

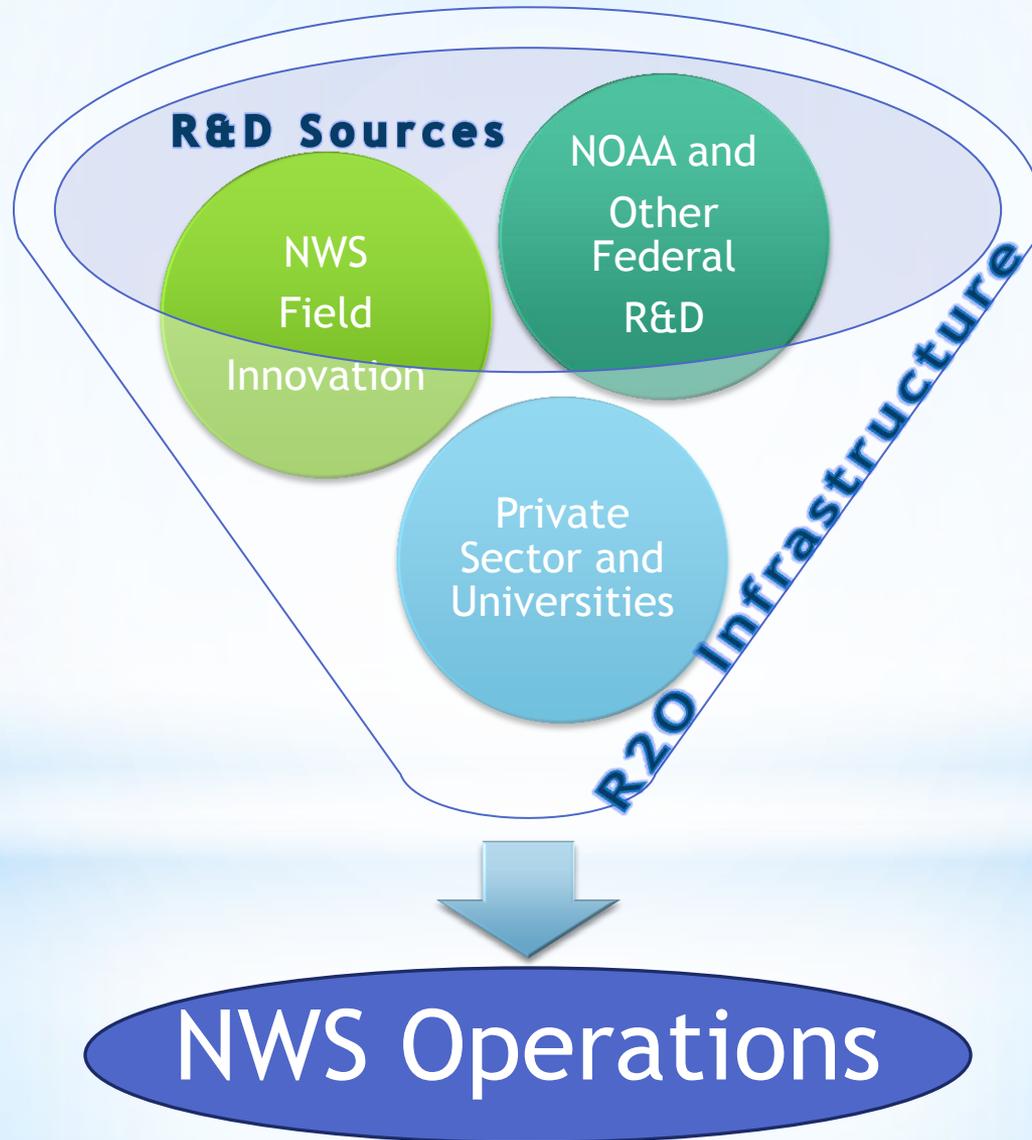
NWS VIRTUAL LABORATORY

CONNECTING PEOPLE - ENABLING INNOVATION

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NWS Virtual Laboratory

The Virtual Laboratory (VLab) is a service and IT framework which enables NWS employees and their partners, who are not co-located, to share ideas, collaborate, engage in software development, and conduct applied research.



Implementation of the VLab:

- Reduces the time and cost of transitions of NWS field innovations to enterprise operations,
- Minimizes redundancy and leverage complementary, yet physically separated, skill sets,
- Forges scientific and technical solutions based on a broad, diverse consensus, and
- Promotes an R2O culture based on collaboration and trust



Guiding Principles

Transparency

Teamwork

Flexibility

Responsiveness

Accountability



Scope

- VLab is open to all NOAA employees*
- The VLab supports both informal collaboration and prototyping as well as formal, structured development
- The VLab development is targeted to the following operational systems:

Advanced Weather Interactive Processing System (AWIPS)

NWS Internet Dissemination System (NIDS)

Weather and Climate Operational Supercomputing System (WCOS)

*Currently implementing access to users outside of NOAA



How Would You Like To Innovate Today?

...Alone we can do so little; together we can do so much. Helen Keller

Science
Sharing

Communities

NRAP VLab
Positions

Projects

Share Your
Expertise



VLab Services

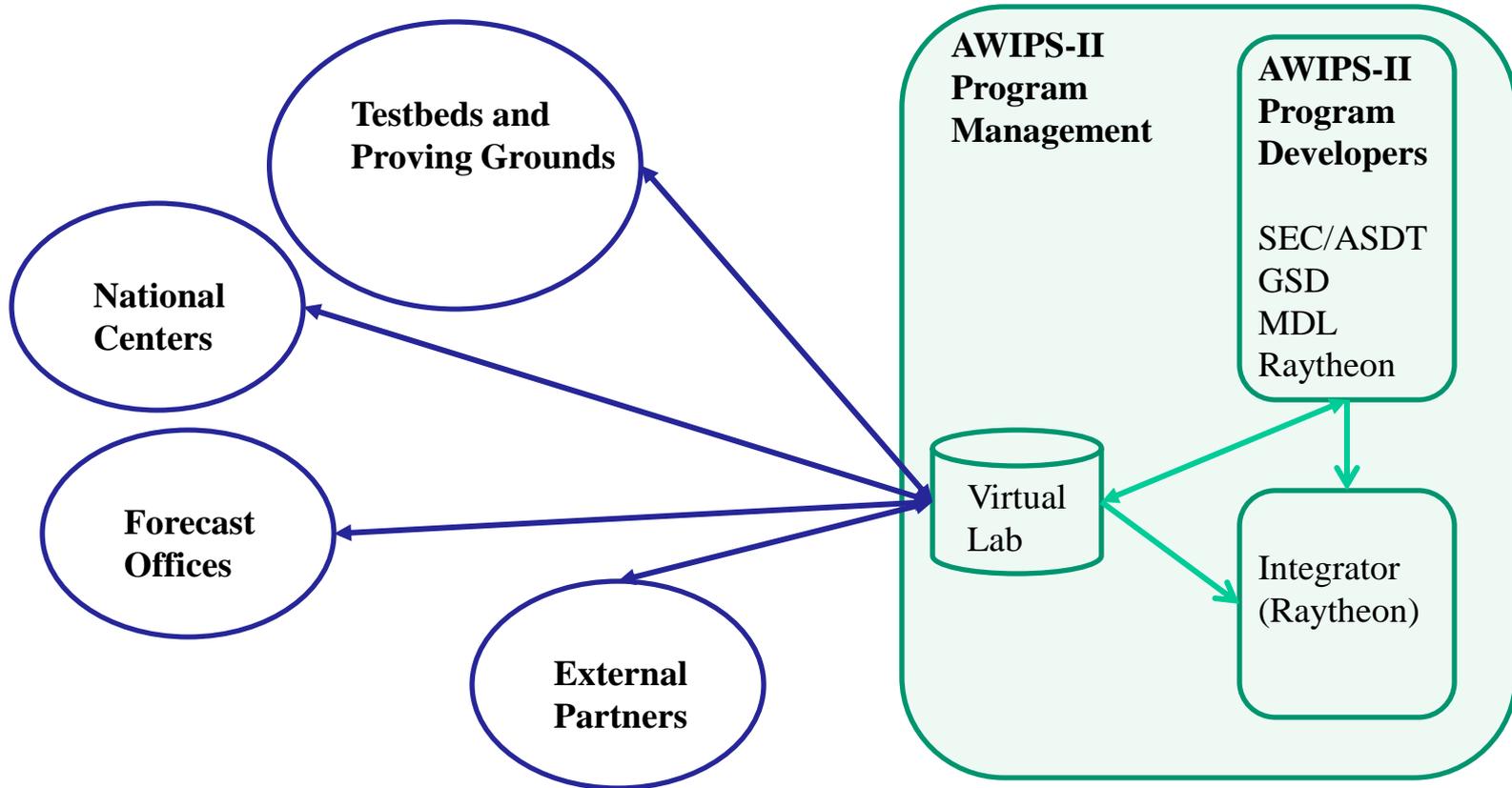
- **Communities**
 - *Virtual* Tools to Support *Real Collaborators*
- **VLab Development Services**
 - Redmine – Project Management
 - Git – Software Repository
 - Gerrit – Code Review
 - Jenkins – Continuous Integration
- **Science Sharing**
 - Document Library
 - You Make the Call – Forecaster Training

Services Coming Soon

- **All AWIPS-II Baseline Development**
 - Continuous Integration
 - AWIPS Development Community and Software Development Process
- **NRAP VLab adjunct positions**
- **Share Your Expertise**
- **Share Your Project aka “Push Your Project”**



AWIPS Development Community



Process Orientation

Bottom-Up

Top-Down

VLab and Open Weather and Climate Services

- In 2011, the NOAA Science Advisory Board proposed a new paradigm called the Open Weather and Climate Services (*Open WCS*) in which both NOAA and the U.S. Weather Community share equal and full access to NOAA information and development
- The VLab could be extended to address the open development part of Open WCS



VLab is Open For Business!

- **NOAA's Testbed and Proving Grounds can take advantage of the VLab to support:**
 - Operations related-activities by establishing Communities in the VLab
 - Collaborative projects by requesting VLab Development Services.
 - Communication of results by uploading relevant reports and publications to the Science Sharing document library.