

## Serving the Entire Materials Community

*MRS has adopted the goal of serving 25,000 members by 2015.*

It is our obligation to solve the materials problems that threaten the well-being of our species. Energy availability is one such global challenge that requires the full intellectual engagement of the world's materials community. In 2005, the Materials Research Society adopted a goal to attain a membership of 25,000 by 2015, doubling in 10 years, to help do our part. This challenging goal is *mandatory* to meet science policy goals.

MRS now has grown to a record 14,100 members, and we have been growing by 5% per year. Since doubling requires 7% growth over 10 years, the proposed target is reasonable.

The MRS database has 80,000 names of members, past-members, and other professionals *who could benefit by membership*. Therefore our membership represents one-fifth of the total U.S.-centered pool. Considering the size of other societies based in the United States, it is reasonable (and challenging) to aspire to one-third of the pool, but how fast? Consider the global pool.

There are 13 adhering bodies to the International Union of Materials Research Societies totaling 56,000 members in 2006 and growing rapidly. With the exception of the venerable European-MRS, these younger IUMRS societies serve perhaps one-tenth of their respective pools. Hence, there are ~500,000 professionals involved in the global materials research and development effort. Now consider the timeline for just one global issue, energy.

We have only 50 years to implement a sustainable energy portfolio.\* For a given technology, say solar, studies have identified a half-dozen Nobel-level materials challenges.† If the future portfolio consists of ~10 technologies and conservation measures, we need a Nobel-level materials breakthrough *every year* for the next half century! Even Newton stood “on the shoulders of giants”; by his Powers-of-Ten Rule (i.e., for every 10 good ideas, one is pursued; for every 10 ideas pursued, ...), the global pool of 500,000 materials R&D people *might* be enough to meet energy research needs. Since energy is not the



*“MRS helps researchers work more effectively.”*

*Alan Hurd*

only global problem—potable water is another—*doubling the pool of materials researchers by 2050 is prudent*.

MRS helps researchers work more effectively. Our products are networking and dissemination of information. Because our members represent the world's top research institutions and

come predominantly from industrialized nations who consume more energy per capita than others—and the United States consumes twice that again—we have a greater obligation. With the year 2050 only six thesis generations away, doubling our membership by 2015 is one way to do our part.

Finally, science policy argues for doubling. U.S. funding for physical sciences will double within 10 years under the American Competitiveness Initiative while Europe and Asia have similar growth. *In other words, policymakers are asking us to double.*

MRS retains 68% of members annually (similar societies expect 90%) and fewer (40%) are “core members” who return consistently. The remaining “dynamic members” appear to be driven by meetings programming in emerging topics that come and go. They are a source of dynamism in the Society.

Aggressive programming of emerging topics is a way to feed the dynamic members to the limited extent our meetings can grow in our current venues. Boston and San Francisco allow us to tap local top-flight speakers while preserving our cherished meetings atmosphere.

Our MRS One-Minute Poll in March asked *Should MRS add a third meeting mid-year?* International respondents said *Yes*, while U.S.-based respondents said *No*

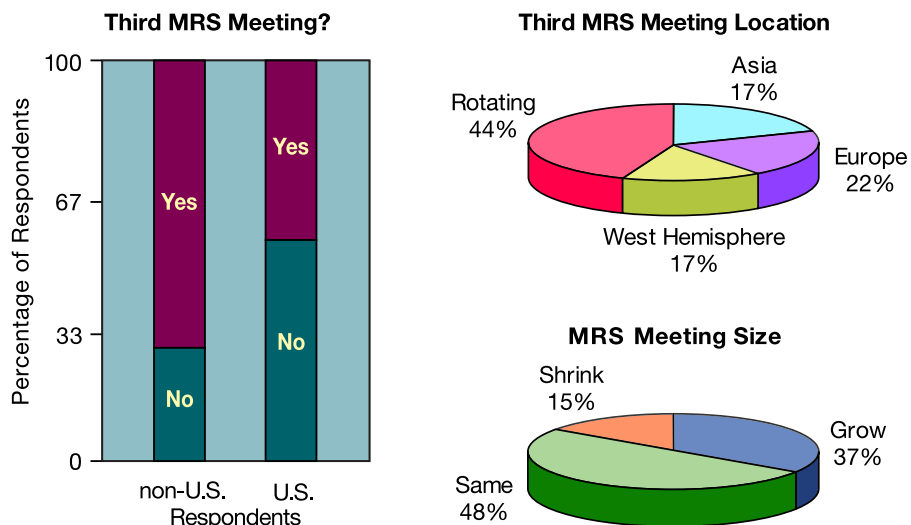


Figure 1. MRS One-Minute Poll taken in March 2007, *Should MRS add a third meeting mid-year?* showed equal and opposite Yes/No answers from non-U.S.- and U.S.-based respondents, respectively. Overall, 53% said *No* (9% margin of error), and among the 47% who said *Yes*, location preferences were uniformly split, with “Rotating” locations the top choice. As for the size of MRS meetings in general, 48% like the current size and 37% advised growth. The majority who like the current size also advised against a third meeting.

\*Statement made by 2007 MRS Spring Meeting plenary speaker Nathan S. Lewis (California Institute of Technology)—see <http://nsl.caltech.edu/energy.html> and 2004 MRS Fall Meeting Symposium X speaker Richard E. Smalley (Rice University)—see *MRS Bulletin* 30 (6) (June 2005) p. 412.

†See Department of Energy Web site [www.er.doe.gov/bes/reports/list.html](http://www.er.doe.gov/bes/reports/list.html).

with equal two-thirds majorities, both preferring to rotate location internationally (see Figure 1). However, core members do not want a third meeting.

We also asked for opinions about meeting size (see Figure 1). There was a universal preference (85%) not to shrink meetings. (Notably, first-time attendees wanted smaller meetings.) About one-third of respondents advised growing the meetings.

International meetings have both intel-

lectual appeal and potential for growth. The joint meeting with MRS-China planned for China in 2008 will be an excellent opportunity to learn about Chinese materials research. Given the growth in China, this meeting could be a future anchor for MRS membership.

Students may be the key to robust future growth and retention. About 10% of our student members stay with MRS; enticingly, retention may be higher for those whose first professional meeting is at MRS.

I believe in the goal to double the MRS membership. I am encouraged by our strong recent meetings where I see valuable interactions. Our growth must be a combination of more symposia—at existing meetings or new ones—and higher retention. It is our obligation to provide and protect our forum for open scientific exchange.

ALAN J. HURD  
2007 MRS President