



CMR Defense Members Meeting May 9-10, 2019, Raytheon Facility, Portsmouth, RI

Roundtable Notes May 10, 2019

(in no particular order)

- We need to broaden the O&G connections with defense. Real security issues are likely going un-addressed. Need to bring in a broader set of companies.
- How do we break out of the mold? Use modeling and simulation in a consortia format to put in front of decision makers to show what's at stake.
- Technology roadmapping is very fascinating. This group should do this for the industry. Digital test facility needs to be implemented by WHOI. Get more general robotics in the room to learn. CMR should work more to draw more talent from universities, etc. to support marine robotics work. Northeast Regional CMR Day to draw the students.
- Most don't have the luxury of airbus. We inherited products. What is the customer mapping as opposed to the technology mapping? Assistance for small companies that are starting to say what I've got not knowing all the opportunities out there. Sit down with an eclectic group that understands the applications and can educate the small companies.
- Integrate VC at a lot of different stages. Matches with DisruptorWorks. Need to do rapid prototyping and testing with a lot of partners. Share data back. Don't outsource equity as a resource for DW. Sliding cash and equity scale. Talk about ideas offline.
- Having the right people on the team working on problems. Successful transition happens with a motivated sponsor/champion.
- Encourage us to judge each other by our actions. Need for classified environments and working to help develop these activities, especially for DisruptorWorks. Raytheon offered to help figure out how to tie in classified sites. Navy and Raytheon will make the investment.
 - We need to generate CONOPS. We (defense) should be working more closely with O&G.

- Don't forget about the marketing roadmap. Just as important as the technology roadmap. Happy to hear about ROS efforts at WHOI. Fast track software development is essential. Need to advance horizontally and less vertically to understand what's happening and what's needed.
- Need more meetings like this.
- We have a unique community. OTA vehicles are great. In the past, written off commercial endeavors that shouldn't continue. Need to work more with O&G. Infrastructure and capital that they can make that will make impacts on the community will be more of a priority. Understand where we fit in the larger ecosystem and take care of all the players to be successful. Maybe more university involvement. We are all vying for talent. Encourage students and grad students to move around our organizations more seamlessly. Willing to help with cross-state collaboration.
- There is an opportunity to educate capitol hill and the administration to make sure the money becomes available.
- Companies and organizations are lending your reputations that matter. Can bring the comparable programs on university programs. Will help in any way we need. Robotics groups are rebranding to a larger AI and ML offering. The market opportunity is being discovered though not all worked out.
- See lots of opportunity for collaborations. Each side is ahead on certain items. Infrastructure for a subsea wireless communications system is a place for collaboration.
- Should maybe call the meeting or the group the National Security group to appeal the larger uses. Southeastern CT is becoming a hot bed of the blue economy. Location is great. Will be a supporting the offshore wind industry due to pier and port availability. Crisis that drives autonomy could be a lack of money.
- Parochialism and tunnel vision is evident in the larger community. Military needs to find a way to adapt to the present and future decisions. Has a huge powerful way to get products to the market...gives example of Microsoft and ThayerMahan. Need to lose the parochialism and realize the value of alliances to make the bigger and more rapid changes
- Seeing where technology can be applied to the ocean is a goal of his. Bringing in outsiders help – cross domain pollinating.

- Rapid pace of commercial growth in maritime sector is amazing to those in defense sector. China raiding companies regionally is happening. Growing and sustaining competitive advantage is a benefit of technology road mapping. Being first to market is only helpful to global national security environment or providing barriers to entry to our adversaries.