

INSPIRING our LEADERS of TOMORROW

Meeting Title Improve IEEE Engagement in Industry

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/// 2014

Increasing IEEE Technical Activities' Attractiveness to Industrial Members

Richard Cox

The Problem

- TAB has a problem with its attractiveness to IEEE's industrial members
 - For 2012 43% of IEEE industry members belonged to any technical society, down from 52% in 2008(!!!)
 - Members from industry constitute half of IEEE's total membership
- While these statistics indicate a TAB-wide problem, the solution belongs to individual societies to become more attractive to industrial members

The Committee Charter

- Look for best practices and promising ideas that could be part of a solution
- Bring findings and recommendations to TAB

► The Committee Response

- Provide all information collected
- Bring forward three recommendations
- Surveyed 18 societies & councils

Recommendation #1 (2012)

- **Every society should begin the process of studying the problems within its field and begin to address them**
- Example Actions
 - Gather satisfaction information – survey industrial members
 - Create formal governance bodies – review statistics annually
 - Annual strategic planning
 - Create new activities, products and services
 - Create a formal messaging strategy

Details for Recommendation #1

- Each Society should have:
 - An Action Plan to address the problem
 - Specific Milestones for the Plan
 - Metrics, such as Membership Goals
 - Names of Society Members leading the effort
- TAB will provide an Annual Report to each Society on Membership Statistics in time for the June OU Series

Recommendation #2 (2012)

- **The Society Review Committee will make available the best practices and other information they uncover as a normal course of their business**
- There will be a link at the bottom of the TAB agenda to find the latest information they have uncovered during the most recent round of society reviews

Recommendation #3 (2012)

- The membership problem is one aspect of IEEE's overall relationship to industry
- There have been efforts to make IEEE more relevant to industry, both at the IEEE Board level (outreach to Boeing), and at the society level (e.g. Computer Society and other examples)
- TAB should partner with the Board and MGA on this
- **Focus for 2013: discover best practices for successful chapters**

2013 Activities

**We conducted a survey of
High Vitality Chapters**

What Questions to Ask

- Began with 3 high vitality Chapters that we interviewed in May and June
- Our goal was to find out what makes them successful
- Topics discussed included
 - Technical Meeting Planning including publicity
 - Chapter Organization including Leadership Development and Training
 - Chapter Finances
 - Membership Development
 - Industry Member participation

Selecting Chapters to Survey

- Review 2012 L31 meeting reports to find the Chapters with the most vitality
- Vitality Metrics
 - Numbers of Chapter Technical Meetings held in 2012
 - Average Attendance per meeting
- Selected 14 Societies and 5 top Chapters from each
 - At least 1 Chapter from R1-R6 and 1 from R7-R10 in all cases
 - Some Chapters are joint, multi-sponsors
- 37 of 72 Chapters responded

Overall Survey Findings

- Even these high vitality Chapters reported significant shortcomings and hurdles
- Leadership development and training seems like the most significant issue
- Financial support and where to get it is second
- Participation by industry members was mixed: for industry member participation, 10 stars out of 37 chapters

High Industry Participation “Stars”

- 9 had Chapter boards dominated by industry members (>75%)
- The 10th had an industry member who organized all meetings
- In 2012 11 Societies Boards / AdCom had 60% or greater industry memberships
 - 7 of the 10 Chapters were sponsored by societies in this set
 - 2 of the remaining 3 Chapters are sponsored by CS & ComSoc which have programs to attract industry members

2013 Recommendations

- 1. To attract greater industrial member participation at the Chapter level, Chapters should have sufficient members of their board from industry, and these members should be participating in the organization of the technical meetings**
- 2. Societies should monitor and support the growth of their Chapters, including leadership development, training, and financial support, as well as increasing industrial member participation at the Chapter level**

Final Recommendations to Increase Industrial Membership

- 1. Every society should study the problems within its field and begin to address them**
- 2. The Society Review Committee will make available the best practices and other information they uncover**
- 3. To attract greater industrial member participation at the Chapter level, Chapters should have sufficient industrial members on their boards, and these members should be participate in organizing the technical meetings**
- 4. Societies should monitor and support the growth of their Chapters through leadership development, training, financial support, and increasing industrial member participation**

Improve IEEE Engagement in Industry

Peter Kennedy

Who am I?

- ▶ Peter Kennedy, FIEEE
- ▶ Professor of Microelectronic Engineering, University College Cork, Ireland
- ▶ Chair, Solid-State Circuits Society (SSCS) United Kingdom and Republic of Ireland (UK & RI) Chapter
- ▶ UK & RI Outstanding Chapter Chair 2001
- ▶ SSCS Outstanding Chapter 2009

Who am I (too)?

- ▶ Director, Microelectronics Industry Association (MIDAS Ireland)

<http://www.midasireland.ie/>



- ▶ Scientific Director, Microelectronic Circuits Centre Ireland (MCCI)

<http://www.mcci.ie/>

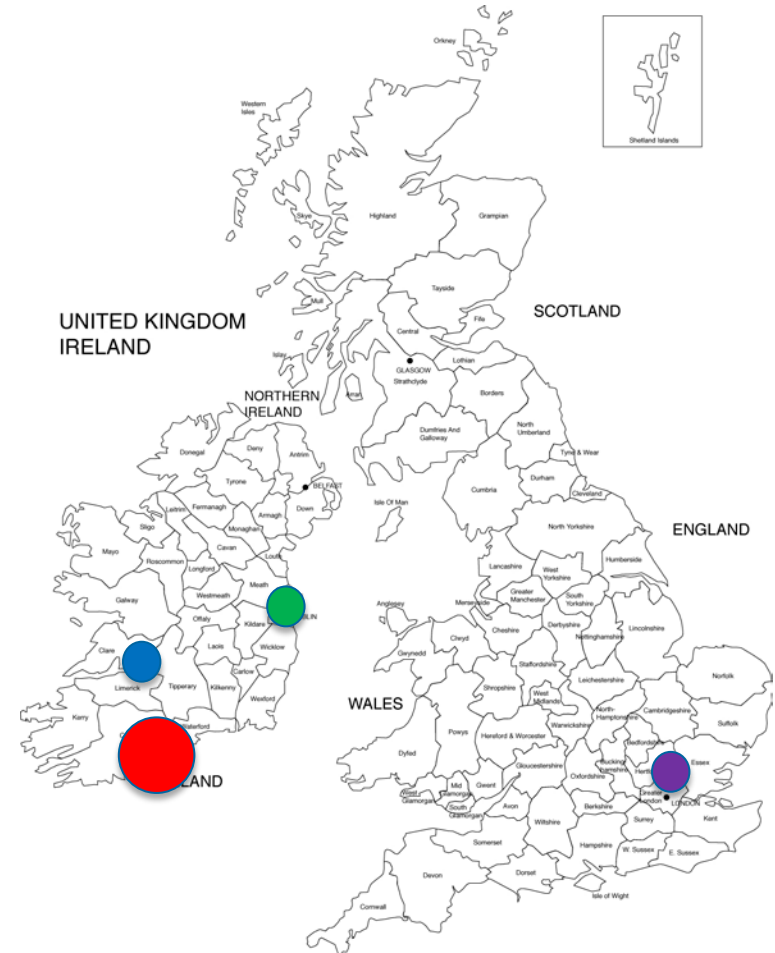


Our customer base

- ▶ Mostly integrated circuit (IC) designers
- ▶ Globally competitive industry
- ▶ IEEE is the reference point for technical excellence: International Solid-State Circuits Conference (ISSCC) and Journal of Solid-State Circuits (JSSC)
- ▶ Employers support continuing professional development
- ▶ Managers support participation by their staff

Our customer base (2)

- ▶ Industry clusters in **Cork**, **Dublin**, **Limerick**, **Cambridge**...
- ▶ Events held in **Cork**, **Dublin**, **Limerick**, **Cambridge**...



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Our customer base (Ireland)



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What does success look like?

- > 20 participants
- > 50% industry participation
- Positive feedback
- Requests for more events
- Local organizers wanting to do more
- Organizations volunteering to share speakers

What has *not* worked well...

- “Academic” topics
- “Unknown” speakers
- Short notice
- Senior membership recruitment drive
- Finding volunteers
- Chapter website
- Financial commitments

What *has* worked well

- Relevant topics
- Speakers who publish in ISSCC and JSSC
- Local organizers
- One month's notice (and reminder) via email
- Consultation with customers
- Leverage visitors (sharing)
- Match speaker to audience/venue

What has worked well (too)

- ▶ Short courses
- ▶ Mini-workshops (academic research previews)
- ▶ Industry venues

Program 2012-13

- ▶ 8 technical events
- ▶ 2 UK events
- ▶ 2 mini-workshops
- ▶ 2 industry speakers
- ▶ 2 visiting professors
- ▶ Undergraduate IC design initiative
- ▶ “Advanced Topics in Microelectronic Engineering” workshops

Optimizing interaction

- ▶ Quality first
- ▶ Relevant topics
- ▶ All events are designed to attract industry *and* academia
- ▶ Academia shows recent research results
- ▶ Time allowed for discussion
- ▶ Panel discussions at mini-workshops to promote interaction in research

Improve IEEE Engagement in Industry

Ning HUA
Senior Director, Asia Operations,

Acknowledgement

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IEEE Offices in Asia



Industry Engagement in China

- ▶ Standards
 - 33 Corporate Members from China
 - 29 Standard projects initiated by Chinese companies
 - MoUs with major Chinese SDOs
- ▶ Conferences
 - Smart Grid World Forum, etc
- ▶ Competition Programs
 - Microsoft China Students Programming Competition; IBM China Smart Planet Competition
- ▶ IEEE Day in Corporate
- ▶ Employee Membership Due Reimbursement
 - State Grid, Shenzhen Grid, etc

Industry Engagement in India

- ▶ Continuing Education Programs
 - VLSI Blended Learning Program, Embedded Skills, Cybersecurity, IPR, etc
 - SWEBOK
- ▶ Conferences/Forums
 - INTELECT (Intelligent Electricity, Jan 2015, Bombay), etc
- ▶ Standards
 - MoU with Bureau of Indian Standards (BIS)
 - Industry Connections
 - Indian low-voltage dc (lvdc) forum
 - Cloud Computing Innovation Council for India (CCICI)

Industry Engagement in Japan

- ▶ Close Academia-Industry Relationship
- ▶ Standards
 - 24 Corporate Members from Japan
 - Dialogues with Japanese Industry Associations
 - Japan Federation of Economy (Keidanren)
 - Japan Association for New Economy (JANE)
- ▶ Milestones and Awards
 - Among 25 IEEE Milestones in Asia, 23 in Japan
- ▶ Industry Promotion Committee and Metro Area Workshops

Successes and Lessons Learned

- ▶ IEEE enjoys a good brand name in Asia Pacific
 - Corporations are eager to be associated with IEEE
 - IEEE Standards = Innovation
 - IEEE Awards = Global acknowledgement
 - IEEE Education Programs = High quality
- ▶ The percentage of members from industry is relatively low in Asia Pacific
 - Need more industry oriented programs
 - Promote IEEE as a platform for corporation to communicate with peers and access global technology information
- ▶ With this region becomes more innovative, IEEE will be more relevant to industry



Thank you !

QUESTIONS

