

Attendees

Bill Bean, Cameron Blanford, John Brubaker, Lee Beach, Alex Daniel, Jay Diedzic, Doug Dwoyer, David Forrest, Ben Francisco, Carl Friedrichs, Jim Golden, Virginia Jones, Steve Kaattari, Jane Lopez, Chris Machut, Dennis Manos, Mike McBeth, Anne Marshall, Paul Panetta, Tucker Pierce, John van Rosendale, Jim Schultz, Carter Scott, Al Smith, Steve Stanford, Greg Stringfield, Mike Unger, Eric Weisel, John Wells.

Purpose

The purpose of this meeting was to cover:

- VIMS Updates (John Wells)
- Netarus Overview (Chris Machnut, CEO)
- USDA Grant Overview (Steve Kaattari)
- Werner Anderson Overview and Current Projects (Eric Weisel)
- Financial Presentation at VIMS; EVMS PFI Proposal; and SS&TF Seminar Overviews (Bill Bean)
- Tellus Applied Sciences - The Norfolk Nauticus Buoy Overview and CBIBS and CBOS Updates (Tucker Pierce)
- High Performance Computing at W&M Overview (John van Rosendale)

Note: Presentations from Chris Machut, Steve Kaattari, Eric Weisel, Tucker Pierce, and John van Rosendale have been posted at:

<https://web.wm.edu/economicdevelopment/VIMSIndustryPartnership.php>

Agenda

John Wells chaired the meeting and Jim Golden facilitated the agenda.

ANNOUNCEMENTS:

- John introduced **Cameron Blanford**, a VIMS Council representative, who will join the Partnership meetings to help explore opportunities for VIMS to expand industry partnership collaboration.
- The next VIMS-Industry meeting will be on Friday, February 13, 10-noon, in the Director's Conference Room.

PRESENTATIONS:

John Wells. (VIMS Updates)

Budget. John announced that the Governor will release the **state budget** next week so that VIMS will have a final confirmed figure for the state's funding cut.

Research Needs Workshop. Last week, about 100 people attended an exploratory workshop to discuss research needs related to potential **Virginia offshore oil and gas drilling** and the leases involved. John mentioned that the participants will publish a **findings report** and that VIMS, as advisor to the State, will almost certainly be involved in the environmental impact analysis.

NOAA North Atlantic Regional Cooperative Institute Proposal. John confirmed that VIMS is preparing to respond to this proposal that covers **ecosystem monitoring** from Virginia to Canada. Four other university partners are collaborating with VIMS on one submission (Maryland, New Hampshire, Rhode Island, and NY Stony Brook). Funding would be **\$7 million over five years**, with potential renewal for another five years.

VIMS Strategic Plan 2009–2012. John brought copies of the recently published VIMS strategic plan for everyone to review.

PRESENTATIONS:

Chris Machut, Netarus CEO, Virginia Beach. (Netarus Overview)

Chris presented an introduction of his company founded in 2002. Netarus specializes in tech consulting and systems integration. Their major platform for data acquisition and management of disparate sensors is **SCInterface**. As a Service Oriented Architecture (SOA), SCInterface works with multiple sensor protocols to retrieve sensor data and distribute this data securely to any interface – Web, cell phone, or voice. For **additional information**: <http://sensors.scinterface.com>.

Steve Kaattari (USDA Grant Update)

Steve discussed a recent grant from USDA to **study and develop a new form of vaccine** that can be used to produce long-term protection against viral antigens. The grant is **\$375,000 for two years** and is another opportunity for VIMS to partner with other US institutes on this important research. **Aquaculture is one of the fastest growing industries** in the world, particularly catfish, salmon and trout production. Massive aquaculture, however, also means the possibility of massive infection. The “chimeric” vaccine Steve is working on may be able to combine the best immediate immunity attributes of LPS bacterial vaccines (the most financially successful and robust form) with the delayed immunity attributes of G protein vaccines. If successful, the new vaccine structure could have significant commercial potential.

Eric Weisel (Werner Anderson Projects Update)

Werner Anderson is **focused on modeling and simulation** tools. The company, with locations in Gloucester Point and Suffolk, has a staff with excellent operations research skills. Their business model is to find the “best fit” simulation tools for decision makers. Eric illustrated the potential for Werner Anderson to license research models and incorporate them into simulations for customers. He described how the company licensed a “crowd control behavior” model from ODU and is employing it in a simulation for JFCOM to evaluate the use of non-lethal weapons. The key idea is to apply existing research models in larger simulations designed for specific customer needs. **For example**, VIMS numerical storm surge models might be licensed and incorporated in simulations for different customers. Eric is interested in working with VIMS to identify models that might have broader applications in simulations.

Bill Bean (Financial Presentation/ SS&TF Seminar, EVMS PFI Proposal, and Luna Innovations Updates)

Financial Presentation/SS&TF Seminar. Bill continued the “linking opportunities” discussion by announcing that a **financial presentation** is scheduled at VIMS **mid-February 2009**. The purpose is to help link VIMS researchers to businesses through SBIR, STTR and other opportunities for collaboration. Participants will include **NASA representatives** and experts on venture capital financing. Companies will also be invited to attend.

On **17 February 2009 the SS&TF seminar** will feature the biosciences cluster. Bill is seeking VIMS participants to make presentations at the seminar.

EVMS PFI Proposal. **Doug Dwoyer** gave an update on VIMS response to the EVMS PFI proposal due the **end of December 2008**. This Partnership Innovation Grant amount from the NSF is **\$600,000 over three years**. This grant will attempt to meet the needs companies have expressed for research access, workforce training, networking and business startup support. It will also include a research component. W&M’s Technology and Business Center will play a key role in the grant, and Bill Bean and Doug Dwoyer are also seeking VIMS participation.

Luna Innovations. With regret, Bill announced that Luna Innovations, an Industry Partnership member, has had to close its Hampton Roads office due to current economic conditions. However, **Paul Panetta** noted that he would continue to be a Luna contact and expects to continue participating with VIMS and the Partnership.

Agenda, cont.

PRESENTATIONS:

Tucker Pierce, Tellus Applied Sciences (Norfolk Nauticus Buoy, CBIBS and CBOS Updates)

Tucker explained that the Chesapeake Bay Interpretative Buoy System (CBIBS), funded by NOAA, now has a network of six buoys collecting real-time data from the top to the bottom of the Chesapeake Bay.

Working with **Verizon Wireless** and the **Nauticus Museum**, the CBIBS and CBOS sensors are transferring data to a Nauticus kiosk where the public can press a Monitor button on the kiosk to get real-time data from the Bay. In addition, the system is also archiving past Bay data for research use. In response to questions, Tucker explained how additional sensors could easily be added to the buoys.

John van Rosendale (W&M High Performance Computing Update)

John announced that a plan is underway to review W&M's needs for **evaluating its high-performance computing capabilities** and to link the results into W&M's overall Strategic Plan. W&M now has a very significant computational capacity including four teraflop systems and a 10 gigabit national lambda rail drop. A one gigabit connection to VIMS is in place. Areas for review cover computer science, physics, oceanography, and applied science. The total W&M capacity is expensive, on the order of \$500 K per year including staff. The review of infrastructure and high performance computing culture (including computer science, physics, mathematics and VIMS oceanography in particular) will be conducted in the first week of **May 2009**.

CLOSING COMMENTS:

Updates at the next meeting will include:

- **Jay Diedzic** - alternative energy.

John Wells thanked the group for their participation and the excellent discussion.

Next Meeting

Friday, February 13, 2009. VIMS Director's Conference Room, Watermen's Hall. 10:00am – Noon.
