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# Reginald I. Vachon

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Ph.D., PE, Eur. Ing.

- ◊ I ask for your vote for President-Elect and your ideas.
- ◊ You-our members-are our strength and key to success.
- ◊ Let us listen and learn together so we can lead WFEO into the future.
- ◊ We shall build on the first 50 years for our next 50.
- ◊ We shall work together to serve society, protect the environment, and establish a sustainable, equitable, and peaceful world.
- ◊ We shall support the developing world to achieve equality.
- ◊ We shall speak with one voice for the engineering profession and its practitioners.

## Candidate for President of WFEO

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Dr. Reginald I. Vachon is an engineer, executive, and lawyer whose career and accomplishments are testimony to his dedication to engineering and to service.

Thank you for the honor of your consideration of my candidacy to serve as president of the WFEO. The summary below will clarify my views and underscore my unswerving commitment to the profession of engineering, to its practitioners around the world, and to the WFEO and other organizations that serve them. My bio beginning on page five describes a background, course of training, and career dedicated to service to and through engineering that is preparation commensurate to join your efforts as WFEO President.

### **Introduction**

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My conviction is that engineers are not confined by geopolitical boundaries. We as engineers serve humanity and the environment globally even as we practice locally. While every engineer contributes to advancing the well-being of humanity and the environment, the power of engineers' contributions is vitally magnified when we speak with one voice.

### **Our Commitment**

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We all must be committed to the WFEO Vision and Mission. For my own part, my own work as chair of WURC has given me a chance to see the necessity and the utility of WFEO to represent the engineering profession as well as the indispensability of engineering to the achievement of the 17 SDGs. In WURC's efforts with the 9 NGO Major Groups and our ISCU and ISSC colleagues in the Scientific and Technological Major Group at the UN. We have had and have the great opportunity to bring the rationality of science and the physically possible engineering approach to UN proposals to translate the SDGs into reality.

The strength of WFEO grows out of the myriad of volunteer efforts of our members around the world. A vital challenge we must address is to ensure that WFEO's organizational structure optimally supports volunteers' work and service. Our staff is relatively small, so volunteer leaders necessarily shoulder many challenges: communication; the development of referred positions on issues; the representation of WFEO at international and national meetings; the representation of WFEO at the UN to address the 17 SDGs; and many others. Expenditures of time and treasure (for instance to support travel to meetings and intervening activities) must support both the Vision and Mission of WFEO and the spirit of altruism and dedication of the volunteers in these efforts.

### **WFEO Staff**

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WFEO volunteers and staff form an indispensable partnership. We work in unison, share communications, and are mutually guided by the Board and Council, Policies and By-laws in all actions. Without the WFEO's dedicated staff, WFEO could not be what it is or offer the world-wide service it does.

The WFEO President serves two official functions: he or she represents WFEO, its programs and participation to the global community, and he or she serves as chair of the Board and Council. The internal role of the president is really to listen, to learn, and to help develop consensus without sacrificing principle. The WFEO presidency must remain above politics, to honor and support the work the organization makes possible across the globe. The President does not dictate policy nor does he or she adopt partisan positions. It is the President's task to consider all minority perspectives in pursuit of achieving a majority approach. The President must be a member of the executive team, not its dictator, but still lead.

### **My Candidacy**

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ASME and AAES support my candidacy for the WFEO presidency. My resume describes a background, course of training, and career dedicated to service to and through engineering that I hope you will find appropriate preparation to join your efforts as WFEO President. My approach is and will always be to listen, learn, and lead as both a team member and team leader. We can and we must work together to realize the WFEO Vision and Mission. It would surely be the crowning honor of my engineering career to take on this vital assignment.

### **What We as Volunteers and Staff Will Do**

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We will build on the stature of WFEO established by those who came before us. We will work to develop external sources of revenue for WFEO, so that membership fees are reasonable and so we may undertake the initiatives we envision following our Strategic Plan. To make this vision a reality, I ask for your vote and ideas. I pledge my commitment to WFEO and you. We will speak with one voice for the engineering profession. We will break down barriers and promote the engineer and engineering to serve humanity and the environment locally and globally.

**VISION:** To be the acknowledged global leader of the engineering Profession (WFEO is the sole Body representing the engineering profession of all kind and disciplines at World Level).

**MISSION:** To be the unified voice of the engineering profession in providing strategic engineering guidance to global society (WFEO is an international platform where issues related to engineering are discussed and addressed).

### **WFEO Strategic Objectives**

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#### **External Objectives**

- A. Be recognized as the respected and reliable source of advice and guidance on engineering and technology related issues for human well-being and natural environment management,**
- B. Be at the forefront of international efforts in making the Engineering profession contribute that is scientifically and technologically achievable,**
- C. Apply engineering and technology for promoting sustainable development, climate change adaption, disaster risk mitigation, public health, and poverty alleviation,**
- D. Facilitate mobility of Engineering professionals globally,**
- E. Establish and maintain a global code of ethics for the professional practice of engineering,**
- F. Promote diversity and inclusion in the engineering profession,**

#### **Internal Objectives**

- G. Improve the financial condition, visibility, presence, and status of WFEO,**
- H. Expand the membership and the support of National and International members,**
- I. Continuously improve the work of STCs and the quality of their outputs.**

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**Professional Practice**

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Vachon has been a Research & Development Engineer with E.I. DuPont, an Aerospace Engineer with Thiokol, a Design Engineer for Hayes Aircraft and Aerospace Engineer with NASA, among his many engagements. He has consulted on nuclear power for space exploration and power generation on earth. He is an original patentee for digital image correlation. He co-holds multiple other patents, including optical strain gage measurement technology and for the sizing of coronary arteries at systole and diastole during invasive angiography. The optical strain gage technology operable to 1093.33°C was purchased by General Electric in 2015.

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**Service to the Profession**

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Vachon has offered distinguished service to the profession of engineering in a variety of roles at both the national and international level for more than four decades. These include: President (2003-2004) American Society of Mechanical Engineers; Secretary-Treasurer and a Member of the Board of the International Nuclear Energy Academy; President-elect of the Pan American Academy of Engineering; former Vice President for North America for the Pan American Union of Engineering Organizations (UPADI) and currently serves as co-Chair of UPADI's Anti-Corruption Work Group; former Chairman of the American Association of Engineering Societies (AAES) and serves as chair of the International Activities Committee; Treasurer of the World Federation of Engineering Organizations (WFEO); chairs WFEO UN Relations Committee; member of the Advisory Council of the WFEO Energy Committee and the WFEO World Engineering Forum Task Force; serves both as the WFEO participant at the International Atomic Energy Agency and as WFEO Representative to the U.N. and serves with the U.N. NGO Scientific and Technological Major Group and the U.N. High Level Political Forum (HLPF) Steering Committee on the 17 Sustainable Development Goals (SDGs).

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**Academic and Educational Achievements and Contributions**

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Vachon has authored or co-authored over 200 unclassified peer reviewed papers and reports: delivered numerous invited lectures; served as advisor and contributor to the ACET anti- corruption film ETHICANA; authored video course on Ethics and Professionalism for engineers; holder of an endowed chair Professor of Mechanical Engineering at Auburn University; Adjunct Professor at Purdue University; conducted bio-engineering research and developed applications for companies and government organizations. He holds the following degrees: B.S. in Mechanical Engineering; M.S. in Nuclear Science, Ph.D. in Aerospace and Mechanical Engineering, and LL.B.

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**National and International Service**

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Vachon's career has taken him to countries around the world including Belize, Brazil, Cameroon, Ecuador, Egypt, Honduras, Hong Kong, Indonesia, Iran, Mexico, Nicaragua, Russia, Saudi Arabia, Singapore, Sudan, and Venezuela. Conducted research and development projects for a number of government agencies; served on the U.S. Department of Homeland Security Science and Technology Advisory Committee; was Resident Engineer and Constructor for the U.S. Strategic Petroleum Reserve; directed multi-disciplinary groups of scientists, economists and engineers for a variety of NASA projects; consultant to the Southern Interstate Nuclear Board for the "Transportation of Nuclear Materials." Dr. Vachon's private sector work has been undertaken for or in collaboration with a broad range of world-class organizations including IBM, Northrop Grumman, GE, NCR, Lockheed Martin, the Polish Air Force Institute of Technology, RUAG, Halliburton, The Port Authority of New York & New Jersey, and others.

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**Other Notable Achievements**

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Vachon founded several engineering firms and one communications firm; served on numerous corporate boards; is a licensed attorney and a member of bar U.S. Supreme Court: co-represented ASME in landmark Hydrolevel case. Dr. Vachon is a registered professional engineer (P.E.) in six states as well as a licensed European Engineer (Eur. Ing.); he is also a licensed U.S. Coast Guard Captain.

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**Membership Honors and Awards**

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Vachon is the recipient of numerous honors and awards for his work with the following: Honorary Member, ASME; Fellow, IMechE (UK); Fellow, ASCE; Life Member, ASEE; Associate Fellow, AIAA; Fellow, NSPE; Member, IEEE; Member, ISA; Member, ANS; Fellow, Hong Kong Institution of Engineers; Member, Institution of Engineers Singapore; Member, Sigma Xi; Member, Phi Kappa Phi; Member, Pi Tau Sigma. Vachon is recognized by the Alabama Society of Professional Engineers as a "Wonder of Engineering in 1975," as the American Society for Engineering Education's "Outstanding Mechanical Engineering Professor in the United States," and as the Western Electric "Outstanding Professor in the Southeast." He is the recipient of the Pan American Academy of Engineering Engineer Statesman Award and a member of the Katerva Awards Panel whose mission is to find, evaluate and accelerate disruptive sustainable innovations from around the world, using these innovations to solve world problems.

**Reginald I. Vachon, Ph.D., PE, Eur. Ing.  
Candidate for President-Elect of WFEO**

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**Henry Newbolt quotes that are relevant to the engineer:**

**“To set the cause above renown, to love the game above the prize”-The Island Race (1898)**

**“The work of the world must still be done, and minds are many though truth be one”-The Echo**

**The engineer works everyday not seeking renown or a prize.**

**The engineer works with the reality that the work of the world must still be done with truth and integrity as the cornerstones of the profession to serve humanity and preserve the environment.**

**For questions or clarifications:  
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**The candidate is endorsed by and this brochure distributed by the American Association of Engineering Societies (ABET, AIAA, AIChE, AIME, ASEE, ASCE, ANS, ASME, EWB-USA, IEEE- USA, ISA, NACE, NCEES, NSBE, NSPE, SAME, and SWE).**

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