

Attendees

Bill Bean, Lee Beach, Jennifer Dillon, Doug Dwoyer, Carl Friedrichs, Ben Francisco, Jim Golden, Alleyn Harned, Virginia Jones, Rick Lally, Jane Lopez, Doug Meredith, Susan Patterson, Anne Marshall, Dave Marsell, Scott Polk, John van Rosendale, Leonard Sledge, Gregory Stringfield, Mike Unger, Lyle Varnell, Eric Weisel, John Wells.

Purpose

The purpose of this meeting was to cover:

Presentations

VIMS strategic planning process (John Wells), the Elizabeth River and Hess Oil projects (Mike Unger), and Oceana Sensor (Rick Lally). Mike and Rick's presentations have been posted at: <https://web.wm.edu/economicdevelopment/VIMSIndustryPartnership.php>

Project Updates and Actions

Biodiesel (Mike Unger), VA Dominion Buoy (Mike Unger), Robot Venture (Bill Bean), and CAVIAR project (Susan Patterson).

General Discussion

Research Centers at VIMS (Carl Friedrichs), Werner Anderson Personnel (Eric Weisel).

Agenda

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

MEETINGS - 2008:

- **August 26** at W&M. VEDP results presentation of an SRI innovation study.
- **October 23** at VMASC. Federal Laboratory Consortium meeting all day.
- **October**, TBA. Virginia Bio lunch meeting for researchers and companies in the bioscience cluster.

ANNOUNCEMENTS:

- W&M has launched a **new Web site**. As a result, the VIMS-Industry Web site **URL** has been changed to the one listed above. The VIMS new Web site will be **launched on September 30**.

PRESENTATIONS:

John Wells. (VIMS Strategic Planning Progress)

John Wells stated that he is reviewing the final VIMS strategic plan draft. Internal discussions have been underway since last October. Portions of the plan's **vision** and **goals** most relevant to the Industry Partnership Committee include: Creating integrated research "centers" – "topic specific", such as a climate change research center; creating mutual beneficiary business partnerships with VIMS as a hub to contribute to the well-being of the Commonwealth. John felt that the VIMS strategic plan will also benefit W&M's efforts as the college begins work on its strategic plan this fall. **Doug Meredith** noted that he would be willing to help coordinate any local legislative action that might be required to help implement the plan.

Mike Unger. (Elizabeth River and Hess Oil Projects)

Mike reported on the antibody-based chemical sensor project funded through a NOAA CICEET grant (2007-2009). VIMS is working with the **Hess Corporation**, **Elizabeth River Projects** (a citizens group), **Malcolm Pirnie**, the **EPA** and **Atlantic Wood Industries**. The project is studying and monitoring the very high concentrations of Polycyclic-Aromatic-Hydrocarbons (PAH) found in the Elizabeth River sediment. EPA is dredging part of the river at the Atlantic Wood Superfund Site and moving contaminated sediment on shore. So there are challenges with contaminated ground water. Hess is also interested in monitoring groundwater contamination. VIMS is developing new antibodies to differentiate among various sources of pollution. The goal is to develop and use sensors to measure the toxicology and help clean up this area.

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PRESENTATIONS:

Rick Lally. (Oceana Sensor, Virginia Beach)

Rick discussed his company and the potential **partnering opportunities** with VIMS. Oceana Sensor sold its vibration sensor line and now focuses on wireless electronic modules that work in sensor integration networks used by business and government, and wireless sensor module.

Examples: Include an application for the Navy to develop embedded diagnostics for unmanned systems. Also joint work with W&M for an application in corrosion and crack detection. This also has strong application for naval carriers. Opportunities with VIMS include networked sensing systems, equipment asset management and corrosion and crack detection. He emphasized the company's interests in appropriate SBIR and STTR opportunities. Rick also responded to questions about the Hampton Roads Technology Council work in the sensor area. He noted that a state-funded study of the potential for a National Sensors Center in Hampton Roads had just been completed, and that Norfolk State University would host the Center.

PROJECT UPDATES and ACTIONS:

Bill Bean. (Robot Venture Project)

Bill mentioned this is a growing research area - covering both **sensors** and **vehicles** (unmanned, aerial, and sea). The Robot Venture Project has been promoting these activities in Hampton Roads. The **funding** for the Robot Venture Project **expires** at the **end of December 2008**. SPAWAR, a military organization on the west coast, is looking for a location for a robotic training center for CBRNE emergency responders. The center would evaluate available systems. **Cliff Hudson**, a business development consultant to SPAWAR, is evaluating the potential for the center to come to our area. **Rick Lally** noted that it would be good to connect with **Chris Malley** who works with Cliff. **Bill Piersol**, Klett Consulting, is coordinating the visit.

Susan Patterson. (Center for Advanced Vehicle Interoperability and Autonomy Research-CAVIAR)

Susan, as Director of CAVIAR, discussed her partnership with NIA to further research on robotic applications by providing a laboratory for integrated systems, practical testing and evaluation and multi-platform robotic games. **Interoperability** is a key issue. **Next step** will be to locate a facility for R&D to test robotics. CAVIAR plans to occupy space with NIA in the Hampton Incubator in a new 65,000 SF building at Hampton University funded by the recent state bond issue.

Partnering: Includes MOUs with Ft. Eustis, the Ghost Fleet, and NASA Langley and potential strategic relationships with industry.

Mike Unger. (Biodiesel Project)

Mike reviewed the recent meeting held to discuss this project's need to draft a work plan as a guide for moving forward, including discussion of plans for growing algae plants and to identify other groups who are studying algae. The **key issue** is to define the science needed. VIMS has unique strengths in identifying specific types of algae and growing them on substrates, in contrast with other approaches base on free-living algae. The specific work plan could emerge from ongoing discussions with industry. **Alleyn Harned** offered to see if the Office of the Secretary of Commerce and Trade could help in finding funding.

Mike Unger. (VA Dominion Buoy Project)

VIMS and **Jay Diedzic** are working on scheduling a meeting VA Dominion to discuss buoys at Yorktown and Surry.

GENERAL DISCUSSIONS:

All. (SBIR and STTR Submissions)

The group discussed steps we can take to identify opportunities early and to match interested faculty and industry partners. **Rick Lally** emphasized the need to screen solicitations early during the open-contact period while the proponents are still free to answer questions. **Eric Weisel** noted that there was an Army SBIR for a physics-based sensor for the transfer of contaminants. Rick Lally expressed interest in following up on that. **Bill Bean** said the proposals are hard to track, and that we need to develop a list of key words for searches. He noted that **Jane Lopez** and **Lyle Varnell** were the key contacts at VIMS in identifying faculty who might be interested. John Wells asked Jane and Lyle to provide comments at the next meeting about how we can improve the process. **Alleyn Harned** expressed his office's interest in tracking proposals in the area of UAVs and space.

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GENERAL DISCUSSIONS:

Carl Friedrichs. (VIMS Research Clusters)

Carl asked what policies W&M had concerning the development of research centers.

John van Rosendale noted that three clusters had been created in the late 1990s. They have had mixed success. The model seems to work best when there is substantial outside funding, as in the case of VMASC at ODU. Carl asked if there were any plans for an engineering program at W&M, because he thought that would help VIMS. The group discussed the Applied Science program and the role it might play, particularly if it expanded. The group felt it would be useful for VIMS to identify more precisely what the benefits might be, and what the areas were that would provide the most help to VIMS. There were no plans to develop a school of engineering at W&M, but the role and structure of research at W&M will be an important topic in the strategic review this year. Some participants noted the potential for closer collaboration in the engineering area with NIA.

Eric Weisel. (WernerAnderson)

Eric and Ben Francisco reported that Ben left Alion and has now joined WernerAnderson.

John Wells thanked the participants and adjourned the meeting at 11:55.

NEXT STEPS:

Active Grant Opportunities

- **Biodiesel:** The VIMS-Industry Committee will continue to track progress in development of the work plan and look for opportunities to assist in this effort.

Extension of On-Going Projects

- **Strategic Planning:** **John Wells** will coordinate with **Doug Meredith** about any potential legislative issues.
- **Elizabeth River:** As **Rick Lally** noted, this project is an excellent example of applying and developing VIMS research to help deal with pressing industry issues. VIMS and W&M will promote this effort.

Exploration of New Opportunities

- **Robotics:** The potential for an integrated robotics test site under the CAVIAR initiative provides opportunities for VIMS research on autonomous underwater vehicles. The Committee will continue to explore opportunities in that area.
- **Dominion Buoy Project:** This effort is still in the early discussion stage. It sounds like a promising application of VIMS technology. The Committee will continue to track this effort.
- **Research Centers:** **Jim Golden** and **Dennis Manos** will work with **John Wells** and **Carl Friedrichs** to identify specific areas where expanded research at W&M would complement VIMS strategic plans, particularly in exploring potential expansion of the Applied Science program.

Improving Partnership Processes

- **SBIR and STTR Opportunities.** **John Wells** asked **Lyle Varnell** and **Jane Lopez** to explore how we can improve coordination between industry and faculty to identify opportunities early and prepare effective proposals. **Bill Bean** will explore industry ideas to improve the process and explore with **Alleyn Harned** potential assistance that the Department of Commerce and Trade might provide.
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Next Meeting

Friday, October 17, 2008. VIMS Director's Conference Room, Watermen's Hall. 10:00am – Noon.
