



PNNL / UW Strategic Initiative: Northwest Institute for Advanced Computing



Mani Soma
Associate Vice Provost for Research
University of Washington, Seattle
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Major Societal Problems of Focus

Health
Economic Vitality **Justice and Equality**
Environmental Sustainability and Clean Energy
Educated and Engaged Local and Global Citizens **Education**

Foundational Capabilities

Big Data (including NIAC): data-enabled science

Imaging

Materials characterization

Strategic Framework for Research

What will the future look like?

- More competitive, collaborative, technology-reliant, nimble, and diversified.

What is our core competitive edge?

- Quality
- Breadth
- Focus on balance between basic research and providing solutions to society's most pressing issues.

How do we achieve competitiveness?

- Focus on recruiting and retaining top faculty
 - Colleagues
 - Students
 - Facilities
 - Startup/compensation
- Enabling collaboration
- Enabling high risk/high return research



2013-2014 Initiatives

- Fostering collaboration
- Fund-raising for innovation
- Large collaborative initiatives



NIAC

- **Foundational research** supporting many science / engineering research disciplines
- Complements UW eScience initiative
 - Established before NIAC
 - Professor Ed Lazowska, Director
- **Attracting the best researchers and best students / research staff to PNNL / UW**
- Attracting research support from many sources



NIAC framework

- Joint personnel appointment
 - Across many UW academic departments and PNNL laboratories
- Assistance in recruiting
- Joint supervision of graduate students
- Avoidance of double overhead on joint research projects
- NIAC framework will be used a guide in future PNNL / UW strategic cooperation



NIAC future directions

- Expansion to more UW academic departments and PNNL laboratories
- Permanent space
- Linkage with other existing major research programs in computational science and engineering
-based on vision / feedback from workshop attendees (**YOU**)!