

Sensing the Environment

Environmental systems are very complex with a large amount of spatial and temporal variability. One cutting edge is the development of **new sensor technology**. We believe there is an opportunity to **connect current infrastructure across Yale and build out some new infrastructure to both seize on new initiatives around sensor technology and make sensor technology development more accessible to folks across the University**.

Included in this effort would be:

- Developing new sensors
- Deployment of sensors in harsh environmental environments
- Deployment of network sensors (internet of things)
- Communicating, analyzing and presenting large environmental sensor data sets

There is a huge amount of **intellectual capacity** here at Yale around the environment/ecology (some already using sensors and pushing sensor technology). There are also strengths and physical capital with respect to **fabrication facilities**.

What we need are some **improvements in physical capital (e.g., electronics)** but also research/data/coding environmental **research engineers** dedicated to connecting the intellectual capacity around environment/ecology with next generation approaches for sensing the environment in order to answer cutting edge questions around the environment.

We see an effort on “Sensing the Environment” as a great opportunity to bring together scholars across campus and in direct alliance with the Planetary Solutions effort developed from the USSC report.

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