



Sustainable Manufacturing User Group

Orientation and 1st Session
July 9, 2008

Bill Stough
Sustainable Research Group



Michigan Manufacturing Technology Center-West brought to you by The Right Place, Inc.

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Facilitator:

Bill Stough

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- **Faculty:**

- **Dr. Clinton Boyd**, Sustainable Research Group
- **Dr. Matt Tueth**, Aquinas College, Center for Sustainability
- **Dr. Deborah Steketee**, Aquinas College, Center for Sustainability
- **Richard Fleming**, Continuous Improvement Associates
- **Bill Stough**, Sustainable Research Group

- *User Group Staff:*

- Amy Winkler, MMTTC at the Right Place, Inc.
- Jessica Onan, Aquinas College, Center for Sustainability
- Lisa Locke, Sustainable Research Group



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AGENDA

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|-------|--|
| 8:30 | 1. Introductions – Bill Stough |
| 8:40 | 2. Orientation to User Group Series - Bill |
| 9:10 | 3. Session One – Dr. Matt Tueth |
| 10:30 | 4. Break |
| 10:45 | 5. Session One – Continued - Matt |
| 11:50 | 6. Assignment for Session Two |
| 12:00 | 7. Adjourn |

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- **Assumption: you are involved because you believe or suspect:**
 - Our industrial economy is contained within and dependent upon the natural world.
 - The natural world is not separate from the human economy.
 - All of our basic life needs – breathing, drinking, and eating are entirely dependent on the continuing capacity of the natural world to provide us with pure, uncontaminated air, water and food.
 - Scientific evidence is mounting that the natural world is becoming increasingly impaired in its capacity to provide us with these vital services.

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- There is a better way and the human economy and the natural world do not have to be in conflict.
- Businesses have an important role to play in leading the way to a safer and more productive future by aligning the business economy with the economy of nature.
- In such a world, all of the products and materials manufactured by industry should after each useful life provide nourishment for something new; products that do not biodegrade should be designed to continually circulate within closed-loop industrial cycles.

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- To accomplish these goals we must redefine our world view to accept that nature's ability to serve humanity is not infinite.
- The concept of achieving environmental sustainability is an alternative world view that addresses humanity's relationship with nature, and;
- Adopting sustainable business practices can lead to true business opportunities that are based on new sources of creativity, innovation and profits.

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“Everyone talks about sustainability, but no one knows what it is.”

Dr. Karl-Henrik Robert



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In order to develop a definition that will be helpful to your organization, it needs to develop a common language and a philosophical framework to act as compass settings for its journey toward sustainability.

As self-identified sustainability champions in your own companies, the goal of this user group is to help provide a common language and framework to assist you as you set the compass direction at work...

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- **Session One:** Developing a Sustainable Business Vision
- **Session Two:** An Environmental Systems Approach to Manufacturing
- **Session Three:** Lean and Green Value-Stream Mapping
- **Session Four:** Green Chemistry and Engineering & the Coming Bio-based Economy
- **Session Five:** Bio-Industrial and Next Generation Environmental Technologies
- **Session Six:** Understanding Risk, Hazard, Exposure; and Chemical Assessment Tools
- **Session Seven:** Climate Change and De-carbonization
- **Session Eight:** Stakeholder Engagement, Ethical Treatment, Policies and Procedures
- **Session Nine:** Sustainable Manufacturing Metrics
- **Session Ten:** Corporate Sustainability Reporting

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Session One: **Developing a Sustainable Business Vision**

Dr. Matt Tueth
Center for Sustainability
Aquinas College



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