IEEE-SA Welcome Address

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Member, IEEE-SA Corporate Advisory Group

Joint ITU-T/IEEE workshop on Next Generation Optical Access Systems

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IEEE

IEEE—A Global Organization

- **The IEEE is a non-profit organization for scientific and educational advancement with global membership**

- **Operates with a powerful staff-member partnership**
  - **Member directed, global input**

- **Technical professionals working in a global marketplace where national boundaries are often a secondary issue**
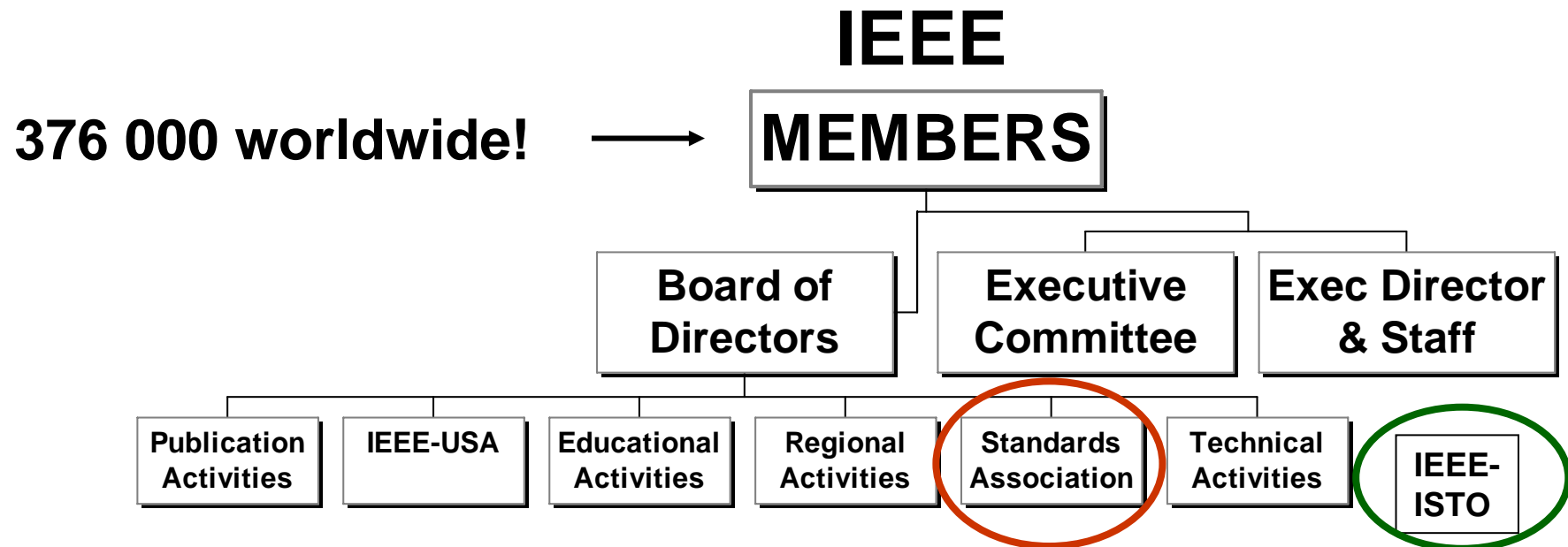
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IEEE Mission and Vision

- **Mission Statement**
  - **IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity**

- **Vision Statement**
  - **IEEE 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**

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IEEE: A Change Agent

- 1890 Established the Henry—a practical unit of inductance
- 1898 First dedicated effort toward standardization of electrotechnology in US
- 1912 Institute of Radio Engineers formed its first standards committee
- 1958 Joint Standards Committee of AIEE and IRE
- 1963 Merger of AIEE and the IRE
- 1973 Establishment of the IEEE Standards Board
- 1998 IEEE Standards Association (IEEE-SA)
- 1999 IEEE Industry Standards and Technology Organization (IEEE-ISTO)
- 2004 IEEE Standards Corporate Program

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IEEE and the IEEE Standards Association

IEEE

376 000 worldwide! ⟶ | **MEMBERS** |

| Board of Directors | Executive Committee | Exec Director & Staff |

| Publication Activities | IEEE-USA | Educational Activities | Regional Activities | Standards Association | Technical Activities | IEEE-ISTO |

*An **international** membership organization serving today's **industries** and the **public** with a **complete portfolio** of standards programs*

An international forum/consortium standards development organization

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IEEE Standards Association Mission

The IEEE Standards Association provides a standards program that serves the global needs of industry, government, and the public. It also works to assure the effectiveness and high visibility of this standards program both within the IEEE and throughout the global community.
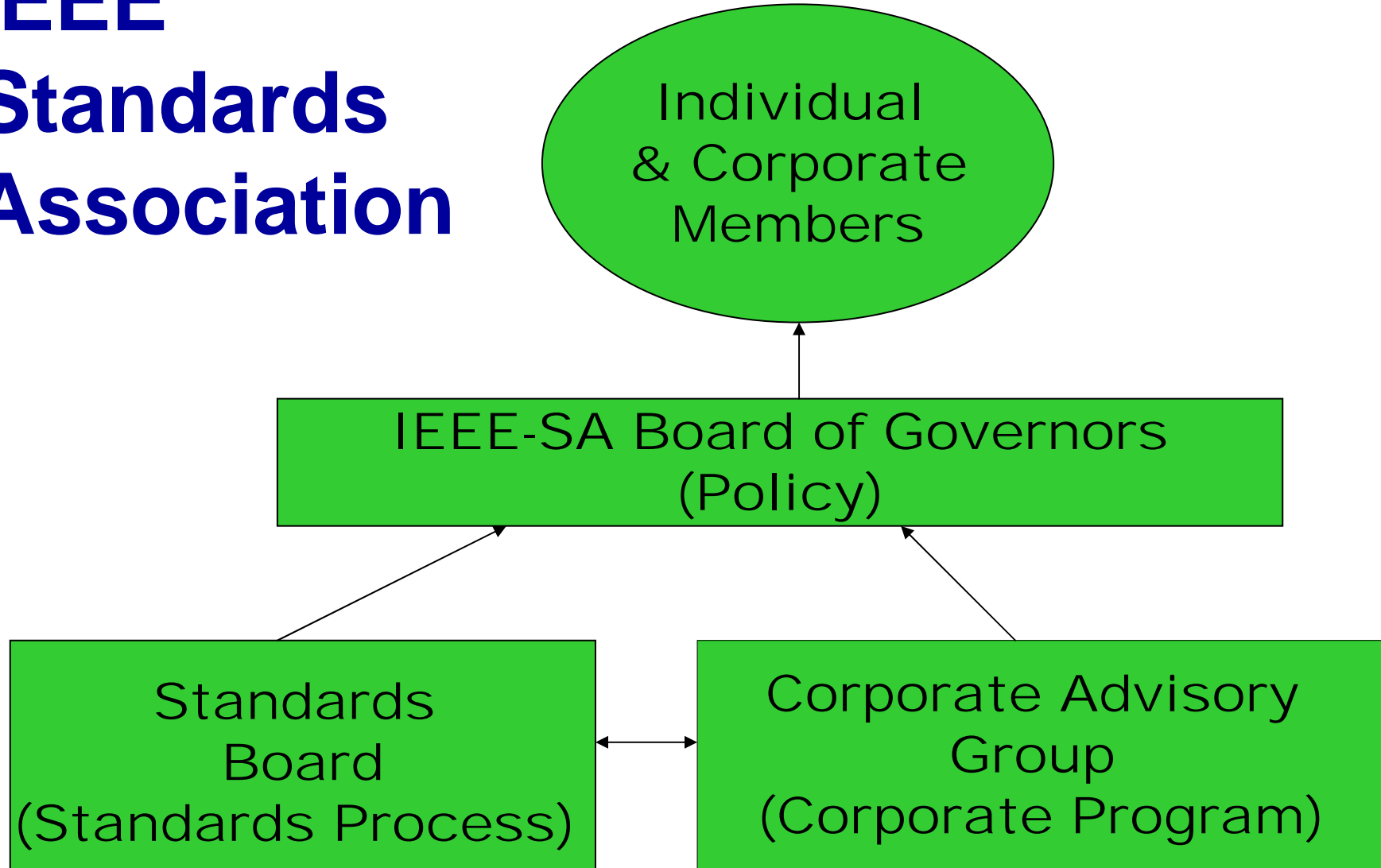
- Increasing visibility and usage of IEEE Standards worldwide
- Promoting reliance on IEEE standards as a source of technical information for international, regional and national standards bodies
- Encouraging worldwide participation in IEEE Standards

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IEEE Standards Are Pervasive

- **Aerospace Electronics**
- **Bioinformatics**
- **Broadband Over Power Line**
- **Broadcast Technology**
- **Electromagnetic Compatibility & Safety**
- **Information Technology**
- **Medical Device Communications**
- **Nanotechnology**
- **National Electrical Safety Code**
- **Organic Components**
- **Portable Battery Technology**
- **Power Electronics**
- **Power & Energy**
- **Radiation/Nuclear**
- **Reliability**
- **Transportation Technology**

> *900 active standards*

> *400 projects in progress*

> *15 000 volunteers*

> *7 000 individual members*

> *80+ corporate members*

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IEEE Standards Association

Individual & Corporate Members

IEEE-SA Board of Governors (Policy)

Standards Board (Standards Process)

Corporate Advisory Group (Corporate Program)

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IEEE-SA's Global Approach

- **Economics and technology span borders**
- **Advance technology to benefit global society**
  - **Cost-effective development**
  - **High-quality results**
- **One standard, one test worldwide**
- **Partnering with the international community**
  - **Create a standards development environment that brings together all constituents**
  - **Deliver economically relevant global standards to the international community**

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IEEE-SA Global Strategy

- **Maintain a strong global standards perspective in IEEE**

- **Leverage IEEE expertise, competence, track record, and processes to achieve global standards goals**

- **Provide a forum to develop market-relevant standards**

- **Recognize and promote**

  - **Emerging technologies**
  - **Standards life cycle requirements**
  - **Regulatory harmonization**
  - **Society betterment**

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IEEE International Collaboration

- **IEC**
  - **30% of existing IEC library built on IEEE standards**
  - **Current Dual Logo agreement facilitates rapid adoption: Power, Energy, Design Automation; Joint Development Agreement in progress**
- **ISO**
  - **PSDO Agreement in place for rapid adoption and joint development**
- **ISO/IEC JTC1**
  - **25+ years of adoption of IEEE network, operating systems, microprocessor, and software engineering standards**
- **ITU**
  - **International sector membership in all three ITU sectors – Telecommunications, Radiocommunications, Development**

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IEC/IEEE Dual Logo Agreement

- **Approved IEEE Standards are eligible for submission**
  - **IEC adoption takes about six months**
- **Documents submitted to the IEC Standardization Management Board (SMB) for consideration**
- **The appropriate IEC TC review document (FDIS ballot)**
  - **No revisions can be made**
- **Both organizations agree on the designation (standards number)**
- **IEC national members have the same rights regarding adoptions as with other IEC standards**
- **Example technical areas**
  - **Design Automation**
  - **Microprocessors**
  - **Switchgear**

ISO-IEEE PSDO Agreement

- **Addresses adoptions and joint development work**
- **Covers work in the following areas:**
  - ISO TC 204—Intelligent transportation
  - ISO TC 215—Point-of-care medical device standards
  - ISO/IEC JTC 1
    - SC 6—LAN/MAN
    - SC 7—Software Engineering
    - SC 22—POSIX
    - SC25—Microprocessors
    - SC36—Learning Technology

ITU & IEEE Relationship

The IEEE is a Sector Member of the ITU-R, the ITU-T, and the ITU-D

- **Example technical areas**
  - **Radio regulatory activities**
  - **Mobile broadband wireless access**
- **Joint workshops**
  - **June 2007—ITU-T/IEEE Workshop on Carrier-Class Ethernet**
  - **June 2008—ITU-T/IEEE Workshop on Next Generation Optical Access Systems**

IEEE-SA & National Standards Bodies Agreements

- **Canadian Standards Association (CSA)**
- **Standards Institute of Israel (SII)**
- **South Africa Standards Bureau (SABS)**
- **Association of Radio Industries and Businesses (ARIB)**
- **Discussions underway with other bodies**
  - **CESI - China**

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IEEE Standards: Summary

- **IEEE has developed standards for 115+ years**
  - **IEEE catalog of standards contains long-established engineering practices and leading-edge technologies that drive the marketplace**

- **IEEE has three venues for complementary joint development and collaboration**
  - **Individual-consensus standards**
  - **Entity-consensus standards**
  - **Consortia specifications and support**

- **IEEE has a leading contemporary intellectual property policy**

- **IEEE standards reflect the standardization principles as stated by the WTO**

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