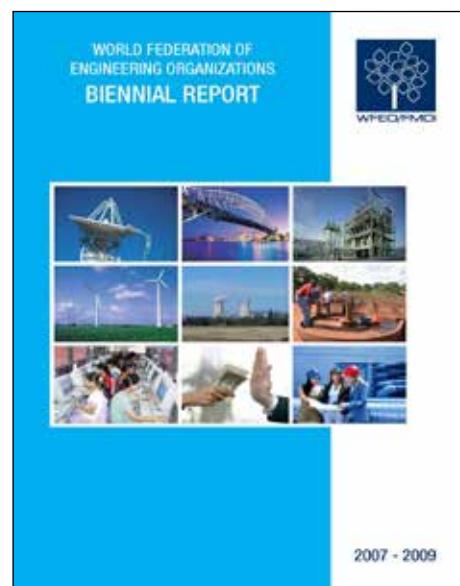
Biennial report 2001-2003



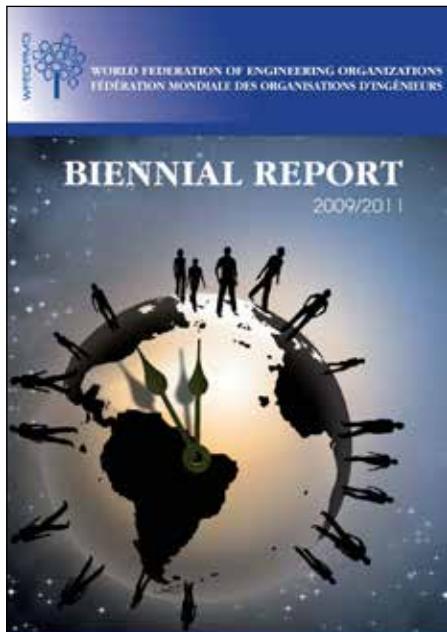
Biennial report 2005-2007



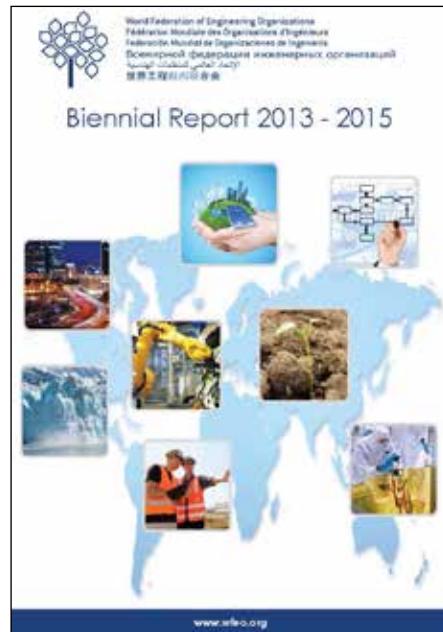
Biennial report 2003-2005



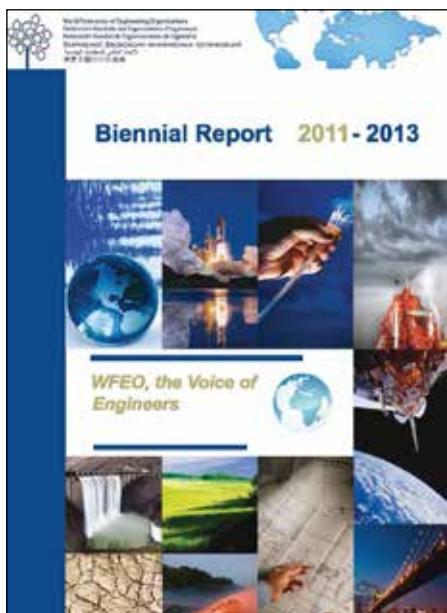
Biennial report 2007-2009



Biennial report 2009-2011



Biennial report 2013-2015



Biennial report 2011-2013



Biennial report 2015-2017

50 Years of Engineering Innovation / 50 ans d'innovation en ingénierie

WFEO 1st Constituent General Assembly;
1st President Eric Choisy, Switzerland;
Dr. Gainsborough Secretary General,
Secretariat at IET, Savoy Place, London



Fibre Optics discovered

1968

Apollo 11 lands on
the Moon. Joseph
Engleberger created the
first Industrial robots.



1969

WFEO recognised as
category B organization
by UNESCO, General
Assembly, Paris



ARPANET, first
email system

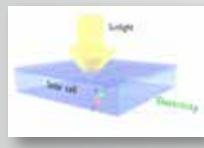
1970

Video cassette
tapes developed



1971

WFEO General
Assembly, Varna,
Bulgaria



Research on solar
energy applications

1972

First mobile phone
demonstrated



1973

WFEO General Assembly,
New York, USA



First Digital
Camera developed



1975

WFEO General Assembly
Tunis, Tunisia; Claude
Herselin, France, elected
Secretary General; WFEO
Secretariat moved to Paris



First Super Computer,
Genetech, first
genetic engineering
company founded

1976



Global Positioning
System technology

1978



Invention of the
Compact Disc

1980



First artificial
heart implanted

1982

First personal computer,
Medical Resonance
Imaging developed.
WiFi Invented

WFEO General
Assembly, Warsaw
Poland; 2nd WFEO
President, Sadok Ben
Jemaa, Tunisia



1977

Computed Tomography (CT) scans
developed for medical imaging

1979

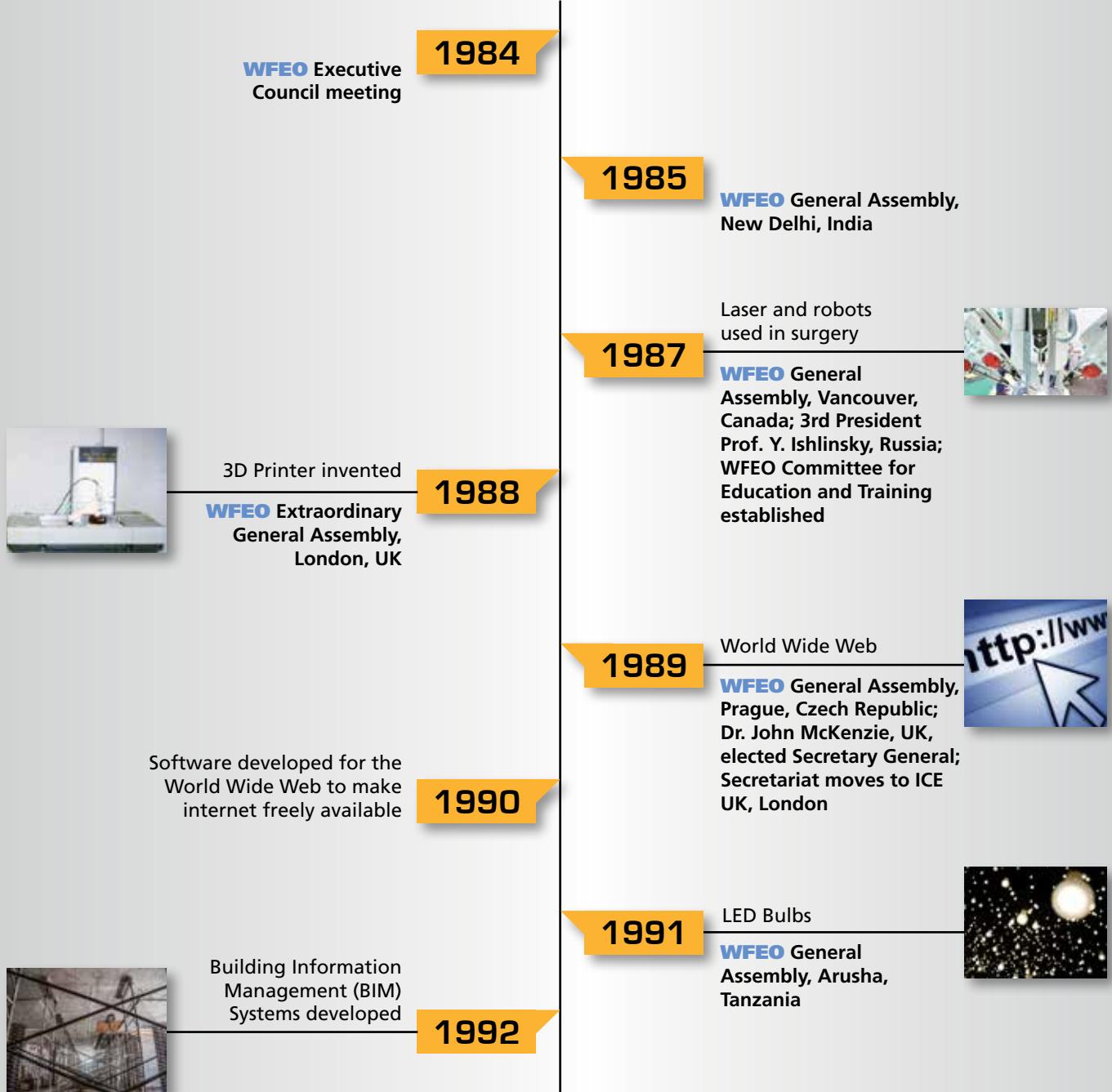
WFEO General Assembly,
Jakarta, Indonesia; Committee
for Engineering and Environment
established

1981

WFEO General Assembly,
Buenos Aires, Argentina

1983

WFEO General Assembly,
Nairobi, Kenya





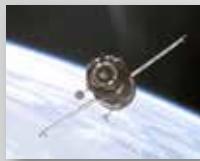
Channel Tunnel completed

WFEO Executive Council meeting, Amman, Jordan

1994

1993

WFEO General Assembly, Havana, Cuba; 4th WFEO President, Bud Carroll, USA



International space station established

1998

1995

WFEO General Assembly, Budapest Hungary; WFEO Committee for Information and Communications and WFEO Committee for Innovative Technologies established

Plasma Displays developed, first hybrid car, first MP3 Player

1997

WFEO General Assembly, Hong Kong; 5th WFEO President Conrado Bauer; WFEO Secretariat moved to UNESCO Paris; Pierre de Boigne appointed Executive Director.



USB Storage Device developed

WFEO Executive Council meeting, Bucharest, Romania; First World Engineers Convention, Hanover, Germany

2000

1999

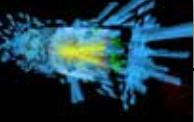
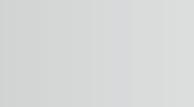
WFEO General Assembly, Madrid, Spain; Conrado Bauer is President.

Apple iPod, artificial heart used for first time in an operation

2001

WFEO General Assembly, Moscow, Russia; Jose Medem, Spain, is President; WFEO Model Code of Ethics



<p>Elon Musk founds SpaceX for space travel with the goal of enabling people to live on other planets</p>	<p>2002</p>	<p>WFEO General Assembly, Tunis, Tunisia; Jose Medem, Spain, WFEO President; Committee for Capacity Building established; Françoise Côme appointed WFEO Executive Director; Inaugural Hassib Sabbagh Award for Construction Excellence</p>
<p>Facebook</p> <p>Special WFEO General Assembly; Dato Lee Yee Cheong, Malaysia WFEO President, 2nd World Engineers Convention, Shanghai, China</p>	<p>2004</p>	<p>YouTube, Google Maps</p> <p>WFEO General Assembly, San Juan Puerto Rico; Dato Lee Yee Cheong, Malaysia, WFEO President; Tahani Youssef appointed Executive Director</p>
 <p>Large Hadron Collider</p> <p>WFEO Executive Council meeting and 3rd World Engineers Convention, Brasilia, Brazil</p>	<p>2008</p>	<p>Apple iPhone</p> <p>WFEO General Assembly, New Delhi, India; Kamel Ayadi, Tunisia, WFEO President; WFEO Committee for Women in Engineering and WFEO Committee for Anti-Corruption established</p>
 <p>Burj Khalifa completed</p> <p>WFEO Executive Council meeting, Buenos Aires, Argentina</p>	<p>2010</p>	<p>Genetic modification technologies</p> <p>WFEO General Assembly, Kuwait; Barry Grear, Australia, WFEO President; Committee for Disaster Risk Management established; UNESCO recognises WFEO as Associate Partner NGO</p>
 <p>Artificial Intelligence IBM Watson beats human at a game. Rover Lands on Mars</p> <p>WFEO General Assembly; First Woman WFEO President, Maria Jesus Prieto Laffargue; 4th World Engineers Convention, Geneva; Young Engineers/Future Leaders Committee established</p>	<p>2011</p>	

<p>Medical telehealth applications developed</p>	<p>2012</p>
<p>WFEO Executive Council meeting, Ljubljana, Slovenia; WFEO attends the Rio+20 Conference</p>	<p>2013</p>
<p>Active bionic prostheses developed</p>	<p>2014</p>
<p>WFEO Executive Council meeting, Paris; 1st African Engineering Week, Abuja, Nigeria</p>	<p>2015</p>
<p>WFEO Executive Council meeting, Lima, Peru; Jacques de Méreuil Executive Director</p>	<p>2016</p>
<p>Various advances in renewable energy technologies, artificial intelligence, Industry 4.0 and Internet of Things. First twins with edited genomes born in China</p>	<p>2017</p>
	<p>2018</p>
<p>Marlene Kanga, Australia, WFEO President; 50th Anniversary celebrations; signing of WFEO UNESCO Declaration on Commitment to UN SDGs; 4th March proposed as World Engineering Day; Inaugural WFEO GREE Women in Engineering Award and Inaugural Dr Zuheir Alami Award for Engineering Innovation; WFEO UN Relations Committee recognised formally.</p>	<p>WFEO General Assembly, Singapore; Adel Al Kharafi, Kuwait, WFEO President; Abuja Declaration between WFEO and FAEO with focus on Africa</p>
<p>3D Printing using metals</p>	
<p>WFEO General Assembly, Kyoto, Japan; Marwan Abdelhamid WFEO President; 5th World Engineers Convention Kyoto, Japan</p>	
<p>Tesla Solar Roof Shingles developed, world's first 3D printed bridge completed in Madrid, Spain</p>	
<p>WFEO General Assembly, Rome, Italy; Jorge Spitalnik, Brazil, WFEO President</p>	



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