Executive Director Report

Stephen Welby, IEEE Executive Director
Region 10 Virtual Meeting
7 March 2020
IEEE AT A GLANCE

GLOBAL REACH

419,007 MEMBERS
160+ COUNTRIES
46 TECHNICAL SOCIETIES & COUNCILS
124,442 STUDENT MEMBERS

Data as of 31 December 2019
IEEE AT A GLANCE

TECHNICAL BREADTH

1,900+ ANNUAL CONFERENCES

5M+ TECHNICAL DOCUMENTS

200 TOP-CITED PERIODICALS

1,300+ ACTIVE STANDARDS

Data as of 31 December 2019
IEEE AT A GLANCE

SOCIAL IMPACT

GLOBAL PUBLIC POLICY

GLOBAL HUMANITARIAN EFFORTS

CONTINUING EDUCATION & CERTIFICATION

ETHICS IN TECHNOLOGY
IEEE Strategic Plan

2020-2025

OUR MISSION
We foster technological innovation and excellence for the benefit of humanity.

OUR VISION
We will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology, and of technical professionals in improving global conditions.

IEEE WILL:
• Drive global innovation through broad collaboration and the sharing of knowledge
• Enhance public understanding of engineering and technology and pursue standards for their practical application
• Be a trusted source of educational services and resources to support life-long learning
• Provide opportunities for career and professional development
• Inspire a worldwide audience by building communities that advance technical interests, inform public policy, and expand knowledge for the benefit of humanity

IEEE will foster a collaborative environment that is open, inclusive, and free of bias and will continue to sustain the strength, reach, and vitality of our organization for future generations.

www.ieee.org/strategic-plan
Approved by the IEEE Board of Directors, November 2019
Mission and Vision

OUR MISSION
We foster technological innovation and excellence for the benefit of humanity.

OUR VISION
We will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology, and of technical professionals in improving global conditions.
Core Values

**Trust:**
being a trusted and unbiased source of technical information and forums for technical dialog and collaboration

**Growth & Nurturing:**
courage education as a fundamental activity of engineers, scientists, and technologists at all levels and at all times; ensuring a pipeline of students to preserve the profession.

**Global Community Building:**
cultivating active, vibrant, and honest exchange among cross-disciplinary and interdisciplinary global communities of technical professionals.

**Partnership:**
promoting a culture of respect for the employee and volunteer, valuing contributions at all levels of the organization, investing in training and development to enhance capabilities, empowering individuals to make a positive difference, and building a membership organization based on a strong volunteer-staff partnership to serve the profession.

**Service to Humanity:**
leveraging science, technology, and engineering to benefit human welfare; promoting public awareness and understanding of the engineering profession.

**Integrity in Action:**
fostering a professional climate in which engineers and scientists continue to be respected for their exemplary ethical behavior and volunteerism.
Goals

IEEE WILL:

- Drive global innovation through broad collaboration and the sharing of knowledge
- Enhance public understanding of engineering and technology and pursue standards for their practical application
- Be a trusted source of educational service and resources to support life-long learning
- Provide opportunities for career and professional development
- Inspire a worldwide audience by building communities that advance technical interest, inform public policy, and expand knowledge for the benefit of humanity
Delivering on this Plan

IEEE will foster a collaborative environment that is open, inclusive, and free of bias and will continue to sustain the strength, reach, and vitality of our organization for future generations.
IEEE Diversity Statement

Adopted by Board in November 2019

“IEEE’s mission to foster technological innovation and excellence to benefit humanity requires the talents and perspectives of people with different personal, cultural, and disciplinary backgrounds. IEEE is committed to advancing diversity in the technical profession, and to promoting an inclusive and equitable culture in its activities and programs that welcomes, engages and rewards those who contribute to the field without regard to race, religion, gender, disability, age, national origin, sexual orientation, gender identity, or gender expression.”
Revisions to IEEE Code of Ethics

*Board to vote on resolution at June 2020 meeting*

- 2019 Ad Hoc Committee on Diversity, Inclusion, & Professional Ethics also proposed potential revisions to the IEEE Code of Ethics

- At its November 2019 meeting, Board of Directors approved a resolution to circulate the revisions to obtain member and volunteer feedback via The Institute
  - Member comments are requested on these proposed revisions through 10 April 2020

**Proposed revisions**
Products and Services
THE IEEE APP:

Your global gateway to IEEE

- Create a personalized experience
- Get geo and interest-based recommendations
- Schedule, manage, or join meetups
- Read and download your IEEE magazines
- Stay up-to-date with the latest news
- Locate IEEE members by location, interests, and affiliations

Download Today! app.ieee.org
IEEE Learning Network

- 840+ courses
- 16 partners

Content Partners

iln.ieee.org
IEEE Entrepreneurship AWS Activate: US $4M+ Credited!

- Amazon Web Services (AWS) Activate Program:
  - AWS provides IEEE members with credits for access to cloud computing resources
  - IEEE Entrepreneurship Community Members with an IEEE Membership eligible for:
    - $10K in AWS Promotional Credit valid for 2 years
    - 1 year of AWS Business Support (up to $5K)
    - 80 credits for Self-Paced Labs ($80 value)

What does this mean for IEEE members?
- As of 31 December 2019, 405 members have enrolled!
  - US $4M+ in AWS Promotional Credit
  - US $2M+ in AWS Business Support Credit;
  - US $32K+ in credits for Self-Paced Labs

What does this mean for your OU?
- IEEE Entrepreneurship has created marketing materials for your Society/Region/Section/etc. to enable you to:
  - promote this as a benefit to your members
  - adapt media images for social media
  - add small promos to your newsletters and sites
  - other collateral as needed
Next Generation Financial System

- Creation of a new financial process and supporting tools to improve business insights and decisions
- Focus on improving the volunteer experience by delivering greater financial visibility for IEEE end users, through a streamlined, simplified, efficient system

**Project Timeline**

**Phase 0:** Getting ready  
Sept 2019 – Nov 2019  
Discovery work and fact finding

**Phase I:**  
Data review, assessment, clean-up, RFP and partner selection  
Dec 2019 – March 2020  
*We are here*

**Phase II:**  
Design and implementation  
April 2020 - 2021

**Phase III:**  
Roll out  
2021 - 2022

**Desired improvements to current state**

- Transform **processes, roles and technology** to enhance the visibility, effectiveness, and efficiency of reporting IEEE’s financial performance to management and volunteers across IEEE’s portfolio of activities
- Leverage **process standardization, automation of manual processes, cloud technology** for improved financial visibility
- Operate through a simplified, automated, efficient and visible platform that supports users across IEEE
Next Gen Contracts (2020 - 2021)

Selection of a contract management system that streamlines contract review process across IEEE

What will change for you?
- Simplify Contracting Process
- Create your contract and know who has it via dashboard
- Transparency in milestones and deliverables
- Electronic submission of request
- Simultaneous approval workflows
- Know who signs your contract
- Seamlessly collaborate/eSign with third-party

Key Benefits
- Integrate with NextGen Finance
- Better templates that are easier to identify
- Stop recreating the wheel with lookback to clauses accepted in the past
- Speedy approvals
- Institutional knowledge available for future reference
- Clearer communications
- Secure/single storage repository
Concentration Banking Solution for Geo Units & Conferences

Current state

▶ Platform/Technology
  - Dated applications, dated technology components
  - Custom built integrations need constant updates
  - Not highly available

▶ Strategic
  - Not compliant with IEEE cloud first strategy
  - Not compliant with mobile strategy
  - Missing critical fraud protection safeguards, such as Positive Pay
  - Treasury module no longer supported by Oracle
  - Not part of any potential future solution for Oracle EBS

Future state

A modern banking solution that enables:

▶ Local account level activity and tracking
  - Deposits and disbursements
  - Earned interest on unit’s daily ending balance
  - View statements online
  - Coordinate payments to vendors
  - Configure registration system to deposit funds directly

▶ Parent and sub-account structure posting
  - Tracking and reporting sub-account transitions
  - Interest calculation and posting for sub a/c
  - Posting transactions to general ledger

BENEFITS MAINTAINED WITH ADDED FEATURES: Self-service options for writing checks, ACH, or wire transfers, Mobile application, Instantaneous transactions (real time), Streamlined processes/applications – one stop shopping, Other currencies besides USD and CAD in the future
Cybersecurity

*Increase in scams targeting IEEE volunteers and attacks on our systems*

- Aggressive campaign of phishing targeting IEEE volunteers and members using fraudulent emails to request payments or money transfers
  - Using readily available information on the web
  - No IEEE data was compromised
- Awareness messages were sent to IEEE members and staff
- IT security is monitoring and investigating all fraudulent events and cyber attacks
  - On average per month, IEEE firewalls block 2B attempts coming from 3M IP addresses
  - On average per month, IEEE processes 28M emails of which 40% are spam and 1% contained malware
Enhancing the Security of IEEE Email Accounts

IEEE G-Suite & 2-Step verification for members

- Opt-in multi-factor authentication (MFA) now available for members using IEEE G-suite including email, Google docs, and Google drive

- Communication will be issued to all IEEE email account holders giving them the option to enable the capability with instructions
IEEE Member Dues
IEEE Membership Dues

What are the objectives of this presentation?

- Help you understand what dues are and how they are calculated for higher grade and student members
- Give you an overview of our current dues structure, and how the current revenue is allocated
- Discuss how dues are used to support IEEE programs and services
- Identify long term membership trends
IEEE Membership By Region

31 December, 2019

R1 to 6 – 172,183
R7 – 16,866
R8 – 75,814
R9 – 18,972
R10 – 135,172

TOTAL MEMBERSHIP – 419,007
Your IEEE Membership Dues & Assessments – 2019

### Base Member Dues

- **Higher Grade**
  - Full = $151
  - E-membership (regular) = $79
  - E-membership (low income) = $29
  - Special Circumstances = $75.50

- **Students (No Assessments)**
  - Regions 1-7 = $32
  - Regions 8-10 = $27

### Region Assessments (One of the following)

<table>
<thead>
<tr>
<th>Region</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region 1</td>
<td>$5</td>
</tr>
<tr>
<td>Region 2</td>
<td>$2</td>
</tr>
<tr>
<td>Region 3</td>
<td>$2</td>
</tr>
<tr>
<td>Region 4</td>
<td>$3</td>
</tr>
<tr>
<td>Region 5</td>
<td>$5</td>
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<tr>
<td>Region 6</td>
<td>$3</td>
</tr>
<tr>
<td>Region 7</td>
<td>$19</td>
</tr>
<tr>
<td>Region 8</td>
<td>$13</td>
</tr>
<tr>
<td>Region 9</td>
<td>$4</td>
</tr>
<tr>
<td>Region 10</td>
<td>$5</td>
</tr>
<tr>
<td>Japan: R10</td>
<td>+ $25</td>
</tr>
</tbody>
</table>

### Other Assessments (as applicable)

- $46 IEEE-USA Assessment (Regions 1-6, exc Jamaica) only
- $3 ABET university accreditation activities (Regions 1-6, exc Jamaica) only
- $5 European Public Policy (EU/EFTA countries only)

Your higher grade dues payment is the sum of 3 components: Base dues, local activities in your Region/Section and local professional programs.

Note: Dues are waived for IEEE Life Members
# Total IEEE Membership Dues & Assessments Revenue—2019

- **Total Membership**
  - Base Dues: $32.5M
  - Revenue from Higher Grade Members: $29.7M
  - Revenue from Student Members: $2.8M

- **Region Assessments:** $1.5M
  - Region 1: $78.8K
  - Region 2: $28.9K
  - Region 3: $28.9K
  - Region 4: $32.5K
  - Region 5: $69.9K
  - Region 6: $85.5K
  - Region 7: $150.7K
  - Region 8: $496.1K
  - Region 9: $24.7K
  - Region 10: $255.2K
  - Japan: $240.1K

- **Other Assessments:** $5.2M
  - $4.7M IEEE-USA
  - $0.3M ABET
  - $0.2M European Public Policy

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Dues support IEEE member programs & services

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Note: Revenue from Society Memberships ($7M) and Affiliate fees ($0.6M) not included in analysis
Total IEEE Membership, 1963-2019


- Region 8 Established
- USA & Region Assessments Start
- ABET Assessment Starts
- Regions 9 & 10 Established
- HG Dues Increase $15
- Autorenewal Launched
- Direct Marketing Launched
- Life Member Correction; HG dues increase $9; STU dues increase $11
- Microsoft SW/Student Offer
- E-Membership Established
- Hong Kong Section growth

Data as of 31 December 2019
IEEE Higher Grade Membership, 1963-2019

- Region 8 Established
- USA & Region Assessments Start
- ABET Assessment Starts
- Regions 9 & 10 Established
- HG Dues Increase $15
- Direct Marketing Launched
- Technical Communities Launch
- Life Member Correction; HG dues increase $9
- E-Membership Established
- Hong Kong Section growth; Low Income E-Membership
- Autorenewal Launched
- EPPC Assessment Starts

Data as of 31 December 2019

IEEE Student Membership, 1963-2019

Data as of 31 December 2019

IEEE Membership Dues & Assessments

(Higher grade: full dues & e-membership)

Region 10 Electronic: $84
Region 9 Electronic: $83
Region 8 (EU/EFTA Countries) Electronic: $97
Reg 8 Electronic: $92
Reg 3 (Jamaica) Electronic: $81
Region 10 (Japan Sections): $181
Region 10: $156
Region 9: $155
Region 8 (EU/EFTA Countries): $169
Region 8: $164
Region 7: $170
Region 6: $203
Region 5: $205
Region 4: $203
Region 3 (Jamaica): $153
Region 3: $202
Region 2: $202
Region 1: $205

2019 Membership Year
Layers of IEEE Membership Dues 2019

Each HG Member sees a bundled price for HG base dues & assessments:
Total Dues Paid $
Includes:
- Base Dues = $
- Region Assessments = $
- Other Assessments = $

Each Student Member sees a price that is only base dues

Each Life Member has dues & assessments waived and receives basic membership services and publication(s) at no charge. Products and services for Life Members are subsidized by dues-paying members.

*Funds collected are passed to each Region, OUs, or activity and are expended in accordance with their charters.

Allocations from Base Dues & Region Assessments serve both HG and student members (full or as reduced)

- IEEE Educational Activities
- IEEE Spectrum Magazine
- Membership recruitment, retention
- Membership programs, products, services
- Member Services
- Local IEEE Region Activities
- Local IEEE Section Activities
- Support for IEEE Corporate Activities

Other Assessments are allocated as paid (full or as reduced)

- European Public Policy program for EU/EFTA members
- IEEE-USA programs & services for US members
- Support for IEEE/ABET university accreditation activities
How are Member Dues for Members in Region 10 Collected and Applied?

**Base Member Dues**

- Higher Grade
  - Full = $151

- Students (No Assessments)
  - Region 10: $27

**Region 10 Member**

*Full dues sees:*

- Total Dues Paid = $156
- Base Member Dues = $151
- Region Assessment = $5

**Region 10 Student Member sees:**

- Total Dues Paid = $27
- Base Member Dues = $27

**Allocations from Base Dues & Region Assessments (full or as reduced):**

- IEEE Educational Activities
- IEEE Spectrum Magazine
- Membership recruitment, retention
- Membership programs, products, services
- Member Services
- Local IEEE Region Activities
- Local IEEE Section Activities
- Support for IEEE Corporate Activities

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31 Funds collected are passed to each of these Regions, OUs, or activities and are expended in accordance with their charters.
How are Member Dues for Japan Based Members in Region 10 Collected and Applied?

**Base Member Dues**

- **Higher Grade**
  - Full = $151

- **Students (No Assessments)**
  - Region 10: $27

**Japan-based Member Full dues sees:**

- **Total Dues Paid** $181
  - Base Member Dues = $151
  - Region Assessments = $5
  - Japan Sections = $25

**Region & Other* Assessments**

- Region 10: $5
- Japan: $25

**Japan Student Member sees:**

- **Total Dues Paid** $27
  - Base Member Dues = $27

**Allocations from Base Dues & Region Assessments (full or as reduced)**

- IEEE Educational Activities
- IEEE Spectrum Magazine
- Membership recruitment, retention
- Membership programs, products, services
- Member Services
- Local IEEE Region Activities
- Local IEEE Section Activities (including Japan)
- Support for IEEE Corporate Activities

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*Funds collected are passed to each of these Regions, OUs, or activities and are expended in accordance with their charters.*
### Member Base Dues & Assessments are Allocated Across IEEE

<table>
<thead>
<tr>
<th>Areas Receiving Allocations</th>
<th>What is Supported Through Allocations</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEEE Educational Activities</td>
<td>Via IEEE eLearning members have access to the latest on core and emerging technologies; engaging resources for pre-university students, educators, parents, and volunteers, including TryEngineering.org, TryComputing.org, Engineering Projects in Community Service (EPICS) in IEEE; IEEE-HKN recognition and programs</td>
</tr>
<tr>
<td>IEEE Spectrum Magazine</td>
<td>Monthly, award-winning IEEE Spectrum reveals unique inside looks at technology and beyond. IEEE Spectrum Online extends the knowledge to blogs, webinars and multimedia content. The Institute is a member newsletter that features stories about IEEE activities, member profiles, conference information, important member dates and deadlines, IEEE election news, and career guidance.</td>
</tr>
<tr>
<td>Membership recruitment and retention</td>
<td>Membership recruitment and retention strategies and implementation. e.g., promotions, outreach, new member programs, corporate partnerships; essential member research; membership year join and renew processes</td>
</tr>
<tr>
<td>Membership programs, products, services</td>
<td>Relevant benefits and offerings for members, including career resources, professional development opportunities; products and services for students (IEEE Potentials, IEEEEXTreme); Women in Engineering (Int’l Leadership Conference, local Summits), Senior Member elevation and recognition, IEEE.tv; awards programs, Sections Congress, volunteer committee support including information management tools and geographic unit training resources (Center for Leadership Excellence); ongoing support for geographic units (vTools).</td>
</tr>
<tr>
<td>Member Services</td>
<td>Essential support team assists members in joining IEEE, renewing annually and in fully engaging throughout IEEE.</td>
</tr>
<tr>
<td>Local IEEE Region Activities</td>
<td>IEEE Regions conduct conferences globally that provide venues for members to convene for technical and professional programs and networking. Conduct annual operating meeting for volunteer leaders</td>
</tr>
<tr>
<td>Local IEEE Section Activities</td>
<td>IEEE local geographic units--Sections, Chapters, Affinity Groups, and Student Branches--provide unique opportunities for members to participate locally in relevant educational, technical and professional programs; create strong peer-to-peer connections through in-person networking; and participate in leadership opportunities that can make a positive distinction in IEEE members’ jobs and careers.</td>
</tr>
<tr>
<td>Support for IEEE Corporate Activities</td>
<td>IEEE Fellows Program, humanitarian programs, corporate awards programs, board and committee governance</td>
</tr>
</tbody>
</table>
# 2019 Dues and Assessment Allocations

## Allocations from Assessments
- **Only GH members pay**
  - Other assessments: $5.2M
  - Geo assessments: $1.5M
  - Bylaw: 12% of dues for Geo Units: $4.0M

## Allocations from Base Dues
- **All members pay**
  - 2019 Budget for Member & Geo Activities: $14.5M
  - 2019 Budget for Education Activities: $5.4M
  - Financial Ops Manual: 7.5% of dues towards corporate activities: $2.4M

## Additional details
- **IEEE-USA**: $4.7M
- **ABET**: $0.3M
- **EPPC**: $0.2M
- **10 Regions**: $1.3M
- **Japan**: $0.2M
- **Sections, Chapters, Student Branches**: $3.0M
- **Region Allocation**: $1.0M
- **$3.2M to Sections**
- **$2.3M to Regions**
- **$5.5M to Geo Units**
- **MGA Prog, Prod, Svc**: $6.8M
- **Member Services**: $4.8M
- **Membership (recruit, retain)**: $3.7M
- **$6.4M Subsidy to Spectrum from dues + $5.7M for Spectrum from Pubs**
- **$12.1M Total Spectrum Cost**
Member Dues Rate Adjusted for Inflation

*Purchasing Power of the Current Dues Rate Continues to Decline*

Net across the membership, dues buying power has been declining over time, which has led to a slow, ongoing reduction in services to members effectively. This is most evident in IEEE-USA, which has significantly reduced its program as a result of falling revenue.
Net across the membership, dues revenue buying power has been declining over time, which has led to a slow, ongoing reduction in services to members effectively.

This is most evident in IEEE-USA, which has significantly reduced its program as a result of falling revenue.
## What If...

### Impact of a $100/$10 (HG/Student) Cap on IEEE Member Dues & Assessments

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
<th>Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019 Membership Revenue</td>
<td>$39.2M</td>
<td></td>
</tr>
<tr>
<td><em>(Global Dues &amp; Assessments)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019 Membership Revenue</td>
<td>$23.0M</td>
<td>$16.2M (Deficit)</td>
</tr>
<tr>
<td><em>(IF Global Dues &amp; Assessments Capped at $100 HG/$10 Student Member)</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Options to Cover a $16.2M Deficit Annually

1. Reduce member programs and services to cover the shortfall
2. Impact other IEEE programs, beyond those currently receiving allocations from dues & assessments, to cover the shortfall
Thank you