What Is The World Up To?

A global perspective of programs for young and emerging professionals in standards development and conformity assessment.

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Outline

• Professional Background
• IEC Young Professionals Program
• USNC Activities
• International View
• Closing Remarks
Company Background

- **Hydrodynamic Engineer**
  - BS ME, UC Berkeley
  - MS, College of AE, GA Tech

- **Verdant Power**
  - NYC based
  - Tidal + River Energy
  - FERC License (Tidal)
    - 30 Units
    - 1 MW
  - International projects
    - Canada
    - UK
Standards + CA Activities

- IEC
  - TC114
    - AHG4 (Convener)
    - AHG2 (Member)
    - New PT Pending (Convener)
  - IECRE (CA System)
    - Wind, Solar, Marine
  - CAB WG15 (ME CA Scheme)
  - YP Program
    - 2011 Attendee
    - Elected Leader
Standards Activities

- **US**
  - US TAG to TC114
    - Shadow Committee Chair for AHG/PT
    - TA Elect – begin late 2014
  - USNC IECRE
    - Development underway for US Member Body
  - JTF EP
    - ANSI/USNC Joint Task Force on Emerging Professionals
  - USNC C&CEC
    - Communications and Continuing Education Committee
  - SES
    - Education Committee
Let’s Get Started

My apologies for all of the acronyms
IEC YP Program

• IEC Young Professionals (YP) Program
  – “Bringing forward tomorrow’s leaders”

• YP Workshop held at the IEC General Meeting
  – 2010: Seattle, USA
  – 2011: Melbourne, AUS
  – 2012: Oslo, NOR
  – 2013: New Delhi, IND
  – 2014: Tokyo, JPN
IEC YP Program

- Prepare young professionals so they can get more involved in the IEC
- Increase the number of national experts participating in IEC work
- Build a community of Young Professionals
- Serve the markets on a long-term basis

http://www.iec.ch/members_experts/ypp/
IEC YP Objectives

- Encourage young professionals to participate in NCs and the IEC
- Spread the word about the IEC & NCs
- Identify tools and services needed for the future
- Increase contact with industry and other key stakeholders
How the IEC YP Program Works

• Held in conjunction with the IEC GM
  – 3 day Workshop
  – Observe CAB + SMB meetings, etc.
  – Network with IEC staff and NC leadership

• Young Professional Leaders (3) elected
  – Invited to return to lead YP Workshop Sessions
  – Develop and run post-Workshop events
    • YP Manual
    • YP Case Studies
    • e-Discussions
    • Communications
How the IEC YP Program Works

• IEC NCs select up to three participants:
  – Application process
  – Manager, engineer or technician
    • Employed by a relevant industry or business
  – Aged 20s to mid-30s
  – Some experience in standardization / conformity assessment

• Follow-up activities:
  NC involvement is fundamental!
What NCs Gain

• Promote your NC’s work
• Increase national experts’ participation in the IEC
• Support national innovation
• Get your country’s young professionals involved
• Develop your professionals’ network
What Participants & Companies Gain

• Use standardization as a strategic tool
• Increase participation in the IEC
• Increase access to the best international expertise
• Influence the future of international standardization and conformity assessment
IEC Young Professionals

- 211 participants, 40 countries
- **Business areas:**
  - Academic institution
  - Consulting//Env. Asset Mgmt/Renewable Energy
  - Gov. or Public institution
  - Industry, Prof., Cons. or Trade assoc.
  - Manufacturer/Supplier/Retailer/Distributor
  - R & D establishment
  - Testing & Certification
  - Utility
  - Unknown
  - Other - Private Sector
2010 - 2011 Young Professionals:

- More than 54% increased involvement in national or IEC work
- More than 51% have joined their national equivalent programme
- More than 91% shared knowledge gained with others in their workplace
2013 Young Professionals:
• 98 % found the workshop valuable
• 96 % plan to become more involved in IEC related work
• 78 % have already contacted their NC to express interest in participation
Young Professional recommendations:

- NCs should use YPs as ambassadors
  - to identify and target stakeholders
  - to communicate benefits
- NCs should
  - promote those involved
  - open the door for YPs to participate
    - National YP Program or similar
    - NC Shadow/Mirror Committees

... Follow-up and on-going support is essential!
• Young Professional recommendations:
  – NCs need to create National Programs
    • Essential to maintain engagement
    • Provide support and mentoring structure
    • Currently, more NCs without programs
  – NCs should
    • promote those involved
    • open the door for YPs to participate
      – NC Shadow/Mirror Committees

... Follow-up and on-going support is essential!
United States YPs:
• 12 Total
• Travel expenses covered by the IEC + USNC
• Highly engaged participants
  – Significant visibility for USNC
  – Positive spotlight for employers
• Leader elected in previous 3 years
  – Jonathan Colby (2011) – Verdant Power
  – Manyphay Souvannarath (2012) – General Electric
  – Ethan Biery (2013) – Lutron Electronics
Personal Anecdote

- Significant increase in my participation at the IEC and with the USNC following the IEC YP Workshop
  - Membership on CAB WG15
  - Increased responsibilities on US TAG to TC114
  - Invited to join USNC C&CEC
  - Nominated to co-convene JTF EP
  - Invited to a number of related meetings/conferences
    - FINCA and CANENA
    - USNC Meetings
    - SES
Change Gears

Move from the IEC to National Committee activities:
  US Efforts
  International Review
Joint Task Force (JTF) on Emerging Professionals (EP)
- USNC of the IEC
  - Communications and Continuing Education Comm. (C&CEC)
- ANSI
  - Committee on Education (COE)
- Focus on:
  - New and emerging professionals in fields related to standards and conformity assessment
  - Students and educators
  - On-going education and support
• Goals:
  – Foster increased involvement from a broad range of stakeholders
  – Maintain engagement of emerging professionals in standards and conformity assessment
  – Provide national activities and programs to support on-going professional development
Proposal to ANSI Board of Directors:

- Multi-year approach starting in 2014
- Identified initial activities to begin the program
- Engage with SDOs, government agencies and universities where possible
- Leverage existing activities at partner organizations
- Evaluate component success and grow the program
USNC JTF EP

• Basic program components:
  – National Events
    • Science and Engineering Festival, World Standards Cooperation Roundtable, etc.
  – Competitions
    • ANSI COE Paper Competition
  – Communications
    • Leverage existing ANSI efforts (standardslearn.org, SBB)
  – Internships
  – Mentoring (Under development)
Beyond the United States

The Americas, Europe and Asia
International – Our Neighbors

• Mexico
  – Recognized need for good knowledge of standards
  – Task force with broad range of stakeholders
  – Identified 4 key modules
    • Importance of Standards
    • Standards and Conformity Assessment Systems
    • Practical Application of Standards
    • YP Participation
  – 7 YPs from 2010 – 2013
  – YP Leader elected in 2010

• Canada
  – No National YP Program currently
  – 4 YPs from 2010 – 2013
  – YP Leader elected in 2010
International – South America

• Brazil
  – Formed a YP Mirror Committee
  – Intention to form National YP Program
  – 7 YPs from 2010 – 2013

• Argentina
  – Recognize importance
  – No National YP Program equivalent
  – 4 YPs from 2010 – 2013
• Denmark
  – No National Program before 2012
    • Single delegate selected by NC
    • YP Leader elected in 2011
  – 1 day workshop in Denmark in 2012
    • Maximum 16 people
    • Below age 35
    • 1 year free membership on NC Mirror Committee
    • Single YP selected by peers to attend IEC YP Program
  – No Danish YP in India
International - Europe

• Germany
  – Program titled “Next Generation DKE”
  – 3 main targets:
    • Inform the next generation (Knowledge Management)
    • Acquire the next generation (Employer Branding)
    • Involve the next generation (Enterprise 2.0)
  – Put YPs on the “steering wheel”
    • Learn from YPs and fit the system to them
  – Active participation in the IEC YP Program
    • YP Leader elected in 2010
International - Europe

• Italy
  – Training program
    • ½ Day workshop once per year for YPs
    • Very positive response

• France
  – 2 part initiative
    • Standards curriculum to academia directed by the Gov’t
    • Engage more YPs in NC governance
  – YP Leader elected 2013

• Netherlands
  – Limited resources are an issue
  – No plan to develop national YP program
  – YP Leader elected 2012
• CEN-CENELEC-ETSI
  – Members are hesitant to start a pan-European program
    • Too many other activities underway
  – Focus on a European Framework for Education about Standardization
    • Joint Working Group on Education about Standards (2010)
    • Enhance knowledge/skills through education and training
    • Engage academia and enterprise to include standardization as part of lifelong learning
    • Inform/inspire students and teachers about importance of standards
Japan
- 4 Year joint effort between NC and industry
- Formal program:
  - 3 Month duration
  - 12 to 15 YPs per program
  - 50 YPs total thus far
  - Weekly lectures to YPs
  - Venue changes between Tokyo and Osaka
- In-house standards education at most large companies
  - Sony – 70% of 16,000 employees have participated
International - Asia

• Korea
  – Inspired by IEC YP, National Program started 2013
    • Funded by Korean Government and organized by KSA
    • 20 YPs per year
    • Mid-20s to Late 40s
    • Sufficient knowledge of English
    • Some standards experience
  – Structure:
    • Class room setting + project at work + practical training
  – 2014 first “class” of YPs to be selected and trained
International - Asia

• China
  – Significant training program
  – 1 to 2 month intensive training
    • Held yearly
    • Based on English language textbook
    • Introduction to IEC, standards development and other issues
  – Language practice is critical component
Wrap Up

Concerns and conclusions for your consideration
Common Issues

• International Concerns Regarding:
  – De-industrialization process underway
  – Smaller workforces and budgets in private sector
  – Diminished Government funding
  – Portion of the community nearing retirement
  – Perceived lack of interest/excitement
  – Technical experts with English language skills
Conclusions

• IEC YP Program critical to engage and excite young and emerging professionals
  – Connect to a network of peers and international leaders
  – Introduce the benefits of participation
  – Empower contributions at the NC and IEC level
  – Provide important recognition

• National Committee engagement is essential for long-term success
  – Sustained support beyond 3-day YP Workshop
  – Easier access to standards and conformity assessment work
  – Minimize financial burden on employers
  – Provide local network for participation and mentoring
Conclusions

• Access to IEC and NC is beneficial for YPs
  – Increase skill set and talents
  – Provide employer with competitive advantage
  – Need to prove value to supervisors
• YP Programme highly successful
  – Positive feedback and increased IEC and NC participation
  – USNC evaluating national equivalent
  – Many other countries are pursuing national programs
• Maintain funding to support YP and EP initiatives
• Consider nominating someone for 2014 IEC YP Program!
  – IEC General Meeting in Tokyo, 10-14 November
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