



**NOAA
SCIENCE
ADVISORY
BOARD**

NOAA SCIENCE ADVISORY BOARD

REPORT ON PUBLIC-PRIVATE PARTNERSHIPS

March 20, 2024

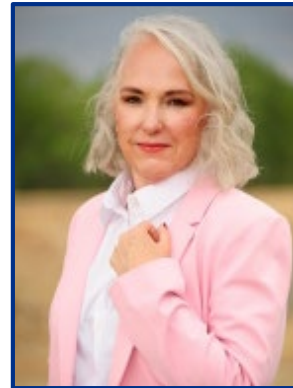
The Subcommittee



Dr. Steve Weisberg
Subcommittee Co-lead,
SAB Member



Mr. Jon Allan
Subcommittee Co-lead,
SAB Member



Dr. Betsy Weatherhead
Subcommittee Co-lead,
SAB Member Emeritus



**Dr. Ilene
Carpenter**
Subcommittee
Member,
SAB Member



Dr. Ilse Gayl
Subcommittee
Member,
EISWG
Member



**Dr. David
Grimes**
Subcommittee
Member,
SAB Member



Dr. Anthony Wu
Subcommittee
Member,
SAB Member



Background

- Project Proposed at December 2021 SAB Meeting
- Interviews and outreach
 - P3 experts from within NOAA
 - Federal P3 experts outside of NOAA
 - Private industry P3 experts
 - Exploration of other agency approaches



Recommendations

Clarify future NOAA directions so investors understand where untapped opportunities exist

Nurture external research or technology development beyond the initial investment phase

Create partnerships to standardize new technologies



Clarify NOAA's Future Directions

- **NOAA has a good history of mutual support with the private sector weather forecasting community**
 - There is opportunity to expand that model to other areas within NOAA's mission, such as Space Weather, Climate Services, and Coastal Management
- **Key to this is clarifying NOAA's future directions with specificity**
 - Enough specificity that Investors/developers understand where untapped opportunities exist
 - And where opportunity does not exist
- **Enhance engagement with partners to share information and answer questions**
 - Hold routine public meetings describing future NOAA plans and unmet needs
 - Clarify beyond what is written in Planning Documents



Nurture Fledgling Technology

- **NOAA has good mechanisms for engaging industry in early technology development**
 - But less support for identifying gems among these investments and helping them shine
 - NOAA should help its partners cross the “valley of death”
- **Assign Project Champions to facilitate adoption of successful projects**
 - Provide feedback about use case application and smooth agency introductions
- **Hold workshops to share progress with potential next-stage investors and buyers**
 - Present progress to high-level program staff and external partners
 - Introducing developers to international clients can be particularly helpful
- **Seek a mechanism, like DARPA as a Technology Accelerator, to stimulate and drive innovation in areas that align with NOAA's mission**



Partnerships to Standardize Technology

- **Widespread adoption of novel technologies is often dependent on standardization within an industry**
 - Variable results from different providers create information barriers
- **NOAA must engage many entities to achieve technology standardization**
 - Does well in coordinating with other federal agencies
 - Could do a better job with entities such as States and industry trade groups
- **NOAA should develop a programmatic approach to standardization**
 - Probably as the trusted partner that facilitates collaboration, rather than being the primary entity responsible for standards creation



New to the report

- **During our initial report out, Dr. Spinrad asked if we could take an additional step**
 - How does being within Department of Commerce better position NOAA to facilitate P3s?
- **Interviewed 7 people from three other Department of Commerce agencies**
 - What has worked, what has not, and what are the unexplored opportunities
- **Bottom line: Dr. Spinrad's question correctly identified opportunities**
 - We added a section to the report that describes three examples
 - Examples are to illustrate opportunity rather than a prescriptive set of recommendations



Three examples

- **Economic Development Administration (EDA)**
 - EDA offers coaching, educating innovators about the value chain of their products
 - Their Build-to-Scale grants can help innovators pass through the valley of death
- **US Patent and Trademark Office (USPTO)**
 - Office of Innovation Outreach exists to educate people about how/when to file a patent application
 - There is history of successful partnership between NOAA and USPTO
- **National Institute of Standards and Technology (NIST)**
 - NIST creates reference materials and calibration approaches that are core to standardization
 - Their Manufacturing Extension Partnership (MEP) helps innovators scale from pilot to demonstration



DISCUSSION
