



Implementing Sustainable Practices in Environmental Management Systems: the Cultural Change Game

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Training Objectives



- Create awareness of sustainability and its relationship to your organization's mission and activities
- Create awareness of general content of training resource on *Integrating Sustainable Practices into Environmental Management Systems (EMSs)*
- Assist in identification of near term sustainable practices for your program
- Offer strategies for coordination and communication that can be used to expand relationships among EMS managers and site operations and activities managers

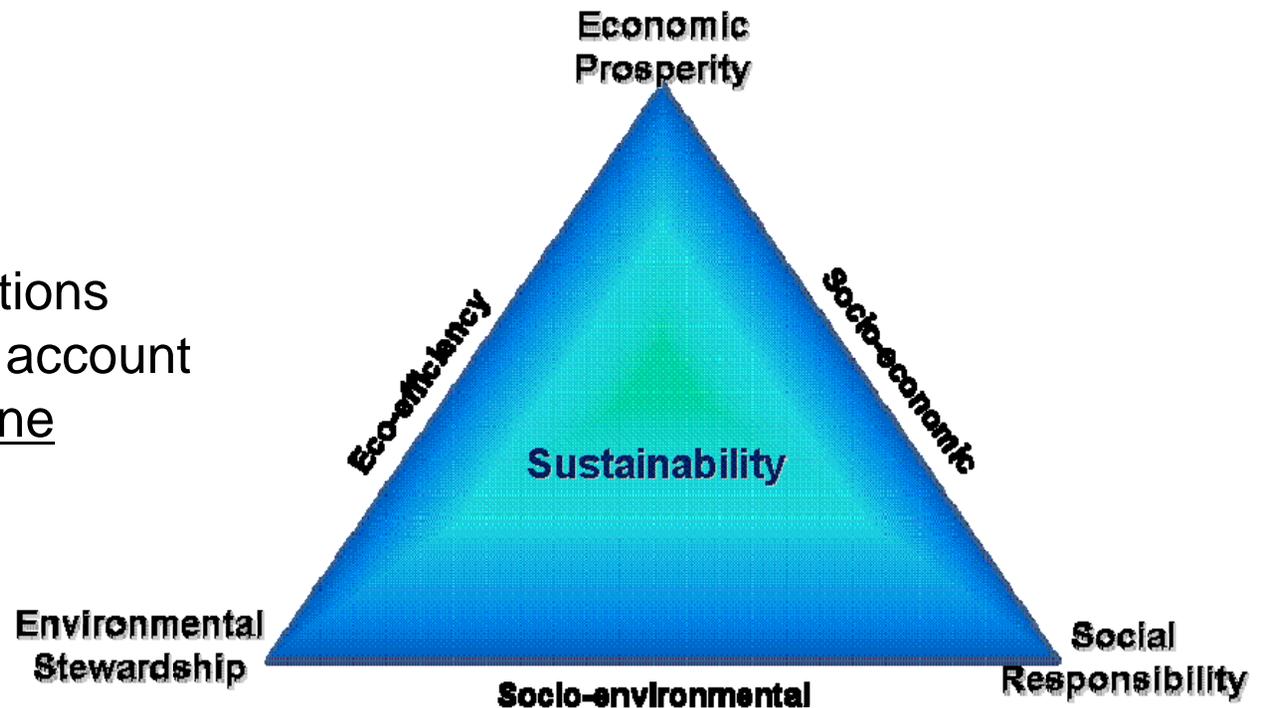


What does it mean to be a sustainable organization?



“Development that meets the needs of the present without compromising the ability of the future generations to meet their own needs.”
- United Nations Brundtland Commission

Sustainable organizations strive to balance and account for the triple bottom line





Sustainability in DOE Drivers and Requirements



- DOE implements Executive Order 13423, *Strengthening Federal Environmental, Energy and Transportation Management*, through two Orders:
 - DOE O 450.1A, *Environmental Protection Program*
 - DOE O 430.2B, *Departmental Energy, Renewable Energy and Transportation Management*
- Both Orders require use of EMSs to implement sustainable practices and achieve Department's sustainable environmental, energy and transportation goals



Training Resource on Sustainable Practices



- The Office of Environmental Policy and Assistance developed a resource document to complement this training to assist DOE sites in
 - Understanding how their operations might impact the environment and the site's carbon footprint, and
 - Involving “owners” of operations and activities in implementing sustainable practices necessary to achieve DOE sustainable goals
- Approach suggested by site contractor personnel
- This training material to be available at <http://www.hss.energy.gov/nuclearsafety/env/>



Organization of Training Resource



- Structured to engage a range of audiences including “owners” of **site operations and activities** that are typically found at DOE sites, including:
 - Building operations and maintenance
 - Design & construction
 - Fleet management
 - IT management
 - Procurement/purchasing
 - Production and processing
 - Security
 - Utility management
 - Waste management



Matrix



- Illustrates the cultural change DOE needs to make and potential interrelationship of
 - site operations and activities,
 - sustainable practices, and
 - the Department's sustainable environmental, energy, and transportation goals
- May identify some untapped resources or partners
- Should be tailored to specifics of site and mission
- Indicates that a team approach is the way to go



MATRIX *(example)*



	Building Operations and Maintenance	Design and Construction	Fleet Management	IT Management	Procurement / Purchasing	Production and Process Operations	Security	Utility Management	Waste Management
<u>HIGH PERFORMANCE AND SUSTAINABLE BUILDING:</u>									
<u>(1) Install sustainable building materials and practices throughout the Department's existing building assets.</u>	●	●			●		○		●
<u>(2) Achieve LEED Gold certification for all new construction and major renovations in excess of \$5 million.</u>		●			○		○		○
<u>(3) Comply with Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings for buildings below \$5 million.</u>		●			○		○		○
<u>(4) Ensure 15% of the Department's capital asset building inventory incorporates the sustainable practices of the Guiding Principles for energy and water related principles. (430.2B goals)</u>	●	●			○		○	○	
<u>(5) Labs21. The Department must use programs such as the Labs21 partnership to encourage the development of sustainable, high performance, and low-energy laboratories. (430.2B at section 4.c(7))</u>		●			●	●			

KEY:

"solid" circle = direct role of specified operation/activity in implementing specified sustainable practices to achieve specified goal

"open" circle = supporting role in implementing specified sustainable practices to achieve specified goal



Where are your upcoming priorities?



- What are the top 3 to 5 sustainable practices you want to pursue over the next 12 months?
 - Identify the organizations you will need to involve.
 - Write down the name and/or specific position you will need to contact first to get started.

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Sustainability Means Teamwork



- Bringing the team together and working effectively is critical to a successful EMS.
- Assess benefits to operations; include personnel who plan and do the work.
 - Energy efficiency
 - Life-cycle cost-effectiveness
 - Safer operations
 - Lower regulatory liability and compliance cost.



7 Habits of Highly Effective EMSs

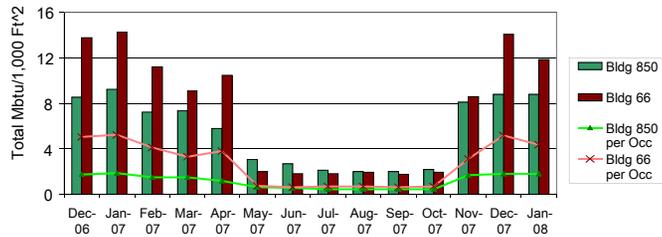


1. Form the “right” team
2. Engage leadership
3. Identify goals and action plans
4. Take action
5. Measure and communicate performance
6. Get feedback
7. Adapt goals, develop new actions and act again

Or should we say: Plan-Do-Check-Act?



Great idea + data + buy-in + action
 + communication + feedback
 = Success 





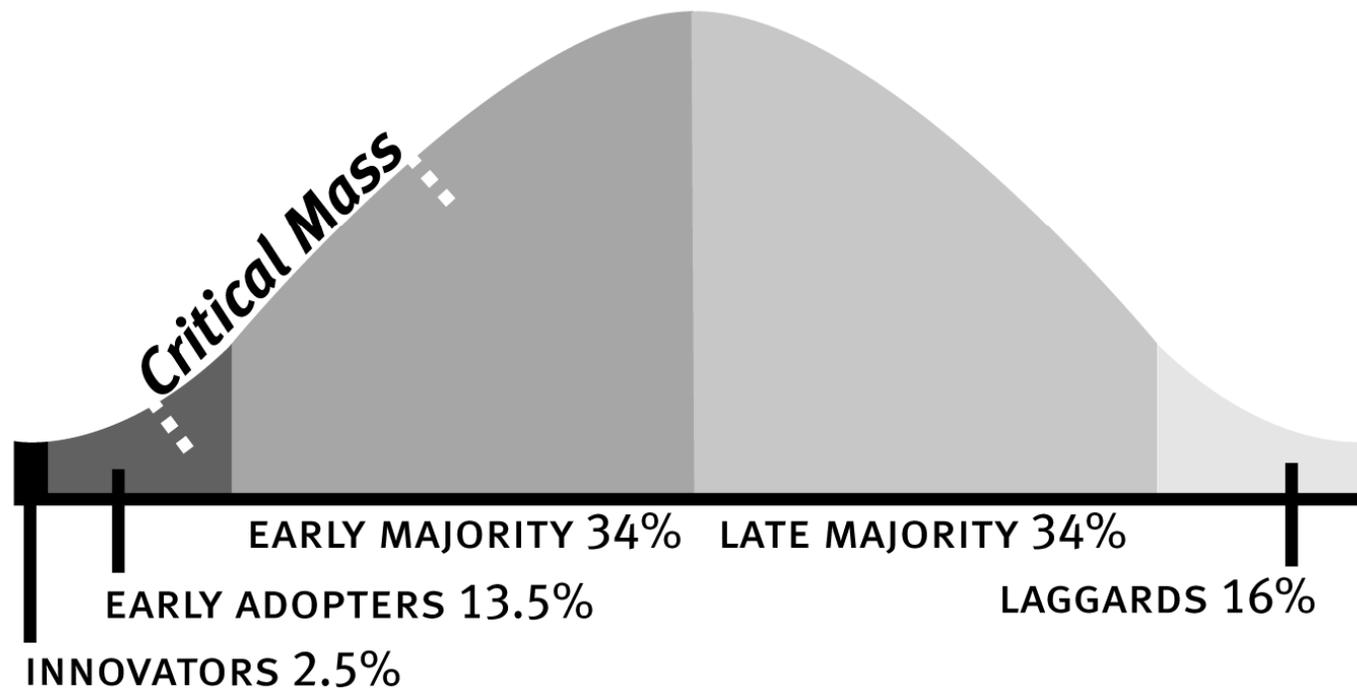
Stages of Adoption



Rate of Adoption of an Innovation Over Time

Figure 3.2

Source: Adopter Categorization on the Basis of Innovativeness
Adapted from: Rogers, 1995, pg. 262





The adoption of an innovation follows a **predictable pattern**:



It starts with a **small group**, even a **single person** who has an idea that is new to the system.

It spreads *slowly* at first through the work of change agents who **actively** promote it.



As more change agents and transformers adopt the innovation and *communicate* it to others, more early adopters join the process until the idea reaches critical mass and “takes-off.”





Cultural Change Game



THE ISIS AGREEMENT

How Sustainability
Can Improve
Organizational
Performance and
Transform the World

Alan AtKisson





Scenarios – Amoeba Game Round 1



- Role play activity centered around sustainable practices
- Each person will be assigned a role
- Read your card and play the role as authentically as possible

- Two scenarios:
 - Green Housekeeping (GH)
 - Energy efficiency in data centers (DC)



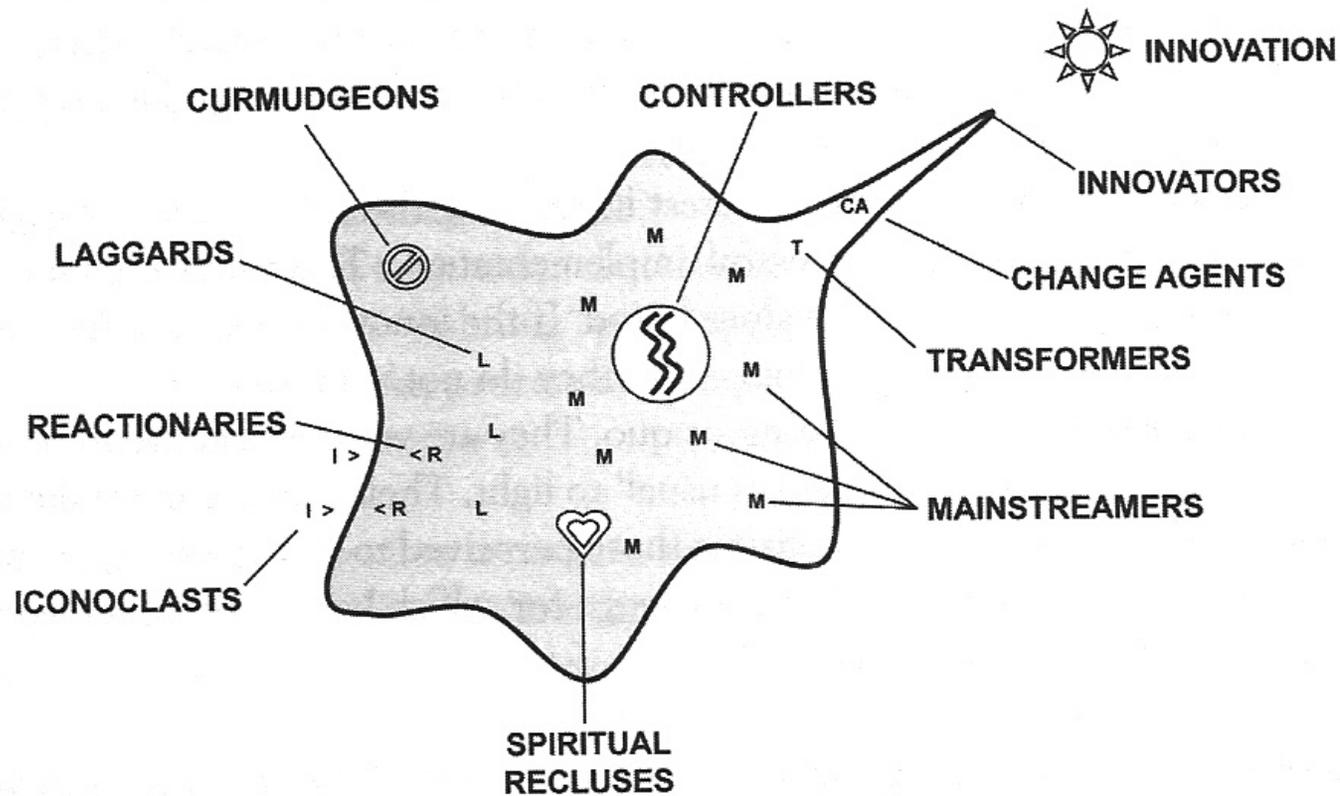
Feedback



- How much progress did you make?
- What challenges did you encounter?
- Have you encountered a situation similar to this in real life?



Who was playing?

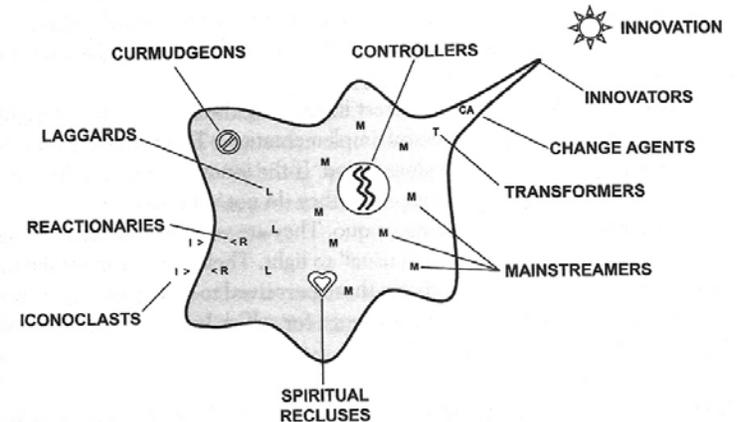


The ISIS Agreement: How Sustainability Can Improve Organizational Performance and Transform the World (Figure 8.5, page 181) By Alan AtKisson (2008, ISBN: 978-1-84407-415-0)



What can you do?

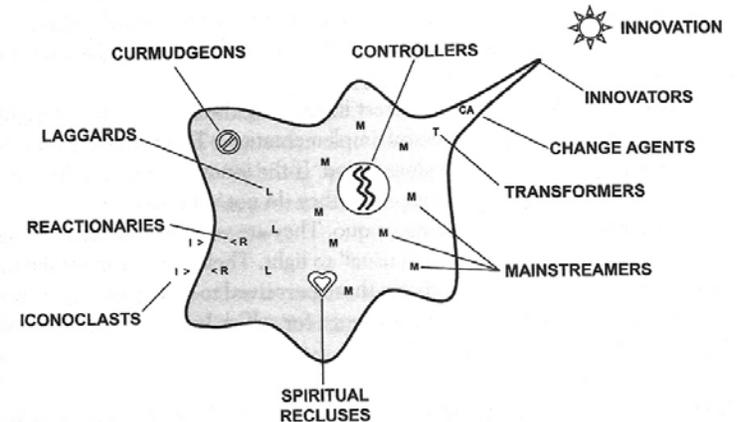
- Innovator
 - Express respect and appreciation
 - Learn important parts of their ideas
- Change agent
 - Use to produce a brochure, report or website
 - Test ideas and collaboration opportunities
- Transformer
 - Busy, but interested, so need the elevator speech
 - Listen carefully to their priorities
- Mainstreamer
 - Approach after Transformer buy-in





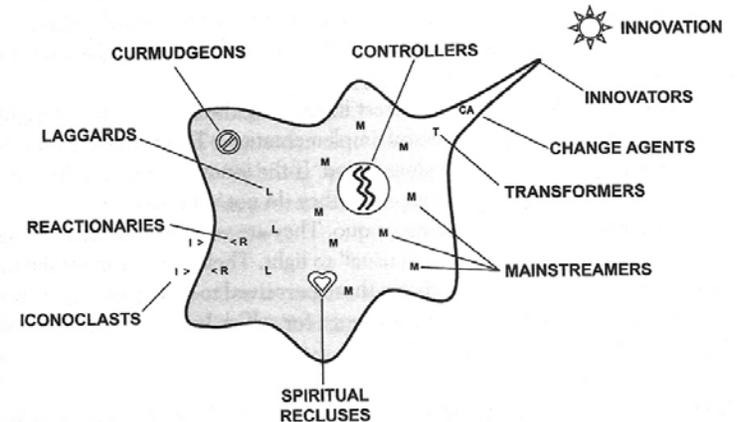
What can you do?

- Laggard
 - Avoid and keep away from Reactionaries
- Reactionary
 - Avoid or engage Iconoclasts to distract them
 - Recruit as Transformers, if they must be engaged
- Iconoclast
 - Give them information to support your cause
 - Publicly keep your distance
- Spiritual Recluse
 - Use when they can support your goals





What can you do?



- Curmudgeon
 - Energy drain that are best to avoid
 - Look for opportunities rehabilitate
- Controller
 - Treat them as ‘super-transformers’
 - Have a clear action-focused message ready
 - Stress benefits of idea
 - Don’t waste time with chit chat
 - Avoid nervous laughter



Scenarios – Amoeba Game Round 2



- Role play activity centered around sustainable practices
- Each person will be assigned a role
- Read your card and play the role as authentically as possible
- Use your knowledge about potential ‘players’ to navigate scenario
- Two new scenarios:
 - Construction waste management (CWM)
 - Greenhouse Gas Emissions (GHG)



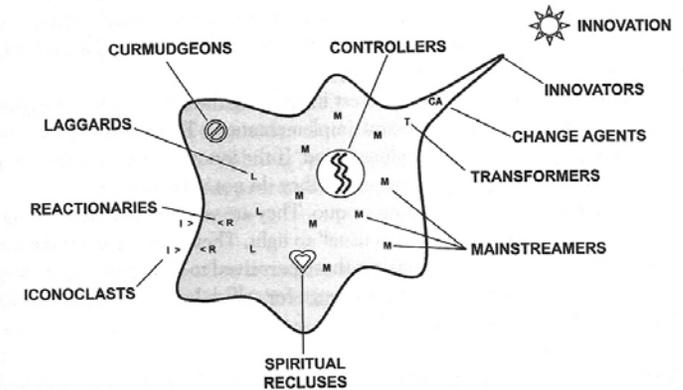
Feedback



- How much progress did you make?
- What challenges did you encounter?
- Pull out your ideas handout –
 - Who else would you engage?
 - What strategies would you take with the key players?



Remember the AMOEBA



- A = Adapt the Innovation
- M = Mobilize the Change Agents
- O = Organize the Transformers
- E = Easy does it for the Mainstreamers
- B = Build momentum at the margins
- A = Avoid Reactionaries, Laggards, and Curmudgeons

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Additional Thoughts – *My personal favorites*



- Walk the Talk
 - Without the experience of wrestling with changes yourself, it is difficult to advise others on how to make a large-scale change
- Use up-to-date information
 - Have current information when you talk with your peers
 - Encourage your peers to be technical leads and to recommend strategies
- Share information and credit
 - Create a cooperative environment
 - Nominate peers in different organizations for energy and environmental awards



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