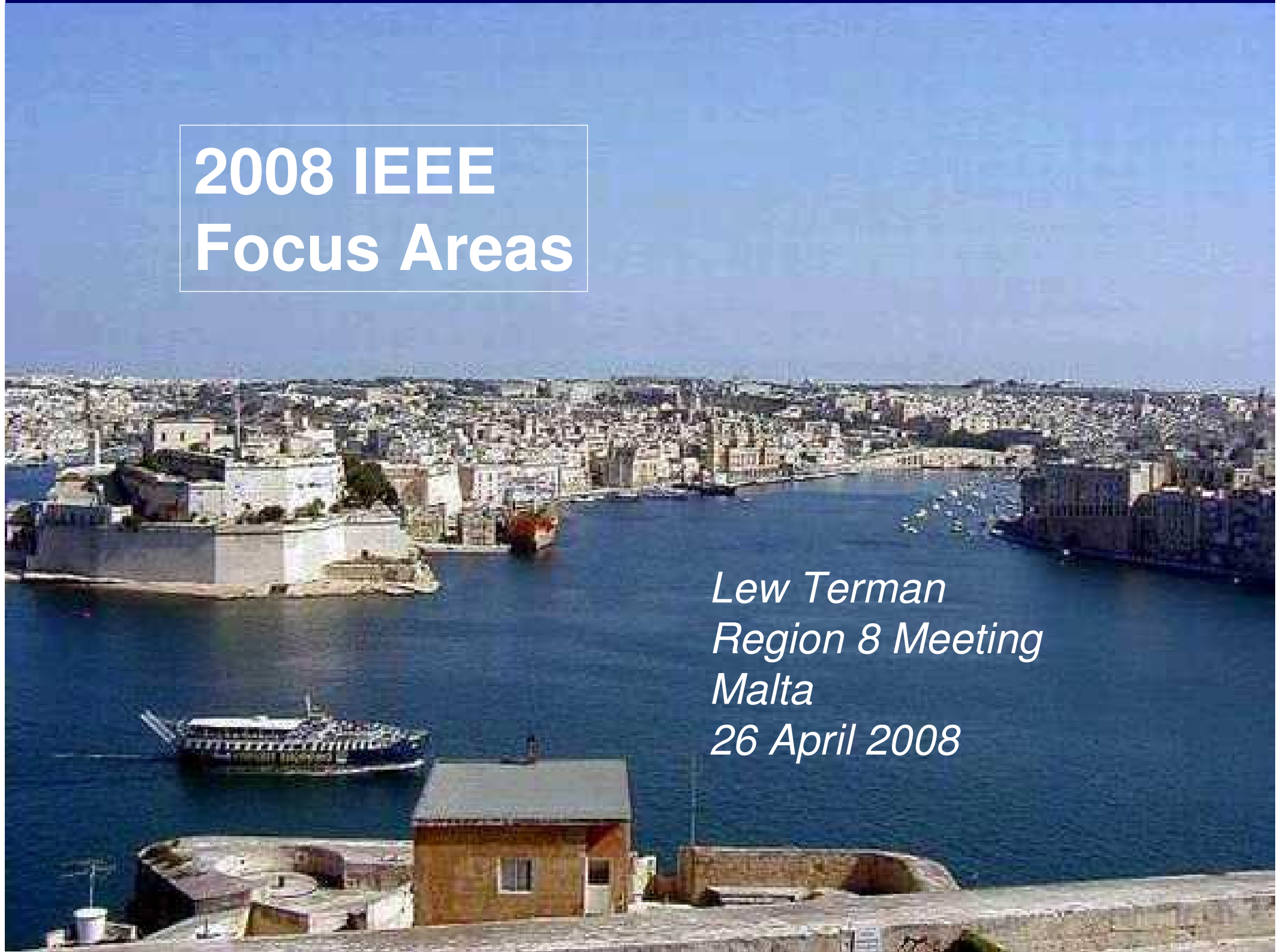


2008 IEEE Focus Areas

*Lew Terman
Region 8 Meeting
Malta
26 April 2008*



A dark blue world map is visible in the background, showing the outlines of continents and oceans. The map is centered on the Atlantic Ocean.

IEEE - the World's Largest Technical Professional Society

- **Over 375K members**
 - **Including 80,000 students**
 - **In over 150 countries**
- **~ 1,400 Student Branches**
- **324 Sections**
- **38 Societies, 6 Technical Councils**
- **Nearly 1,800 Chapters**

A dark blue world map is visible in the background, showing the outlines of continents in a lighter shade of blue. The map is centered on the Atlantic Ocean.

The IEEE Today....

- Sponsors and cosponsors more than 900 conferences worldwide
- Publishes over 30% of the world's literature in electrical and electronics engineering, computing and related technologies
- Offers over 900 active industry standards
 - Actively involved in creating 400 additional standards

Executive Director Jeffry Raynes Resigning Effective June 5



- IEEE has become a much better organization during Jeff's tenure
 - Strategic planning
 - Staff hiring
 - International presence
 - Human Resources
 - Risk management
 - Legal compliance
 - Certification programs
- Transition Plan starting
- Launching search for a new Executive Director

ED Search Committee

Lew Terman (Chair)	2008 President
Leah Jamieson	2007 President
John Vig	2009 President
Art Winston	2004 President
John Baillieul	VP PSPB
Ranga Kasturi	President, Computer Society
Joe Lillie	VP MGA Board
Moshe Kam	2009 President-Elect Candidate
Pedro Ray	2009 President-Elect Candidate
Roger Pollard	Chair PSPB Strategic Planning
Tania Quiel	Region 9 Director-Elect
Mini Thomas	Region 10 Student Activities Chair

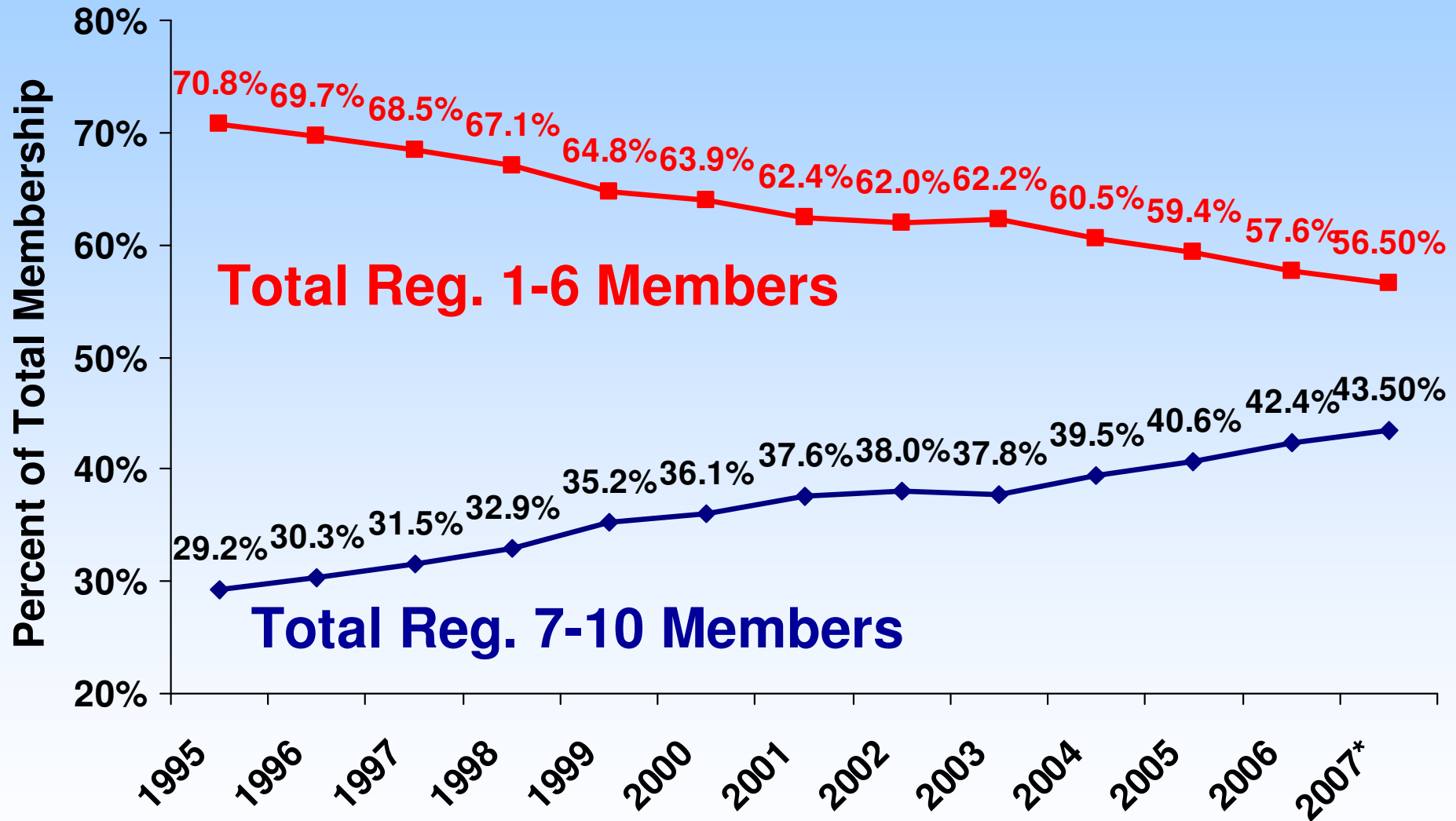
On-Going (1)

- BMS Effort
 - “Good” renewal results
 - Continuing effort to bring BMS fully up to speed
 - Understand what happened, what we’ve learned, cost
- Strategic Planning
 - Prioritize potential topics
 - Evaluate the strategic planning process
 - Establish the process for annual review of strategic directions

On-Going (2)

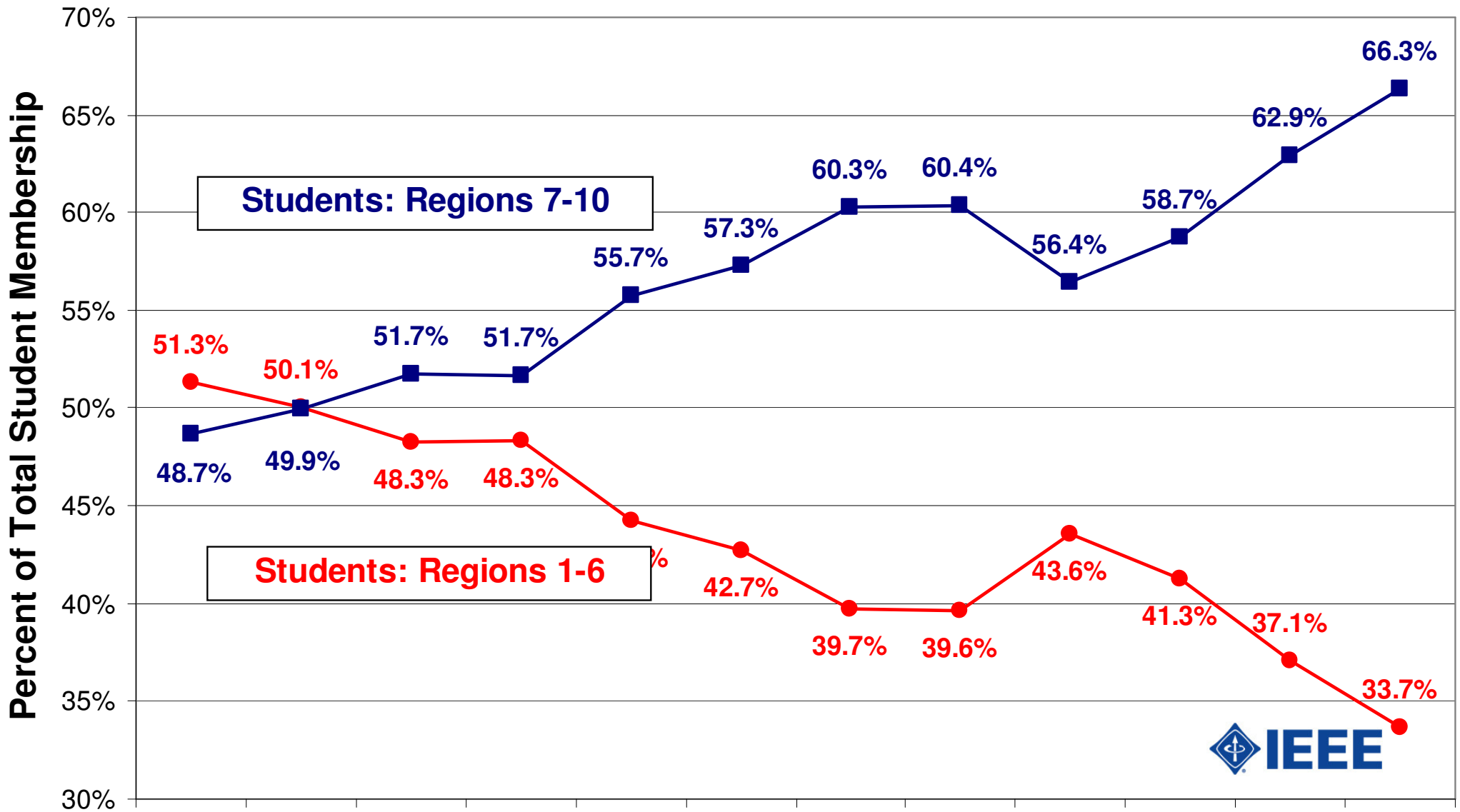
- Alternative membership models
- Public visibility of IEEE and the profession
- 125th Anniversary
- Web Presence
- Identification and support of volunteers
- Business rule simplification
- Becoming a ideal Global Organization

Globalization of IEEE Membership



*2007 Preliminary (Subject to Validation)

IEEE Student Membership



2008 Focus Items

- India Initiative
- IEEE reserves and their wise use
- Philanthropic / Humanitarian

2008 Focus Items

- India Initiative
- IEEE reserves and their wise use
- Philanthropic / Humanitarian

India Initiative

- Leader: Rangachar Kasturi, IEEE Computer Society President
- India has...
 - The second largest IEEE membership after the US
 - A very large student membership
 - A strong and rapidly growing technical community
 - A strong university-level education system with many graduates in science, engineering and technology

India has a growing present and a great future!

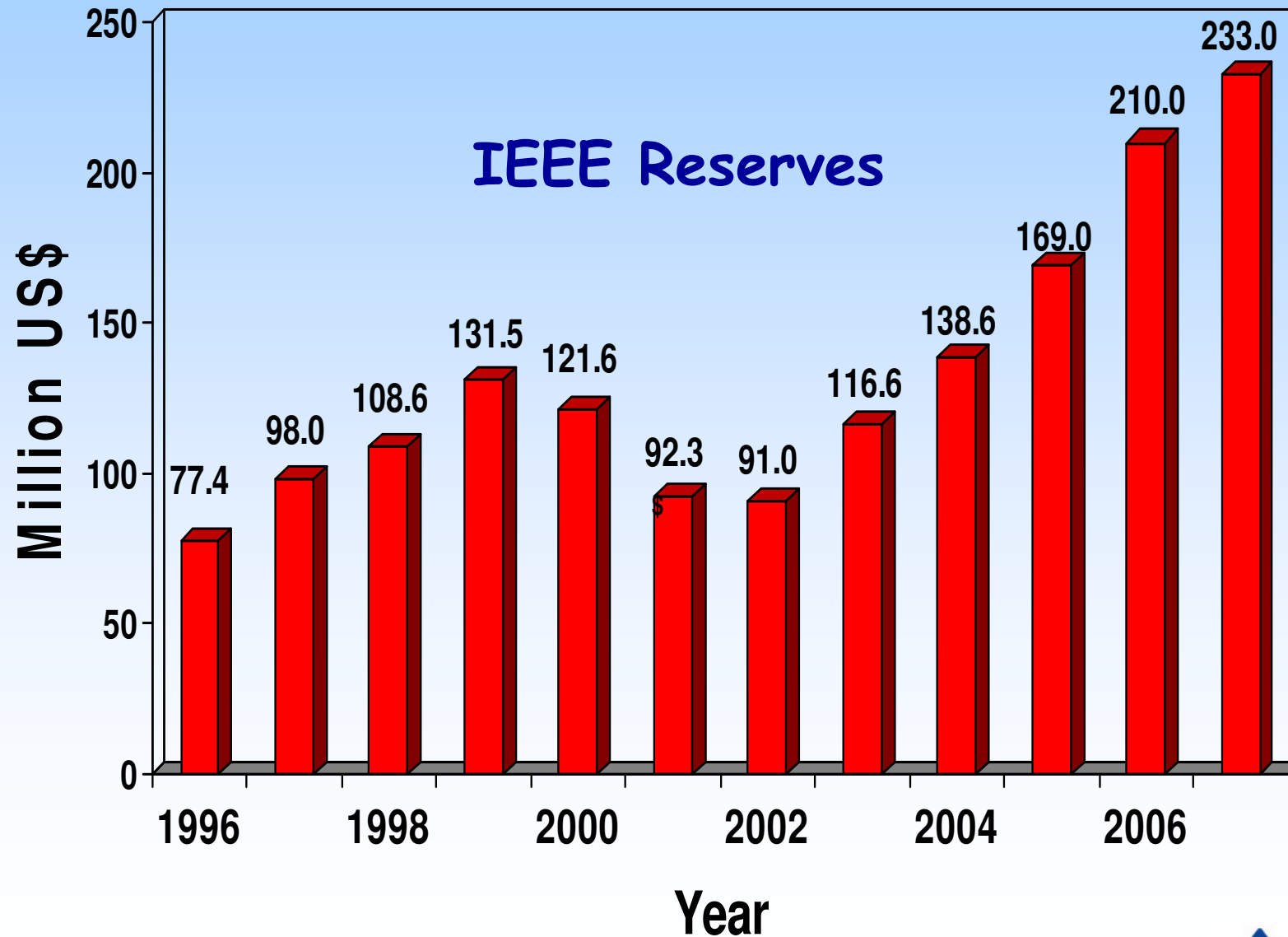
India Initiative

- Goals include:
 - Developing stronger ties/interaction with one of the world's fastest growing economies
 - Increasing membership, sections, chapters, student branches
 - Creating closer relations with industry and academia
 - Increasing technical activities, education, standards activities
 - Increasing Indian participation in IEEE activities and governance at all levels
- **Aim: An Action Plan for Nov. BoD meeting**

2008 Focus Items

- India Initiative
- **IEEE reserves and their wise use**
- Philanthropic / Humanitarian

IEEE Reserves vs. Year



2008 Focus Items

- India Initiative
- IEEE reserves and their wise use
- **Philanthropic / Humanitarian**

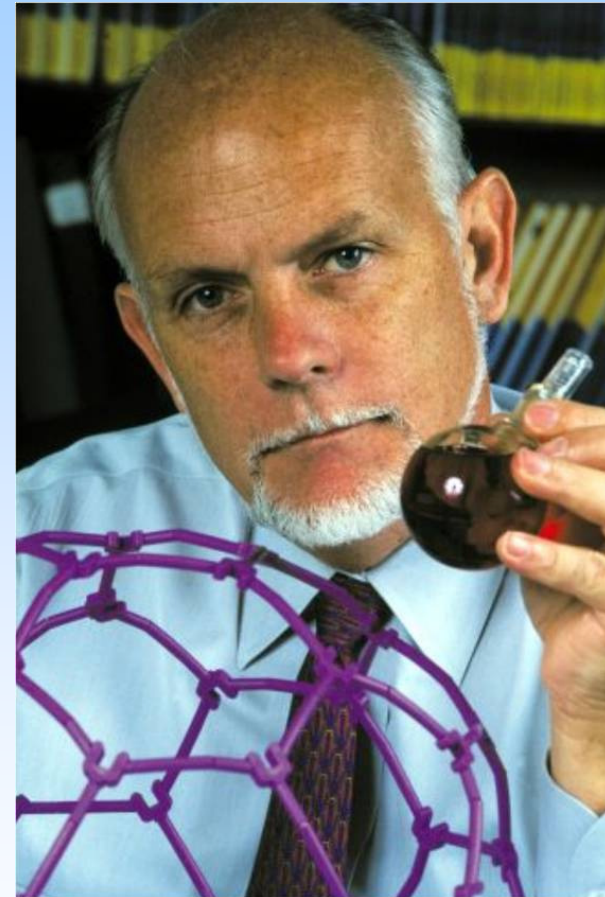
IEEE's Role in Humanitarian Endeavors

- Engineering, science, technology and the condition of the world are intimately connected
- IEEE tenets:
 - Advance global prosperity
 - For the benefit of humanity
- Humanitarian activities of increasing interest to IEEE volunteers, students



Humanity's "Top Ten" Challenges for the next 50 years

- Energy
- Water
- Food
- Environment
- Poverty
- Terrorism & War
- Disease
- Education
- Democracy
- Population



***Richard Smalley,
Nobel Laureate***

New Directions

- Historically
 - Focus on improving technology and its application
 - Generating, exchanging, and archiving information
 - THIS ACTIVITY WILL CONTINUE
- New:
 - Focus on the societal problem
 - Collaborate: large and unusual partnerships between technical, social, humanitarian and government groups
 - Determine possible solution paths
 - Develop living best practice solutions that are
 - Adaptable
 - Flexible
 - Extendable

The IEEE and GEOSS

- Group on Earth Observation (GEO)
 - 72 members including the European Union
 - 46 participating organizations
- Global Earth Observation System of Systems (GEOSS)
 - a comprehensive, coordinated, and sustained system to monitor the changing state of the planet
- IEEE Committee on Earth Observation (ICEO)
 - New IEEE journal
 - New on-line magazine
 - On-line game
 - Standards
 - Best Practices
 - Workshops – 18 held in 2 years



Humanitarian Technology Challenge

- Joint Project with United Nations Foundation
- New IEEE Initiative fully funded
- Volunteer Leadership
 - Steering Committee named
 - Society Partnership Group in formation
 - Geographic Partnership Group sought
- Focus Groups being held with humanitarian organizations to identify a few challenges with potential technology solutions
- Solutions process to begin 4Q08 with kickoff conference, followed by workshops and web tools



Sustainable Infrastructures



Disaster First Response, Management and Recovery



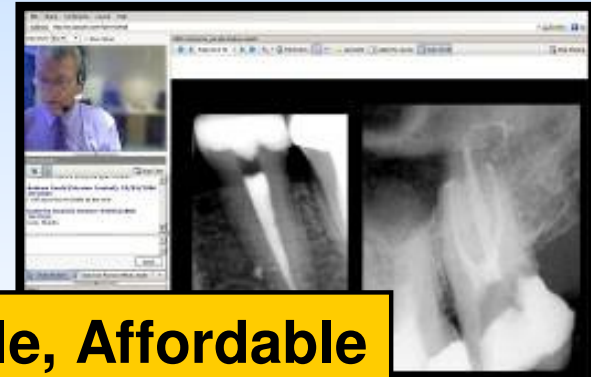
UN Foundation and IEEE areas of mutual interest



Environment-Climate Change



Available, Affordable Healthcare

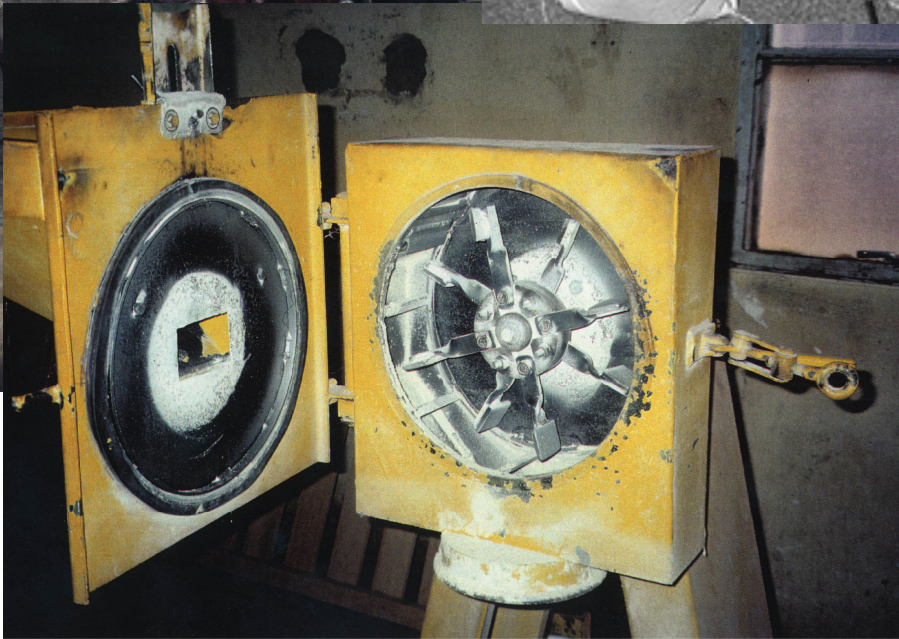


URL: <http://www.ted.com/index.php/talks/view/id/2>

..... or Google: "Amy Smith" + TED

“MIT engineer Amy Smith designs ingenious low-cost devices to tackle tough problems in developing countries”





Engineering Projects in Community Service (EPICS)

- Founded at 1995 at Purdue University
- Now has 18 Universities W/W
- Application of engineering knowledge to real world problems
- Students learn:
 - Communication
 - Customer awareness
 - Project management
 - Leadership/Professionalism
 - Community involvement
- Highly regarded by students, faculty, community



IEEE 2007 President
Leah Jamieson

From *The Hindu*, India's Largest Circulation Newspaper

Sampathkumar
Veeraraghavan
IEEE GOLD Member



10 FROM THE SOUTH

Software to evaluate developmental disorders in children unveiled

Based on a computational questionnaire matrix, which can be used as a pre-clinical tool

M. Dinesh Varma

CHENNAI: Now, a software matrix of 48 questions can, perhaps, give you vital leads on a pervasive development disorder like autism more quickly than a year or two of clinician visits.

The Automated Software Screener for developmental disorders, developed by a Chennai-based engineer-doctor team, is based on a computational questionnaire matrix that can be used as a pre-clinical tool to evaluate whether a child's development milestones are age-appropriate.

Forum floated

"We initially set out with a questionnaire of around 200

enquiries. The subsequent pruning based on inputs from experts has helped make the matrix more reliable and sensitive," said Sampathkumar Veeraraghavan, computer science expert, who developed the software along with young general physician Karthik Srinivasan.

The computer scientist and medical practitioner had come together to contribute to a social cause by floating Brahmam, a forum aiming to develop technological aids for physically challenged people, that eventually led to the creation of the software.

The software framework of the screener comprises an automated screener system, a report generator system and gaming techniques (which

- Software allows even uninitiated to do a preliminary disability screening
- A parent using it can be reassured child is attaining development milestones

are being fine tuned). Based on the responses given by the primary care taker, the screener evaluates the child in the areas of fine and gross motor, social and language.

At the end of the screener sessions — a typical session takes no more than 25 minutes — the screener will send a comprehensive report stating whether the child demonstrates any symptoms for developmental disorders or not.

The software developers

propose to dedicate the software tool free of cost to schools across Tamil Nadu some time next month.

The software's value lies in the accessibility it provides for rural areas and the simplicity that can guide even the uninitiated to do a preliminary disability screening.

"Importantly, even a lay parent using the software can now be reassured that the child is attaining the development milestones," said Jaya Krishnaswamy, director

of the Madhuran Narayanan Centre (MNC) for Exceptional Children, which played a key role in field testing the tool.

Schools are an ideal starting point for implementing the software-based screening model, said Mr. Sampathkumar.

If trained, teachers will be able to shortlist children suspected of a development delay and refer them for evaluation by an expert clinician.

"We are thinking of making the software available across the country once the piloting in Tamil Nadu is successful," said Mr. Sampathkumar.

The screener has already proved to be a reliable index of disability from trials in-

volving disability experts and expert clinicians, and won awards and accolades at several international forums.

It has also won for Mr. Sampathkumar the Institute of Electrical and Electronics Engineers (IEEE)'s Regional Activities Board (RAB) GOLD Achievement award and the IEEE Asia Pacific GOLD award for 2007.

According to the software developers, a multi-lingual version of the screener is under development.

In conjunction with the launch of the software next month, it is also proposed to open a web portal where parents can access the screener to make a preliminary assessment for childhood development delays.

IEEE Humanitarian Effort

- IEEE has the technical expertise
- IEEE/MGA Board has the worldwide presence
 - Get local Sections, Chapters, Student Branches involved
- IEEE has funding: New Initiative Seed Grant can be applied for up to US\$25,000, other funding including IEEE Foundation grants
- We want your participation - ideas, programs, action

Thank you for your attention...

Questions?