

MRS and Sustainable Development

Ashley A. White, PhD

Chair, MRS Focus on Sustainability Subcommittee

awhite@lbl.gov

Outline

- Timeline of MRS involvement in sustainable development activities
- Spring 2016 programming
- New subcommittee – Focus on Sustainability – and goals
- Discussion: *How can MRS support the needs of materials science and engineering education that promotes integrated approaches to sustainable development?*

Timeline

MRS Bulletin,
Energy Quarterly

Technical
symposia

pre-2011

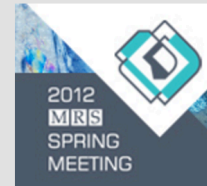
Fall
2011



2011 World Materials Summit
L'Enfant Plaza Hotel | Washington, DC | October 9-12, 2011



The Many Facets of Sustainable
Development



2012 MRS Spring Meeting & Exhibit

April 9-13, 2012
San Francisco, California

Meeting Chairs: Lara A. Estroff, Jun Liu, Kornelius
Nielsch, Kazumi Wada

Spring
2012

Timeline

Sustainability Forum—Building Teams to Tackle Complex Problems



2012 MRS Fall Meeting & Exhibit

November 25-30, 2012
Boston, Massachusetts

Meeting Chairs: Chennupati Jagadish, Thomas Lippert,
Amit Misra, Eric Stach, Ting Xu

Summer
2014



Fall
2012



Fall
2014

Timeline

MRS Board
approves FoS
subcommittee –
1st “topical”

Spring
2016

??

Fall
2015





IMPACT

of Materials on Society

New for the [2016 MRS Spring Meeting](#) in Phoenix

Stop by the IMOS booth in the [Public Outreach Center](#) to see the new curriculum materials and speak with content developers.

The [Impact of Materials on Society subcommittee](#) partnered with faculty from engineering, liberal arts and sciences and education at the University of Florida to develop an introductory level course suitable for undergraduate and community college students. This course teaches students that engineering shapes and is shaped by social and cultural variables, and that a career in engineering is not only about math and science, but also about social problem-solving.

Strange Matter Green Earth

Strange Matter Green Earth is a new pioneering educational venture developed by the [Materials Research Society](#). It is an international traveling materials science exhibition that will enable millions of people across the globe to explore ways in which advances in materials can lead to a more sustainable future. Visitors will discover the story of the co-evolution of man and materials, and learn how materials, the stuff of history, will meet the needs of the present without compromising future generations to meet their own needs.

Building on the incredible success of the [MRS Strange Matter traveling exhibition](#), Strange Matter Green Earth aims to empower the world's citizens to make sustainable choices in their own lives and communities.



Spring 2016 FoS Program

- EE15: Materials for Sustainable
Integrated Approaches
- Half-day session devoted to industrial sustainability
- Tutorial on teaching materials and sustainability
- Professional development seminar on integrating sustainability principles into your courses
- MRS University Chapter poster event: “Sustainability in My Community”
- Hands-on outreach activities

- Recognition of lifecycle impacts – energy, water, environment, human health, material supply
- Relationship to other disciplines – industrial ecology, environmental science, civil/env engineering, environmental health, policy, economics, social sciences

New subcommittee: Focus on Sustainability

- Draft goal:

Support MRS symposia, tutorials, and other activities that promote materials enabling sustainable technologies/devices AND that encourage integrated approaches to sustainable development

- How can the new subcommittee support the needs of MSE education that promotes integrated approaches to sustainable development?