



ASPEN, *Populus tremuloides*



Information, reference, and awareness building  
for the SoL Sustainability Consortium

# Sustainability Consortium news

Nº 05

April 2005

## SoL-related meetings

**April 26–28, 2005** Ocean Edge Resort  
Brewster, Massachusetts

SoL Sustainability Consortium Spring  
Member Meeting (*See agenda on page 7*)  
Contact: [SeedSara@aol.com](mailto:SeedSara@aol.com)

**September 13–16, 2005** Vienna

A Symphony of Innovation: SoL's 2nd Global  
Forum (*a joint presentation at event with the SoL  
European Sustainability Group*)

Any members of the SoL Sustainability  
Consortium who would like to participate in  
the planning and execution of this joint event  
please contact:

*Joe Laur – [joe.laur@seedsys.com](mailto:joe.laur@seedsys.com) or  
Sara Schley – [SeedSara@aol.com](mailto:SeedSara@aol.com)  
Website: [http://www.solonline.org/  
announcements/item?item\\_id=8836486](http://www.solonline.org/announcements/item?item_id=8836486)*

**October 10–12, 2005** Waterbury VT

SoL Sustainability Consortium Fall Member  
Meeting, hosted by Green Mountain  
Coffee Roasters  
Contact: [SeedSara@aol.com](mailto:SeedSara@aol.com)

## In Spring, a (Young) Man's Thoughts Turn to Sustainability

*Submitted by: Bob Siegel ([rainmt@rochester.rr.com](mailto:rainmt@rochester.rr.com))*

I sit here on a fresh spring morning, watching as the last snow melt drips off my neighbor's roof, thinking about the Sustainability Consortium, looking back to last fall and ahead to the upcoming meeting in April.

The Fall Forum was a treasure trove of information, inspiration and connection. Any one person could only sample a small percentage of what was there. A tremendous number of powerful ideas were shared that can be roughly lumped into the following categories (in no particular order and with apologies to those I've omitted) based on their aims:

1. Metrics that will ultimately encourage companies, through the pressures of the financial market to behave more sustainably (*Frank Dixon*)
2. Products that themselves encourage sustainability with respect to energy use and conservation (*Plug Power, Ford, BP, Shell, UTC, Amory Lovins*)
3. Social responsibility projects (*Schlumberger, Unilever*)
4. Mental models and maps to help both organizations and individuals to think in a more sustainable way (*Janine Benyus, John Ehrenfeld, Stu Hart, Peter Senge, Joe Jaworski, Leroy Little Bear, Peem Juan Arcos*)
5. Companies that manufacture and sell sustainable consumer products (*Seventh Generation*)

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## The United States Partnership for the Decade of Education for Sustainable Development: New Paradigms and New Partners for a Story that is Just Beginning

Excerpt from an article in the March 31 issue of the journal "Heartstone"

*By Steve Cochran, Interim Steward, United States Partnership for the Decade of Education for Sustainable Development ([scochran@leadershipresults.org](mailto:scochran@leadershipresults.org))*

In December 2002, the United Nations General Assembly adopted a resolution declaring a Decade of Education for Sustainable Development to begin on January 1, 2005 and extend through 2014. This initiative emerged from a series of international conferences,

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# Towards a Hydrogen Economy

*Excerpt from article appearing in H2 Nation, 4/1/2005 Submitted by: Bob Siegel (rainmt@rochester.rr.com)*

There is a hydrogen story beginning to emerge in this land, like a slowly developing Polaroid picture. Only the picture generally seems more like a scattered array of disparate elements rather than any kind of cohesive unity. Yet, two leaders from very diverse corners of the industry have recently been sounding very similar themes.

Amory Lovins is the soft-spoken, number-slinging, counterculture hero of the seventies. Lovins, now the CEO of the Rocky Mountain Institute was once the fastest slide rule in the west. Now he carries a palm-sized computer with a 2GB memory card. But he has never taken his eye off the energy ball. Only now he has had time to sharpen his pencil to laser precision, and to come up with some riveting proposals. He has come out of his Rocky Mountain lair to promote his new book, *Winning the Oil Endgame*, not so he can make a bundle on it, but so you can read it. He has generously made it available for free download at [www.oilendgame.com](http://www.oilendgame.com).

The book is broad in scope but it primarily features the R&D results of a major crash program to develop an ultra-efficient “Hypercar” that can demonstrate the principles upon which a petroleum exit strategy can be based. Lovins describes the car as “more of a computer with wheels, than a car with chips.” Lovins goes on to chart out a transitional course that shows the leading car companies already moving in this direction. Implementing the carbon-fiber technology now positions them well, he says, as first hybrid-electrics and then, later, hydrogen fuel cell cars come rolling off the assembly lines. The amazing thing about all of this is that it will actually cost less to do this than it would to maintain the existing oil infrastructure, especially considering what we are now spending to secure the supply. Following this approach, Lovins says, will get our oil imports back to 1972 levels in 20 years and save \$70 billion in the process. The key to doing this is to integrate deployment of both stationary and mobile hydrogen applications.

This sounds a bit like what Plug Power CEO Roger Saillant has been saying. Saillant, the former Ford manufacturing VP, is a hard-core realist with just enough dreamer mixed in to have given up such a well insulated position for the opportunity to make something truly important happen with fuel cells. He said that in the absence of some kind of government incentive program for hydrogen, the day that hydrogen becomes fully entrenched as a mainstream energy source is fifty years away. This differs from Lovins’ forecast but only as we would expect a manufacturing type to differ from a research type. They are, almost by definition, looking at the beginning and end points of the process, with one making his living from understanding what is possible, and the other by making what is possible actually happen.

Both of these men were present at the Society for Organizational Learning Sustainability Forum in Dearborn, Michigan last October. Listening to them speak certainly makes the hydrogen economy seem within reach, provided that people are willing to change, which, of course, is never easy. According to Ausubel of the Rockefeller Institute, our economy has been on a path towards “decarbonization” since its inception. Starting with wood and then coal, then oil and then natural gas, each of these hydrocarbon fuels has, in fact contained decreasing carbon content with a higher and higher fraction of hydrogen. So it stands to reason that using pure hydrogen would be the next logical step. Hydrogen can be derived from a variety of sources today including solar and wind. According to Lovins, Dakota’s wind power alone could make enough H<sub>2</sub> for all US vehicles provided they were all as efficient as Hypercars. *For a copy of the full article, pick up a copy of H2 Nation or contact Bob Siegel directly.*

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## Bio-mimicry Interview, Japan for Sustainability Newsletter

*Excerpt taken from: “Japan for Sustainability Newsletter,” January 31, 2005. Submitted by: Jacquelyn Ottman (jottman@greenmarketing.com)*

This month, we ask a naturalist and environmental education expert, Yasushi Umezaki, on how to learn from Nature in the course of daily life, as this is one way to find hints for imagining such technologies. Through his education programs and newsletters, Umezaki has been sharing “Nature’s designs” which he discovers in his own everyday life.

**Q.** How have you been putting into practice the concept of “learning from Nature”?

**A.** Since high school I had a vague inclination towards working in education through carrying out activities in Nature. To study how Nature works, I chose Forest Science as my major in college. Then I encountered “environmental education.” Strongly sensing that this was my calling, I started working in the field as a volunteer and found work after graduation.

Working mainly as a ranger at interpretative centers and taking part in surveys, I became a planner at environmental education facilities. Then I moved to the Whole Earth Nature School, one of Japan's major nature schools, and worked as a coordinator at the Lake Tanuki Nature School, a facility of the Ministry of Environment. One of my major roles there was that of a "nature interpreter," someone who "interprets" the languages of nature and communicates its messages to people using human language.

In 2003, I launched my own nature school, "Kaze to Tsuchi no Shizengakkou" (Wind and Soil Nature School), which aims to promote sustainable lifestyles. There I provide learning programs, human resource development, and communication services. So to sum up, my lifework is to learn how to live with Nature by learning from Nature, and to share this learning with others.

20 years ago, there were virtually no nature schools in Japan, but by the 1990's, their number grew rapidly to about 1,500, according to a 2002 survey by the Ministry of the Environment. Founded in 1982, the Whole Earth Nature School was one of the pioneers in the field and now about 60,000 people participate in its programs and courses annually. <http://www.wens.gr.jp/english/indexe.htm>

**Q.** I understand that you share the "Nature's designs" that you find around you through a newsletter?

**A.** Yes, our newsletter *Catalogue for a Natural Lifestyle* features a collection of seasonal information by writers working in Nature. Its key concepts are organic simplicity and style. My column is "Ume's Gallery of the Seasons," where I look at nature's designs. Nature is filled with a variety of designs. For example, if you look at how a river flows and the shape of a tree branch or a blood vessel, you will notice similarities in their designs.

So, can we find commonalities in nature's designs and make use of them in designing a lifestyle in harmony with Nature? With this question in mind I provide seasonal photographs taken of Nature that illustrate the lessons I learn from Nature. Although this does not mean that we can instantly come up with specific technologies or products that apply nature's colors and shapes, someone may at least get a hint from my column.

**Q.** What kind of specific designs have you shared so far?

**A.** In July, for example, I shared what I learned about "webs," which I found while mowing in my garden. The leaves of plants have a variety of shapes, but if you look closer you can see a web in every leaf – it veins. A central vein runs through the middle of the leaf and lateral veins branch out from it. Nutrients produced in the leaf are collected through these lateral veins and carried to central vein, and then they are stored in the stem and roots (see a leaf of *Metaplexis japonica*: [http://www.geocities.jp/sustaina2004/umepic/pic/2004/07syosyo/gagaimo\\_big.jpg](http://www.geocities.jp/sustaina2004/umepic/pic/2004/07syosyo/gagaimo_big.jpg))

We can assume that the web of veins is an effective design for collecting nutrients. Now when you look more closely, the leaf looks like a landscape viewed from airplane; see a leaf of *Boehmeria nivea*: [http://www.geocities.jp/sustaina2004/umepic/pic/2004/07syosyo/karamushi\\_big.jpg](http://www.geocities.jp/sustaina2004/umepic/pic/2004/07syosyo/karamushi_big.jpg).

The pattern of veins also resembles how tributaries flow into a larger river. This kind of "web" design can also be found in dried and cracked rice paddies [http://www.geocities.jp/sustaina2004/umepic/pic/2004/07syosyo/tanbo\\_big.jpg](http://www.geocities.jp/sustaina2004/umepic/pic/2004/07syosyo/tanbo_big.jpg).

When I let water into a dried out rice paddy, it disappeared through the cracks and spread out into the whole field - nature's design distributed the water efficiently! And you can find the same web design on back of your hand. The question I ask is how many other examples like this can you find?

**Q.** That's fascinating. How can we train our eyes to observe these designs?

**A.** When I "meet" with Nature, I try to apply what is called "wide angle vision," a technique originally practiced by Native Americans. And I try to do three things – "slow down (walk slowly and you will have wider vision)," "be silent (be silent and you will receive more information)" and "bend down to take a good look." In this way I can channel myself into the rhythms of Nature. The human brain can call up all kinds of memories in an effort to solve problems, so we may also be able to make use of lessons learnt from Nature in our lives and work. Please let me know what kind of designs you find in Nature!

*(Interviewer: Kazunori Kobayashi)*

## A SoL Sustainability Consortium Business proposition.

*Submitted by: Joe Laur*

Randy Brown of Plug Power came up with a terrific idea on a Finance Team call with Gary Mayo and me last Monday. During the Business Innovation for Sustainability Forum meeting in Dearborn last October, when he looked around the room, and realized the commitment and brainpower and experience that was represented in our community, he thought that any enterprise that had this set of players could probably attract the investment bankers and venture capital it needed for any worthwhile enterprise. He asked himself this: Why not start a “sustainable” or “restorative” business with the people, passion, and power of our learning community behind it?

As the three of us talked, we realized that such an enterprise could do a several things. First, it could serve as a live learning laboratory for the application of systems thinking tools, learning disciplines, and sustainability principles that we espouse and practice. Second, with the business experience and acumen we have within our community, we could likely make the enterprise profitable. Third, all profits could be used to fund the work of the consortium, or better, fund an endowment that would be available to fund the work on a long term basis.

There’s no guarantee of success, and probably many obstacles to consider and resolve. But the idea is very intriguing, and could help us in our goal relying less on a fee for membership model to keep our work going. I’m hoping there are those of you out there who think it’s worth a look.

Are you up for having a conversation around this, now via email and teleconference, and face to face when we meet in April on Cape Cod? I have far more questions than answers right now, and some of them are: What would we produce to sell at a profit? A service? A commodity? A product? Is there some thing we could do that would serve the needs of most if not all our members? Could our member companies become our first customers? Investors? Might we partner with other groups like ours to build this?

If you are interested in pursuing this idea, please give me a call at 978-544-0001 or email me at [joe.laur@seedsys.com](mailto:joe.laur@seedsys.com). Our first steps would be to see who is interested, and begin talking, with a mind to taking effective action.

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## Recent Publications and Resources

### UN Millennium Ecosystem Assessment (MA) Synthesis Report

A landmark study released on March 30th reveals that approximately 60 percent of the ecosystem services that support life on Earth – such as fresh water, capture fisheries, air and water regulation, and the regulation of regional climate, natural hazards and pests – are being degraded or used unsustainably. Scientists warn that the harmful consequences of this degradation could grow significantly worse in the next 50 years. Any progress achieved in addressing the goals of poverty and hunger eradication, improved health, and environmental protection is unlikely to be sustained if most of the ecosystem services on which humanity relies continue to be degraded,” said the study, Millennium Ecosystem Assessment (MA) Synthesis Report, conducted by 1,300 experts from 95 countries. It specifically states that the ongoing degradation of ecosystem services is a road block to the Millennium Development Goals agreed to by the world leaders at the United Nations in 2000. Although evidence remains incomplete, there is enough for the experts to warn that the ongoing degradation of 15 of the 24 ecosystem services examined is increasing the likelihood of potentially abrupt changes that will seriously affect human well-being. This includes the emergence of new diseases, sudden changes in water quality, creation of “dead zones” along the coasts, the collapse of fisheries, and shifts in regional climate. Website: <http://www.millenniumassessment.org/en/index.aspx>

### Book Release: “Corporate Environmentalism and Public Policy”

*By Thomas P. Lyon and John W. Maxwell*

The most notable recent trend in environmental policy has been the emergence of voluntary approaches to the control of pollution, including both industry self-regulation and non-coercive government programs. Corporate Environmentalism and Public Policy is the first book to provide an integrated and rigorous framework for understanding this new development. The book has two main goals: first, it shows how companies can use voluntary pollution abatement as a tool to influence public policy; second, it explains how government voluntary programs work, and when they are most likely to be socially beneficial.

*Tom Lyon, Ph.D* is a Faculty Fellow of the Erb Institute at the University of Michigan and the Dow Chemical Professor of Sustainable Science, Technology and Commerce with a joint appointment between the Stephen M. Ross School of Business and School of Natural Resources & Environment. Email: [tplyon@umich.edu](mailto:tplyon@umich.edu). *John W. Maxwell* is an Associate Professor of Business Economics and Public Policy at the Kelley School of Business at Indiana University. Email: [jwmax@indiana.edu](mailto:jwmax@indiana.edu)

## In Spring, a (Young) Man's Thoughts Turn to Sustainability

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With the arrival of spring, when the planet has finally tilted back and those of us in this hemisphere finally get more than half of the sun's light each day, I find myself thinking about transitions. And I wonder about a transition within the SOL Consortium from introspection, definition, study and sharing, all of which are primarily winter activities, to more of a season of manifestation and action, a season of preparing the soil and sowing seeds.

John Ehrenfeld makes a distinction between the notion of sustainable development and true sustainability. I like to think of the former as analogous to cutting back on a bad habit or making some lifestyle concessions in terms of diet, exercise, etc., as opposed to adapting a radically new lifestyle based on what is most healthy. Probably most of what we have discussed thus far, falls into that former category. We are here because we recognize a problem and a need to change.

But how do you rebuild a ship that is out on the open sea? Because, in some sense, that's where most of us are. Our companies need to keep producing products, delivering services to our customers without interruption, to keep the enterprise running. So while modifications can be made and new projects launched that can hopefully embody more and more of the principles we espouse, it is difficult to achieve what Greg Roscoe called "radical sustainability," especially if that requires taking the hull off the ship.

We could, of course, start work on a new ship, a ship that would be constructed along the lines of our best principles and practices in every aspect of its design. Some of the newer companies in the group are, in a sense, new ships. Plug Power comes to mind as an example of a company that was conceived around a sustainable product and is trying to produce it in the most sustainable manner. Most of the companies, though, go back to a time before sustainability was considered an issue. But these older companies can still produce new ships, and some of them are doing just that. That is, in a sense, what BP and Shell are doing as they invest in renewable energy and prepare for a transition away from petroleum.

These are examples of individual companies doing commendable things that can be emulated and learned from. No doubt there are others I have failed to mention. But what else can we do together, as a group? Learning and talking and sharing stories are vital and more than reason enough to make the trip. But can we do more? Is there a transition from idea to action somewhere in our future?

Perhaps we can start something new. Randy Brown of Plug Power suggested the idea of leveraging the enormous talent and energy embodied by this group to attract venture capital. The resulting combination of resources, knowledge, idealism, spirit and vision could be the beginning of something truly remarkable. Randy, Greg Mayo and Joe Laur brainstormed this proposal on the phone. They came up with the idea of a profitable, sustainable or restorative enterprise that could serve as a learning laboratory for the principles we embody. And some of the proceeds could, of course, be funneled back to fund the work of the consortium.

These are all good things to keep in mind as we prepare for the spring meeting. The focus will be on such things as community commerce, emerging projects and goal setting. We should ask ourselves, in the gentle sunshine of this newly minted spring, what else can we do to accelerate the cause of sustainability on this most precious, life-giving planet that seems to be calling out for our help?

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## The United States Partnership for the Decade of Education...

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declarations, and initiatives beginning with the 1992 Rio Earth Summit and culminating in the 2002 Johannesburg World Summit on Sustainable Development.

To clarify mission and objectives, in its "Framework for a Draft International Implementation Scheme" for the Decade, UNESCO defines sustainable development as, "...a dynamic and evolving concept with many dimensions and interpretations which reflect locally relevant and culturally appropriate visions for a world in which development meets the needs of the present without compromising the ability of future generations to meet their own needs."

The "Framework" describes four major objectives for the Decade: 1) to promote and improve high quality, relevant basic education; 2) to reorient existing education policies and programs to address social, environmental and economic knowledge; 3) to develop public understanding and awareness of the principles of sustainable development and, 4) to develop specialized training programs to ensure that all sectors of society have the skills necessary to perform their work in a sustainable manner. These objectives will be achieved through "advocacy, communication, and networking directed at facilitating all educators to include sustainable development concerns and goals in their own programs."

Though the facts are rather dry, the reality of what is occurring in the United States in response to the Decade is very exciting and offers great promise, and opportunity. Most importantly, is the movement to act is growing organically – the

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## The United States Partnership for the Decade of Education...

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result of personal and conscious leadership choices by individuals across American society.

The “United States Partnership for the Decade of Education for Sustainable Development” (the Partnership) was conceived at a November 2003 “Open Space” gathering in Washington DC of almost 100 cross-sector sustainable education advocates. It was born of necessity, in the absence of a formal and official US federal government response to the Decade. While some countries have established Decade-specific agencies to implement national ESD plans, and others are assembling inter-agency collaborations, there is little likelihood of such government-inspired action in the US.

Especially inspiring, and in some cases surprising, was the diversity of organizations and individuals eager to engage. Of course there were the anticipated participants - advocates for K-12 and higher education, science and research organizations, and conservation and environmental NGO's. In addition, however, there was an expanded list which included local, state, and federal government agencies, private industry/manufacturing, the faith and arts communities, living institutions, youth-advocacy organizations, member and trade associations, environmentally-friendly cleaning services, fruit-producers, media, law firms, and –use your imagination – the list goes on.

To channel the energy and enthusiasm of the original participants in the Open Space gathering, a strategic planning retreat for the coalescing Partnership was held on the campus of Gettysburg College in April 2004. This group formulated a vision - to seek “sustainable development integrated in education and learning (of all kinds) in the United States;” and, a mission - to “leverage the United Nations Decade of Education for Sustainable Development in the United States.”

Reaching toward the mission of education for sustainable development, the Partnership is a community of passionate and diverse leaders and organizations that is, most importantly, growing exponentially. Its definitions of “education” and “learning” encompass everything from curriculum-based, classroom education (at the Pre-K, K-12, Secondary, Post-Secondary, and Post-Graduate level), to the many forms of “free-choice learning” in which we voluntarily seek a wider knowledge and understanding of what we find interesting or imperative. In between these are life-style decisions, product awareness, faith-based considerations, positive peer-pressure, geographic and cultural considerations, government mandates, and the expanding internationalism of our lives.

A few examples of Partnership-supported ‘communities-in-action’ in service of education for sustainable development in the United States include these:

- Living Institutions (zoos, aquariums, botanical gardens, land conservancies, etc.) – Here’s an eye-opening statistic: More people visits zoos in America in a year than attend all sporting events combined.
- Independent Schools (non-affiliated K-12, privately supported institutions of education) – Inspired by a speech given by Ray Andersen of Interface, the National Association of Independent Schools (NAIS) has embraced the objectives of the Partnership as a central tenet of the mission that supports their 1,300-plus member institutions.
- Faith Communities (local, national and international coalitions and partnerships) – Many, if not most faith ideologies address stewardship and respect of the Earth and its resources.
- Private Industry – The Partnership includes private sector membership organizations clustered in special interest alliances such as the Society for Organizational Learning’s Sustainability Consortium.
- Government – Recently, a “historic” Open Space gathering of federal employees in Washington DC brought together (for the first time) more than 70 representatives from civilian and military units across the federal government to focus on the government’s collective (and intra-agency) roles and responsibilities toward “sustainable environmental stewardship.”

*For more information, and to register as a partner, go to [www.uspartnership.org](http://www.uspartnership.org) To contact the Author, [scochran@leadershipresults.org](mailto:scochran@leadershipresults.org)*

## Society for Organizational Learning (SoL) Sustainability Consortium invites you to historic Cape Cod to attend the Spring 2005 SoL Sustainability Consortium Meeting.

**WHEN:** Tuesday, April 26th through Thursday, April 28th.

**WHERE:** Ocean Edge Resort, Brewster, Massachusetts

**PRE-MEETING OPPORTUNITIES:** Tuesday, April 26th, 10 AM- 5 PM (*Times subject to change*)

### 10:00 AM- 1:00 PM

- Women Leading Sustainability Workgroup
- Restorative Business Initiative
- Products and Markets Workgroup

### 1:00 – 5:00 PM

- Value Chain/Materials Pooling Projects
- Design:Green Eco-Design Learning Workshop
- Social Dimensions Workgroup

## Sustainability Consortium Conference Agenda:

### TUESDAY, APRIL 26 - EVENING

**6:30 PM** Registration, Reception, Dinner

- Interactive learning activity
- The State of the Consortium: Stories and Updates

### WEDNESDAY, APRIL 27 - AM

**8:00 AM** Welcome and Introductions, Community Norms and Roles

**8:30** Check-in

**9:00** Social Dimensions of Sustainability: How are Community, Commerce and Nature interwoven?

- Social Dimensions Conceptual Framework, (*David Berdish, Ford Motor Company*)
- Urbanization of China, (*Duncan Eggar, BP*)
- Unilever in India, (*Brigitte Tantarwy-Monsou, Unilever*)
- SEED and the retrospective Business Case, (*Simone Amber, SEED Schlumberger*)

**1:00 PM** Lunch

**2:00** Sustainable Mobility and Social Dimensions: A Systems Diagram, (*Dave Berdish, Ford Motor Company, Don Seville, Sustainability Institute*)

Regenerative Business Dialogue, (*Gregor Barnum, 7th Generation, Mike Dupee, Green Mountain Coffee Roasters, Bill Stillinger, PV2*)

**3:30** Break

**3:45** Setting our Sights: Sustainability Goal Setting and Benchmarking Process *Bob Tierney, UTC*

**4:30** Small group working time

**5:30** Break, rest, and exercise.

**6:30** Reception, dinner, (*Stuart Hart: The Bottom of the Pyramid and Capitalism at the Crossroads: Remarks and group conversation*)

**9:30** Close for evening

### THURSDAY, APRIL 28 - AM

**8:00 AM** Check-in

**9:00** Emerging projects, needs and offers – An opportunity to float new projects or specify company needs going forward, Goal: articulate one or two tangible projects focused on integration of social dimensions into sustainability.

**10:00** Focused small group working time

**NOON** Lunch (*Consortium Steering Group meets*)

**1:00 PM** Focused small group working time

**3:00** Check out and close

