



**SUSTAINABLE SYSTEMS COMMITTEE  
FEBRUARY 23, 2010**

**Committee Members in attendance – alphabetically:**

**Jim Blucher  
Michael Carlson  
Arthur Guilford  
Bob Hueter  
Kelly Kirschner  
Tammy Kovar**

**Kumar Mahadevan  
Anne Merrill  
Matt Ross  
David Sessions  
Shannon Staub**

**Committee Members not in attendance – alphabetically:**

**Alan Barberio  
Don Borden  
Nancy Detert  
Don Fell  
CJ Fishman  
Jim Guida**

**Bill Johnson  
Julie Morris  
Ron Reagan  
Don Ross  
Kelly Westover**

**Staff:**

**Kathy Baylis  
Cindy Bean, Facilitator  
Michelle Christopher  
Mireya Eavey**

**Lee Kotwicki  
Joan McGill  
Huseyin Zeybek**

## 1. Call to Order

Joan McGill, Dr Arthur Guilford, Dr. Kumar Mahadevan welcomed participants. Joan announced that Mireya Eavey will be taking over for Joan in terms of EDC responsibilities for the Sustainable Systems platform. Dr. Mahadevan thanked everyone for coming and gave special thanks to Mark Becker for providing the use of the room for today's meeting. All participants introduced themselves. Cindy Bean introduced methods for guiding the conversation.

## 2) Re-commit to Strategic Goals

Discussion

Opening statements made by Cindy Bean.

- Overall goal of the initiatives from strategic planning process is to create 15,000 jobs in five years.
- The focus of this meeting is to come up with 2-3 BIG IDEAS in support of the county and economic development and specifically strategic plan goals (especially, 15,000 jobs).  
The BIG IDEAS agreed upon by the group need to be achievable; the group must have a vision of what the actualization their BIG IDEAS will be in five years.
- Commitments from participants in this platform leadership group are needed for next steps toward achieving to be generated from this meeting.

Goals E1 thru E4 from the Strategic Plan document (from section "Goal E" Expand business opportunities in applied environmental and sustainable systems) were presented to the group for their consideration. The group was asked to recommit to these goals as the foundation of the group's purpose.

The original strategic plan goals related to Sustainable Systems were presented to the meeting participants:

E1. Support Development and Commercialization of sustainable aquaculture technologies and expansion of regional aquaculture industry.

E2. Expand marine sciences educational programs to draw student and visitors from outside the region.

E3. Assist local businesses with environmental and sustainable products/services to maximize their market share within Florida and expand product/service offerings.

E4. Develop a consortium model that promotes Sarasota County as a location for applied and integrated sustainable concepts.

## Discussion:

As the discussion developed, goals E1 and E2 were discussed jointly. Both goals were endorsed in principle by the group (and later re-worded).

It was noted that Mote alone isn't enough to develop an industry, however, this industry is worthy of development in terms of creating jobs with attractive salaries (above national mean salary). Discussion focused on R&D and fish farming, working with big ranch farmers to alternate crops using aquaculture (ranches and farms being assets in the county and region). Further discussion centered on work that would stem from research in marine science and related education. Other mentions included the importance of partnering with programs and businesses to access state and federal funding and that there is a need to partner with local universities to keep talent in Sarasota. The notion of linking aquaculture to agriculture was developed with the idea that there is a use of the outflow of aquaculture to grow plants. It was noted that E-1& E-2 are both heavily related to MOTE as a lead institution (asset) for this platform, and is necessary to raise awareness as to the amount and depth of research conducted at Mote for it to be seen as a competitive advantage for sustainability locally. There was discussion as to technology and knowledge from developing clean-tech fish farming (not pond aquaculture). Also, it was noted that services in other areas support the effort would develop, including manufacturing with the commercialization of new technologies developed here. The industry of clean-tech fish farming R&D would employ Ph.D. scientists who would in turn draw masters and bachelor qualified employees. Construction, sales/marketing, financial services, and legal jobs would all be positively impacted as well. The importance of developing education to support the areas development as a global leader in this field was emphasized.

There was a question as to whether land costs influence our area adversely in terms of whether Sarasota is the best place to set up aquaculture? Kathy Baylis asked whether the focus is on R&D or on fish farming or both. Commissioner Kirschner suggest that the group would be best served to think regionally for access to less expensive land for aquaculture and that there are opportunities to redevelop areas under utilized now in areas surrounding Sarasota County, and that there is land near Port Manatee which could be strategically important. A 'devil's advocate' question was posed: Is there a viable business? Experts from Mote noted that it takes start up capital and it takes 6 years to be a profitable business generating ROI, based on their experience but that could improve as this industry develops. After some discussion it seemed that the group agreed that to be a leader in the technology and development of clean-tech aquaculture as well as developing the industry itself here would both be viable options to pursue. It would be important, it was noted, for local government to help with regulations and tax abatement and other incentives. The question was raised as to whether government could be an asset in this equation. Commissioner Staub

mentioned that local government cannot help with funding directly. Staub also suggested a community investment pool with shareholders.

Goals E-3 and E4 were discussed together. The group consensus was that Goal E3 was very broad. The comment was made that pursuing Goal E3 is necessary to stay competitive but is not a novel idea that will give Sarasota a competitive advantage. The question was raised whether the EDC could help by cataloguing the green/sustainable systems businesses in the Sarasota area as some remembered this being a budgeted item discussed previously. Participants agreed that Goal E4 was a subset of E-3 or that E-3 was a subset of E-4 – somehow the two could be combined. The example of “82 Degrees Tech” as a successful consortium model that fostered growth of tech-industry in Sarasota was noted as a possible role model.

The discussion concluded with re-wording the Strategic Plan goals into THREE specific goals that this group agreed to pursue as the guiding goals for the Sustainable Systems platform as follows:

(New) E1. Create an aquaculture industry. (Note: it was understood that this is not ‘pond aquaculture’ but rather clean-tech/sustainable systems aquaculture)

(New) E2. Create a Marine science RD/ Educational research focus.

(New) E3. Assist local businesses and create new businesses through a consortium model.

### **3. Brainstorm for Big Ideas/Commit to Big Ideas**

Participants worked in small groups to create a vision of ‘what it would look like in 5 years’ if we are wildly successful with our pursuit of the agreed upon new goals (New E1-E3 above).

Discussion

(New) E1- Create an aquaculture industry.

- Use existing 200 acre parcel owned by Mote on Fruitville Road (east county) to make a visitor center where people learn about sustainable systems and aquaculture
- Build on Fruitville corridor sustainable zone.
- Help inform public about Mote in new way and partner w/ USF Sarasota-Manatee. Make the aquaculture center a destination spot
- Market sustainable sciences and USF Sarasota programs supporting this industry
- Be an ‘incubator’ for new fish farming ideas and expand fish farm that exists there now

- Mesh EDC with visitors bureau and at the I75 exchange create USF east campus to create a HUB with small businesses and MOTE as an anchor
- Suggestion – fish farmed at the facility can also be sold in the visitor center
- Don't need a lot more fish producing systems there at that location (just demonstration of leading-edge technology there) but support growth of regional fish farming industry on ranches, farms, other available surrounding land
- Create Eco/Aqua/Agri effort: have green energy, aquaculture and agriculture integrated
- Private investors are skeptical; however, Mote is not your typical fish farm (not pond aquaculture). It is a very sophisticated closed cycle system. Mote has business plans available for \$10,000 for interested parties and for \$100,000 an interested party can receive the drawings and plans to build an aquaculture park for starting a business clean-tech aquaculture from Mote.
- Dr. Mahadevan said the biggest challenge is energy costs. They currently spend approximately \$150,000 per year at the aquaculture park. There is a need for sustainable energy
- Commissioner Kirschner asked about the marine science program at USF St. Pete. Is it possible to bring the necessary closer to Mote? Dr. Guilford of USF Sarasota-Manatee replied, yes. The (USF S-M) will have their separate accreditation in June 2011 and at that time can offer whatever courses they feel are in most demand, including creating new programs. St. Pete concentrates mostly on marine science in the ocean and not much aquaculture (as he described it, they are more 'ocean driven'). Sarasota could become more sustainable/aquaculture driven with marine science and sustainability higher education programs. Also, SCTI should be included in future discussions.
- Local government and Mote should come together with USF Research program to broaden the area
- Dr. Mahadevan noted that USF in Tampa has one of the best engineering schools and that provides talent needed for aquaculture systems.

Summary: Build an Aquaculture campus: Mote/USF become leaders in aquaculture. Link aquaculture efforts to sustainable systems in a broader sense including agriculture, horticulture, packaging of fish products produced, construction and operation of the plant, engineering modules for sustainable aquaculture, education and training, and public outreach. The Mote site would be a campus with an R&D complex as the anchor. The campus would have applications for creating business opportunities, i.e. businesses incubators. In the facilities, and use sustainable/renewable energy, be a place for demonstration of new sustainability ideas around which businesses can be created. Build on idea of Fruitville Road ECO CORRIDOR.

(New) E2 -Create a Marine science RD/ Educational research focus.

- Make a demonstration project 'energy reduction system'.
- Utilize Fruitville sustainability corridor
- Create a large enough system that uses self sustainable energy at the Mote site as prototype for future commercialized sustainable energy efforts
- Be quality driven to create a "brand" that will help guarantee the future of the program, continue to be ahead of competition
- Build surrounding communities that are state of the art architectural and sustainability
- Create eco 'triangle' R&D to market (like 'research triangle')
- R&D – possible to bring new species every couple years; produce new fish to market using latest clean-tech aquaculture?
- Produce energy with algae

Summary: Mote and USF together create a college of eco-agri-aqua-culture and marine science linked to aquaculture. Use renewable sources to fuel the facilities. Create a marine science institute locally. Combine Agri-aqua and green technology – discover how they are integrated.

(New) E3 Assist local businesses and create new businesses through a consortium model

- Create a Sustainability Resource Center at the Fruitville Corridor
- Green businesses catalogued, export opportunities brought to local businesses
- Education/outreach aspect where people can learn the benefits of green design, eco/aquaculture
- Simplify to "mind bytes" allowing people to quickly understand the benefits of these ideas
- Eco institute- think tank, inventory of eco businesses mentoring and venture capital, angels – include ANYTHING SUSTAINABILITY
- Expand to economic and social sustainability
- Energy should be a focus
- Support consortium model
- Public education model
- Maybe add design component
- Focus on educational aspects, and create jobs in this area so people won't have to leave the area to find jobs. Is there any opportunity for SCTI, MTI, and other schools (other than higher ed) that would be focused on eco/marine culture?
- Consider on-line as well as physical presence

Summary: Create a Sustainability Resource Center (ideally link this center to the creations of E1 and E2 above), that includes commercial and educational/outreach activity. Include all Sarasota area 'Green businesses' by creating a catalogue so people can find green businesses through this center, find and create expansion and export opportunities for local businesses. Use a broad definition of sustainable systems and expand to economic and social sustainability.

Summary of commitment to 'vision' for the big three ideas – overall, the four small working groups' visions presented converged to describe one vision encompassing all three of the newly defined platform goals.

Summary, overall, of the group commitment:

#### CREATE:

- An aquaculture/sustainable systems focused geographical area and 'campus', ideally anchored at the Fruitville Corridor (estimated to employ, directly at the center 500+ people; scientists in R&D, engineers in aquaculture, etc.)
- Expand to other land nearby and spawn smaller supporting industries linked to the development and commercialization of clean-tech aquaculture such as manufacturing.
- The 'campus' should include public education and outreach,
- The campus should include higher education (perhaps a "USF east campus", the marine science program could be housed in this campus, employing professors and staff)
- Included in this complex or 'campus' or surrounding network of businesses should be existing sustainable systems businesses, new small business start up and related support businesses, etc.
- The facilities should showcase and demonstrate sustainable energy and energy, green building, green living (e.g. landscaping, energy, water, etc.)
- As well as employing people and creating and leading the clean-tech aquaculture industry, the effort will lead globally in R&D & higher education in this field and be a business hub (create consortium member business opportunities)
- This campus can be a showcase open to the public which helps to inform the public and 'brand' Sarasota as a thought leader in aquaculture, a producer of clean-tech aquaculture products (for food such as caviar now produced at Mote facilities, and for re-vitalizing fish populations)
- The commercialization and expansion of clean-tech aquaculture (with design and manufacture of new, leading edge clean-tech aquaculture production systems) is expected to result from these efforts, as well as successful branding of Sarasota as a leader in embracing sustainable options in energy, water, and other sustainable systems areas

Note – a schematic/diagram of what the facilities/campus might look like in terms of use of space and activity centers at the facilities was proposed by Bob Hueter with his small group participants, we were unable to capture that pictorial for these notes.

### **Action Plans/Participant Statements of Commitment to Next Steps**

The group agreed the next meeting needs to have presentations by ‘experts’ to tell the group what they need to know to make this project work. Toward that goal, the commitments by participants recorded at the meeting include:

**Arthur Guilford:** will provide information on what USF is able to do to support the vision regarding higher education

**Arthur Guilford and Kumar Mahadevan:** look into demonstration project for renewable energy

**Bob Hueter:** will contact Jim Turner – Attorney (owner of substantial amount of land on Fruitville) for agriculture

**Kumar Mahadevan:** will contact someone from Swift Mud

**Kumar Mahadevan:** will look into funding, connections, permitting, land, regulatory barriers

**Kumar Mahadevan:** will share outline of Mote plans that support these ideas

**Kumar Mahadevan:** will contact Theresa Connor – Executive Director of Environmental Services – Sarasota County, and Albert Joerger – Founder and President – Sarasota Conservation Foundation and Board member of Swift Mud.

**Joan McGill:** will contact Don Borden for international insight, engineering insight, and venture capital funding insight

**Anne Merrill:** will find out if the EDC has funding to create an inventory/catalog of existing green/sustainable businesses.

**Matt Ross:** will do research on biomass, algae and costs associated with it.

**Shannon Staub:** will contact renewable energy expert, probably looking to the county (she will contact Susan Scott, Deputy County Administrator and Lee Hayes Byron – Sustainability Manager – Sarasota County) and Raymond Kaiser from Florida House/Sarasota Energy.

**Shannon Staub:** Contact Rae Dowling at FPL about Energy

## Closing comments

There was some discussion about how to get all of the groups or 'platforms' working toward strategic plan initiatives to share information (to reach beyond the sustainable systems group and exchange ideas, for example, with design platform and aging platform groups). Bob Hueter suggested at a minimum to send out invites to all other platforms to get cross collaboration and that previous structures operated with the leaders of various interests meeting to share ideas across groups.

There was some discussion of what the timing of the next meeting should be. Commissioner Kirschner stated that there is to be a charrette for the Fruitville corridor land use planning during the week of April 12-19 and suggested that the sustainable systems platform leadership group might wish to meet prior to the charrette taking place.

Everyone was notified that Lee Kotwicki would send a follow up survey to this meeting and that in the survey the date and time options for the next meeting would be addressed.

Joan McGill, Dr. Arthur Guilford, Dr. Kumar Mahadevan and Cindy Bean all thanked participants and especially to Lee Kotwicki for organizing the details for this meeting. The group thanked Cindy Bean for facilitating. Again, special thanks were expressed for the use of the room for today's meeting, organized by Mark Becker of the Hyatt Regency Sarasota. The meeting adjourned at 12 noon.

Meeting Report submitted March 1<sup>st</sup> 2010, by Facilitator, Cindy Bean.