IEEE-USA & Region 10

Tim Lee, IEEE-USA President

Region 10 AGM Seoul, Korea
22 February 2025

Timothy Lee
IEEE-USA President

Timothy Lee, a Boeing Technical Fellow based in Southern CA, leads the development of disruptive microelectronics technologies for advanced communications networks and sensor systems for airborne and space applications. His current research interests include heterogenous integration (Advanced Packaging), silicon Application Specific Integrated Circuits (ASICs) and gallium nitride Monolithic Microwave Integrated Circuits (MMICs). He led the development of hardware for satellite communications and has built phased-array antenna electronics for commercial and US government customers. He is an active volunteer in the IEEE. He is the 2025 IEEE-USA President; seeking collaboration on technology policy for R&D, STEM education and Workforce Development. Previous roles includes IEEE Board of Directors (2021-2022 Region 6) and past President of the IEEE Microwave Theory and Technology Society (MTT-S). He leads several Technical Working Groups in the IEEE Heterogenous Integration Roadmap (HIR) and is the Vice-Chair in the IEEE Future Networks Technical Community.

IEEE-USA – Supporting the career and public policy interests of IEEE US Members

Mission

IEEE-USA's mission is to recommend policies and implement programs specifically intended to serve and benefit the members, the profession and the public in the United States in appropriate professional areas of economic, ethical, legislative, social and technology policy concern.

Vision

Our vision is to serve the U.S. IEEE member by being the technical professional's best resource for achieving lifelong career vitality and by providing an effective voice on policies that promote U.S. prosperity.

#OneIEEE

https://ieeeusa.org/

Building Careers & Shaping Public Policy

- Leadership
  - President **Tim Lee** and Managing Director **Russell Harrison**

- Government Relations
  - Represents IEEE and IEEE members in the US to the US government
  - VP for Government Relations, **Nils Smith** and Dir. Of Government Relations **Eric Heilman**

- Career & Member Services
  - Manage professional development and revenue programs
  - VP for Career & Member Services **Amber Orr** and Director of Business Development, Career & Member Services **Melissa Carl**

- Communications
  - Public relations, public visibility, marketing, and member communications
  - VP for Communications **Ramesh Nair** and Director of Communications **John Yaglenski**

2025 Policy Priorities

- Promotion of Science & Technology

- Federal R&D Funding & Programming

- CHIPS Act Funding & Programs

- AI Regulations

- Immigration

- Energy

- Space

IEEE–USA Congressional Visit Day

CVD
IEEE-USA Congressional Visits Day
8-9 April 2025

IEEE-USA Congressional Visits Day
11 April 2024

When/Where: 8-9 April 2025 | Washington, D.C.
IEEE-USA Congressional Visits Day (CVD) is an annual event that brings engineers, scientists, mathematicians, researchers, educators, and technology executives to Washington to raise visibility of and support for engineering and technology. This premier event is open to all IEEE members in the United States.

CVD's Objectives
CVD is an opportunity to introduce yourself, your colleagues, your company, and your profession to our elected officials. It also a great opportunity to discuss legislation and issues that are uniquely important to IEEE members.

IEEE-USA Career and Members Services

TRENDING ON IEEE-USA InSight

**Hard Skills Impress;
Soft Skills Persuade**

**Unleashing Your Potential
Through Microlearning**

**Embrace Change and Thrive
in the Next Quarter-Century**

**Reset, Reflect, Repeat:
Leaning into Discomfort**

**Six Things To Know
About Your Boss**

**Eight Key Skills Needed to
Effectively Manage People**

insight.ieeeusa.org

IEEE PROFESSIONAL HOME CAMPAIGN

- At IEEE President Tom Coughlin's request, we took on producing/directing a video project to raise the visibility of IEEE members all over the globe. This **"IEEE is my Professional Home"** campaign is a continuation of something we started in late 2019 called "IEEE-USA is my Competitive Edge" – and has been highly successful.

- We filmed members in Tokyo, Japan; Glasgow, Scotland; London, England & Belfast, Northern Ireland.

- Work is ***now complete on the 7 video spots***

- NIC approved additional funding of $150k late last year to help promote the videos in 2025. 50k for Japan, 50k for the UK and 50k for US marketing purposes via streaming, cable and over the air TV.

- Spots will begin airing on those markets in the months ahead, along with organic social media, YouTube and more.

TAKAKO HASHIMOTO
COMPUTER SCIENTIST, TOKYO JAPAN

CHIPS and Science Act of 2022

The CHIPS Act is a bill that provides $52.7 billion for American semiconductor production, research and development, and workforce education initiatives123. It aims to encourage companies to move chip manufacturing back into the United States and strengthen the country's ability to compete in future technologies.

The Act also includes funding for technology deployment and workforce development

IEEE-USA funded Fellow contributed to sections of the CHIPS and Science Act
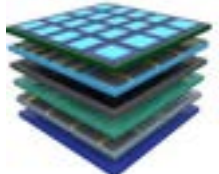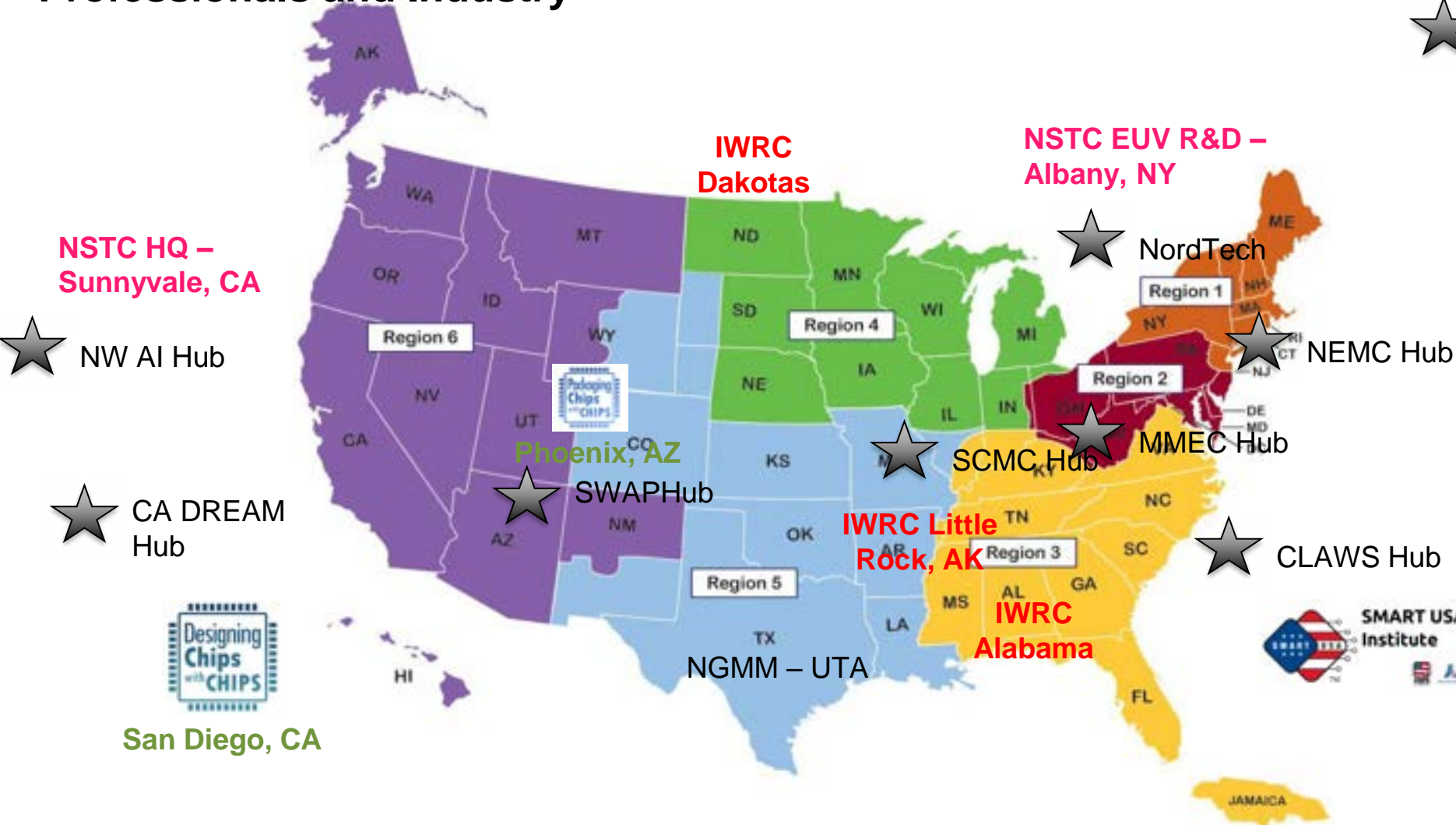
Advanced Packaging is the new paradigm for next generation microelectronics advancements
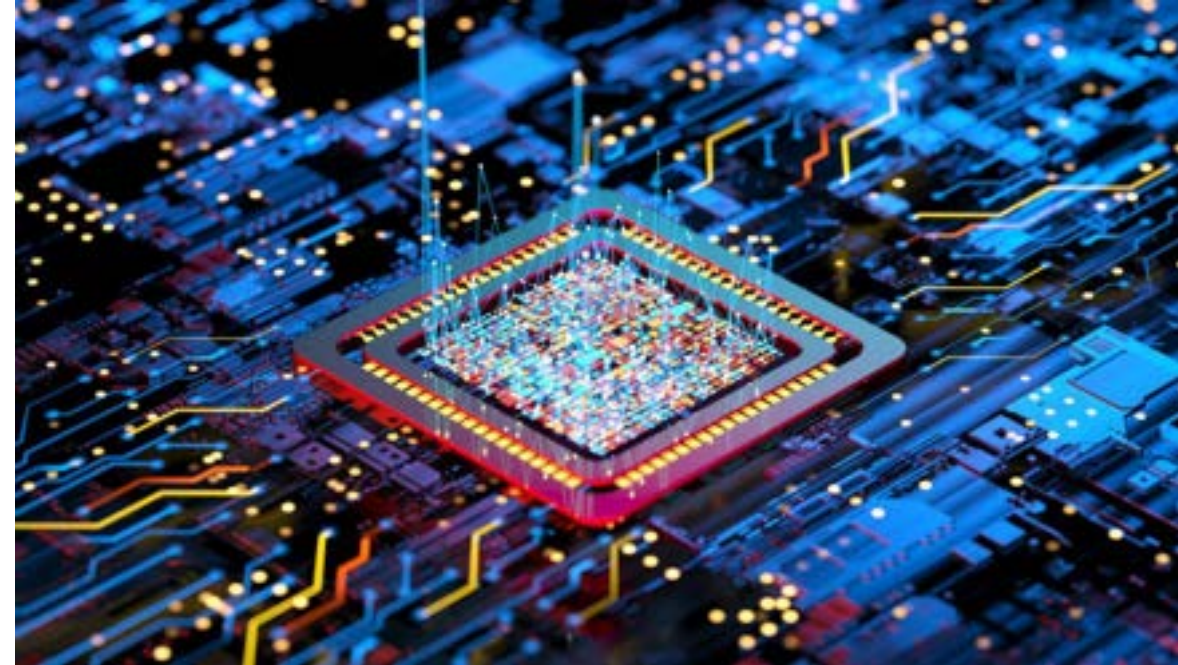
Building Infrastructure and Workforce Development

https://ieeeusa.org/ieee-usa-commends-chips-act

USG Funded R&D - Opportunities are Plentiful to engage Students, Young Professionals and Industry

NSTC HQ – Sunnyvale, CA

NW AI Hub

CA DREAM Hub

Phoenix, AZ
SWAPHub

San Diego, CA

IWRC Dakotas

NSTC EUV R&D – Albany, NY

NordTech

NEMC Hub

MMEC Hub

SCMC Hub

IWRC Little Rock, AK

IWRC Alabama

NGMM – UTA

CLAWS Hub

MICROELECTRONICS COMMONS

IEEE USA Designing Chips with CHIPS

IEEE USA IWRC

DARPA NGMM

SMART USA Institute

The Future

https://chips.ieeeusa.org/

https://iwrc.ieeeusa.org/
https://microelectronicscommons.org/
https://chips.gov

IEEE★USA

Community Discussions – Industry/Academia/Gov and more

Shared Stakeholders for Technology Advancement for Humanity:
Industry + Academia + Government

Sandra Watson, President and CEO
Arizona Commerce Authority and
Erik Heilman, Director of Government
Relations, IEEE-USA

IEEE Global Impact

SILICON MALAYSIA

Taken At PSDC. From the left, Dr. Bernard Lim, Dr. Hari Narayanan, Ms. Hazel Dieh Stoiber, and Ms. Lim Wei Chen

Semiconductor Working groups in Region 9 and Region 10 support of ATP and Workforce Development, supporting interactions between industry, government and academics to support global resilience.

Meetings with International Technology Security and Innovation (ITSI) Fund entities scheduled. Assembly, Test and Packaging footprints in areas such as **Vietnam, Philippines, Indonesia**, Costa Rica, Panama and Mexico supporting global resiliency.

Plans for upcoming Region 9 Semiconductor Summit.
Committee members active on major semiconductor groups:

- ICOS – International Cooperation on Semiconductors
- OECD - Organization for Economic Change Development
- Semiconductor Informal Exchange Network

ICOS
International Cooperation
On Semiconductors

OECD

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Global Exchange

R10 and R9 Semiconductor Working Groups Formed

Taken At PSDC. From the left, Dr. Bernard Lim, Dr. Hari Narayanan, Ms. Hazel Dieh Stoiber, and Ms. Lim Wei Chen

OECD Semiconductor Informal Exchange Network – kathyh speaker and presenter

Kathyh - Invited Speaker at Symposium on Innovation and Technology – Hong Kong

Silicon Malaysia

- IEEE Region 10 Engages with Global Semiconductors Ad Hoc Committee, Malaysia Manufacturing Companies and Malaysia Education Institutes for Semiconductor Workforce Development.

- Dr. Bernard Lim, who is the current Chair of IEEE Region 10 Ad Hoc Committee on Industry Engagement and Round Table has become a member of Global Semiconductors Ad Hoc Committee. Bernard is spearheading the collaborative efforts between IEEE Educational Activities (EA) and Malaysia education institutions to fortify the pipeline of skilled engineers tailored to meet the evolving demands of the semiconductor industry in Malaysia.

- The Outsourced Semiconductor Assembly and Test (OSAT) companies in Penang, Malaysia offer services in the assembly, packaging, and testing facilities for a wide spectrum of integrated circuits (ICs), including analog, digital, mixed-signal, SoC, and RF chips. These services range from wafer testing to qualification testing and to the final production testing of packaged devices. The OSAT market remains highly lucrative, with its Compound Annual Growth Rate (CAGR) experiencing rapid growth driven by ongoing technological advancements in the semiconductor industry. These advancements are essential to meet the increasing demands for Artificial Intelligence (AI), Machine Learning (ML), cloud computing, communications, and other emerging technologies.

- The passage of the US CHIPS and Science Act in 2022, aimed at alleviating the global chip shortage that affected over 169 industries from 2020 to 2023, has further fueled the growth of the chip industry. According to the Financial Times, in 2023, Malaysia is the world's sixth largest semiconductor exporter and holds 13 percent of the global semiconductor packaging, assembly, and testing market.

https://semiconductors.ieee.org/blog/75-silicon-malaysia

IEEE Membership – Overall and Industry, 2000 to 2024
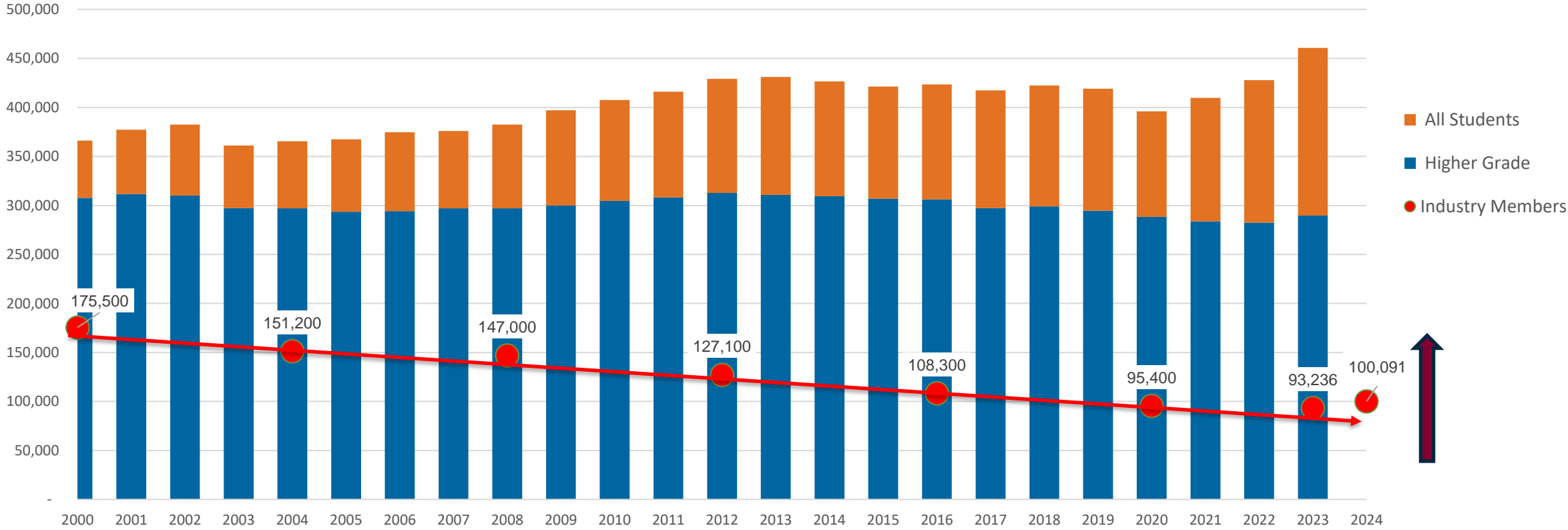
Notes:
- *Higher Grade* includes those of member grades Honorary, Associate Member, Member, Senior Member, Fellow, plus those of corresponding Life Status
- *All Students* includes Student members and Grad Student members. Grad Students was added as a separate grade in 2007
- Starting in 2003, members with Life status were required to confirm they wish to continue receiving products and services
- Red dots represent higher grade industry members (including those with Life status). From 2000 to 2020, these are estimates based on responses to Member Segmentation Survey. For 2024, this is an actual count of those indicating "Industry" in member database, as of 4 November.

Sources: IEEE Annual Statistics, Member Segmentation survey, member database

IEEE and IEEE-USA's goal to invigorate growth of Industry Membership and Participation

Percent of Members in Industry & Academia Across Regions

Region	Region Name	No Employer Type Data	Academia	Government	Industry	Other	Retired	Total HG Membership	Total Known Employer Type	Percent Unknown	Percent Industry	Percent Academia
R01	Region 1	2,634	2,683	583	7,886	1,029	435	15,250	12,616	17%	63%	21%
R02	Region 2	2,388	2,306	1,610	6,087	1,043	411	13,845	11,457	17%	53%	20%
R03	Region 3	2,633	2,964	1,238	7,683	1,207					57%	22%
R04	Region 4	1,718	2,245	315	5,734	611					62%	24%
R05	Region 5	2,275	2,208	734	8,953	1,140					67%	16%
R06	Region 6	4,189	3,043	1,948	18,070	1,647	1,003	29,900	25,711	14%	70%	12%
R07	Region 7	1,645	2,371	535	4,467	583	227	9,828	8,183	17%	55%	29%
R08	Region 8	8,983	23,819	2,487	13,788	2,052	697	51,826	42,843	17%	32%	56%
R09	Region 9	2,286	4,108	612	2,171	537	107	9,821	7,535	23%	29%	55%
R10	Region 10	17,150	47,243	4,764	15,629	1,952	833	87,571	70,421	20%	22%	67%
Total	All	45,901	92,990	14,826	90,468	11,801	4,942	260,928	215,027	18%	42%	43%

Membership Depends in creating value for Industry Members and YPs
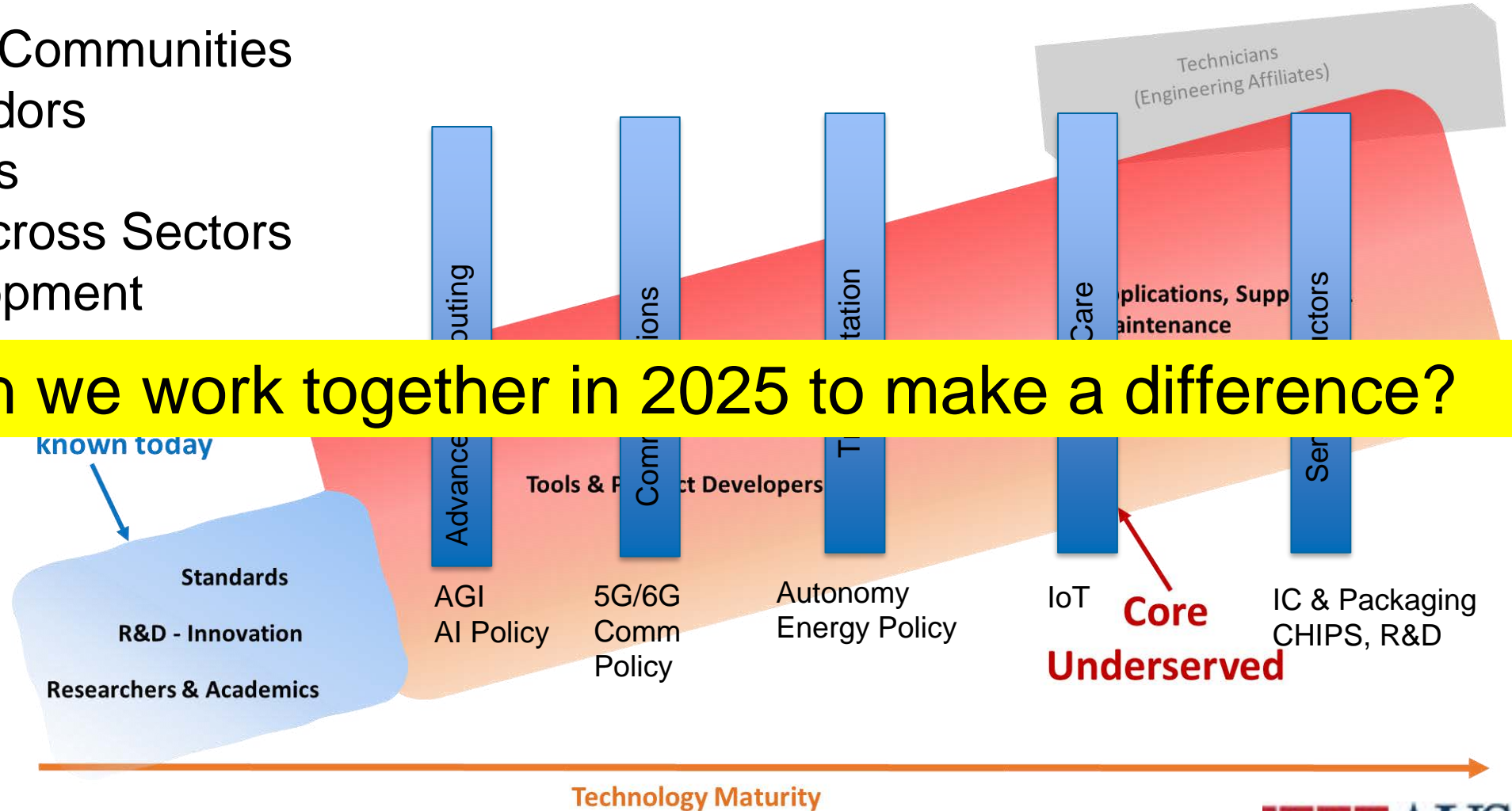
Data Source: OU Analytics
Date of Data: 13 December 2024

Let's work together across Regions and OU's to apply Best Practices for Industry Membership Growth across R1-R10!

IEEE★USA

Industry Professionals' Needs Across Verticals

- Building Tech Communities
  - Tech Corridors
  - Rural Areas
- Tech Policy Across Sectors
- Career Development
- STEM Pipeline

How can we work together in 2025 to make a difference?

Technicians (Engineering Affiliates)

known today

Standards

R&D - Innovation

Researchers & Academics

Tools & Product Developers

Advanced Computing

Communications

Transportation

Health Care

Semiconductors

AGI
AI Policy

5G/6G
Comm
Policy

Autonomy
Energy Policy

IoT

Core Underserved

IC & Packaging
CHIPS, R&D

Applications, Support, Maintenance

Technology Maturity

Industry Engagement need to focus on Verticals

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