



# Why should science and engineering societies engage in the development of public policy?

- Because the science and engineering professions have contributed more to the advancement of civilization than any other.
- Because the future impacts of technology will depend as much on the actions of governments as on the creativity of engineers and the discoveries of scientists.
- Because wise technology-related policies are best developed through consultation between policy-makers and technologists.
- Because professional societies provide large, diverse pools of technical experts whose consensus views are unlikely to be dominated by narrow political and corporate interests.

# Why should we, as engineers and scientists, engage in the development of public policy?

- ▶ We, who are educators and researchers, understand the impact of public policy on our ability to educate the next generation of engineers and scientists and the conduct world-changing research.
- ▶ We, who are power engineers, understand the impact of laws and regulations on our ability to provide reliable electricity at affordable costs, while minimizing adverse effects on the environment.
- ▶ We, who invented the Internet and other advanced communications technologies, understand both the enormous opportunities offered and new concerns about privacy and security.
- ▶ We, who are the enablers of advances in biology and medicine, understand the need to balance potential breakthroughs against ethical norms.

# Looking to the future: Unresolved technology policy issues

- Balancing privacy and security: surveillance, pervasive sensing, biometrics, IoT
- Artificial intelligence: driverless cars, robots, drones, etc.
- Bioengineering: gene editing, prosthetics, criteria for human research
- Access to technology: health, safety, education, financial security
- Climate change: Limiting temperature rise; adaptation
- The practice of engineering: product specification, safety, sustainability

*"Laws and institutions must go hand in hand with the progress of the human mind."*



# Interest in Public Policy is IEEE-wide

Smart  
Cities

IoTS

U.S.  
Export  
Controls

Industrial  
Ecology

Public  
Access

IEEE  
Internet  
Initiative

GreenTech  
Workforce

Patent  
and  
Copyright  
Policy

EPEAT

IEEE Society  
Engagement

Cyber  
Security  
Committee

Quadrennial  
Energy  
Review

802.11  
Regulations

European  
Public  
Policy  
Initiative

ETAP

IEEE-USA

Sustainable  
Energy for All

# Actions of the IEEE Board of Directors, 4 October 2015

## **Public Policy-Related Activities**

**1.**

Added a clear description of IEEE's roles in the development of public policy, and the principles that should govern them, to the IEEE Bylaws

## **External Communications on Public Policy**

**2.**

Revised IEEE Policies, Section 15, to provide a clear description of the various communication documents used in public policy-related education and advocacy, establish processes for the approval and adoption of these documents, and describe their appropriate use.

## **Global Public Policy Committee**

**3.**

Created a small Committee of IEEE called the "Global Public Policy Committee" to provide advice on matters related to public policy and to assist in coordinating, overseeing, and managing public policy activities throughout IEEE

# 1. IEEE Public Policy-Related Activities

## (Bylaw I-311)

<b>Coordinated, Mission-Driven</b>	IEEE and its organizational units will engage in coordinated public policy-related activities that advance its mission.
<b>IEEE Board remains ultimate authority</b>	IEEE's public policy activities at all levels will be guided by such general principles and Public Policy Position Statements as have been approved by the IEEE Board of Directors.
<b>Non-partisan, diverse, balanced &amp; evidence-based</b>	In conducting public policy-related activities, IEEE will be non-partisan, will seek and respect diverse opinions, and will promote balanced, evidence-based viewpoints.
<b>Education</b>	IEEE will inform policy-makers, IEEE members, and the public of the benefits, risks, and social implications of technology and effective strategies for accelerating the development and widespread deployment of beneficial technologies.
<b>Advocacy (Global &amp; Local)</b>	IEEE will be an advocate for the Institute, its members and communities, and the public, developing and communicating Public Policy Positions on matters related to technology within its fields of expertise and the needs of stakeholders; these policies may be local, national, regional, or global in nature.

# 1. IEEE Public Policy Related Activities (Continued)

## (Bylaw I-311)

<b>Leverage IEEE's Convening Power</b>	IEEE will promote public discussion of technology-related public policies, through such means as organizing fora and publishing public policy-related research, analysis, and opinion.
<b>Engage Members</b>	IEEE will establish and maintain programs that encourage member awareness and participation in public policy-related activities; this may include direct participation in the development of technology-related public policies through service in government agencies and technical advisory committees.
<b>Leverage Partnerships</b>	As appropriate, IEEE will work with other organizations in the development and conduct of public policy-related programs.
<b>Transparency</b>	All official IEEE and IEEE Organizational Unit Position Statements and Policy Communications shall be freely available to members and to the public.



## 2. External Communications on Public Policy (IEEE Policies, Section 15)

<b>Technology Policy Whitepapers</b> Information & perhaps options; no recommendations	IEEE Whitepapers	<ul style="list-style-type: none"> <li>• Approved by BoD with advice and recommendation from GPPC</li> <li>• May be developed/proposed by other entities</li> </ul>
	OU Whitepapers	<ul style="list-style-type: none"> <li>• Developed &amp; Approved by OUs &amp; focused on their jurisdiction</li> <li>• Reviewed by GPPC</li> </ul>
<b>Policy Position Statements</b> Policy Recommendations	IEEE Position Statements	<ul style="list-style-type: none"> <li>• Approved by BoD with advice and recommendation from GPPC</li> <li>• May be developed/proposed by other entities</li> <li>• Defines IEEE-wide position</li> </ul>
	OU Position Statements	<ul style="list-style-type: none"> <li>• Developed and approved by OUs</li> <li>• Reviewed by GPPC</li> <li>• Appropriate for, &amp; limited to, the domain of the OU, &amp; so identified in Statement</li> <li>• Consistent with existing IEEE Position Statements, and may expand</li> </ul>
<b>Public Policy Communications</b> (e.g. letter, testimony, speech or public remarks, media release) Conveys or explains content of content of Position Statements and Whitepapers	IEEE Policy Communications	<ul style="list-style-type: none"> <li>• Based on IEEE Position Statements</li> <li>• Consistent w/ any relevant IEEE Whitepapers</li> </ul>
	OU Policy Communications	<ul style="list-style-type: none"> <li>• Based on OU Position Statements</li> <li>• Consistent with any relevant IEEE or OU Whitepapers</li> </ul>

# Who can propose a Position Statement or Whitepaper?

- ▶ Short answer: Any member may propose, but organizational support will be required
- ▶ IEEE Position Statements and Whitepapers can be brought to the Board by any Board member, by GPPC, or by any Major Organizational Unit
- ▶ Organizational Unit Position Statements and Whitepapers must be developed through a process specified in the OU's Operations Manual and approved by the OU Governing Body. MOU's may establish requirements for subsidiary OUs.
  - OUs are defined in IEEE Bylaw I-107: "An IEEE organizational unit is a subset of the entire IEEE membership that has been formed to carry out particular educational, geographic, professional, technical or other appropriate activities of interest and service to those who are members of that organization unit as permitted by law."

### 3. IEEE Global Public Policy Committee: Mission (Bylaw I-305.7)

**Global Public Policy Committee:** The Global Public Policy Committee shall **advise** IEEE through the IEEE Board of Directors on matters related to public policy. It shall **encourage, assist, coordinate, and oversee** public policy activities throughout the IEEE with the goal of enhancing and sustaining IEEE's reputation as a globally-relevant resource of high-quality, balanced and effective advice, information, and advocacy on public policy issues within IEEE's sphere of technical competence and professional interest. Its specific processes and functions shall be specified in a Board-approved Charter and Operations Manual.

# To do lists (2016):

- ▶ Global Public Policy Committee
  - Complete an Operations Manual
  - Establish electronic structure for managing review processes
  - Review existing Position Statements and Whitepapers
  - Review new documents and advise Board/OUs as required
- ▶ Organizational Units
  - Establish processes for review and approval of policy documents
  - Identify technology policy topics/issues where education/advocacy are needed

# Your questions and comments



Egypt



South Africa



France



Austria



Greece



Norway