

R&D Complete. Now What?

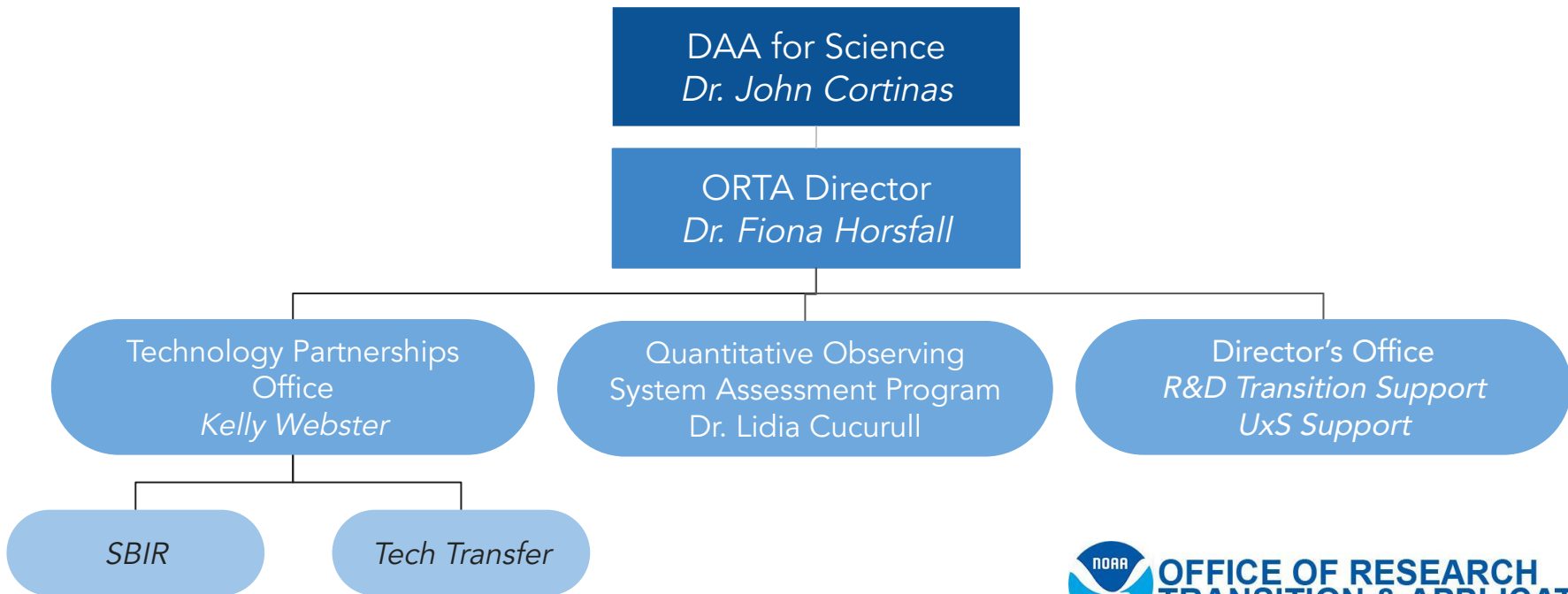
CPASW/CDPW 2024



Dr. Fiona Horsfall

Office of Research, Transition, and Application (ORTA)

NOAA OAR Office of Research, Transition, and Application (ORTA)



ORTA MISSION

Advance innovative research and development to support NOAA's mission and the US economy.



ORTA's visit to the Atlantic Oceanographic
Meteorological Laboratory, April 2023

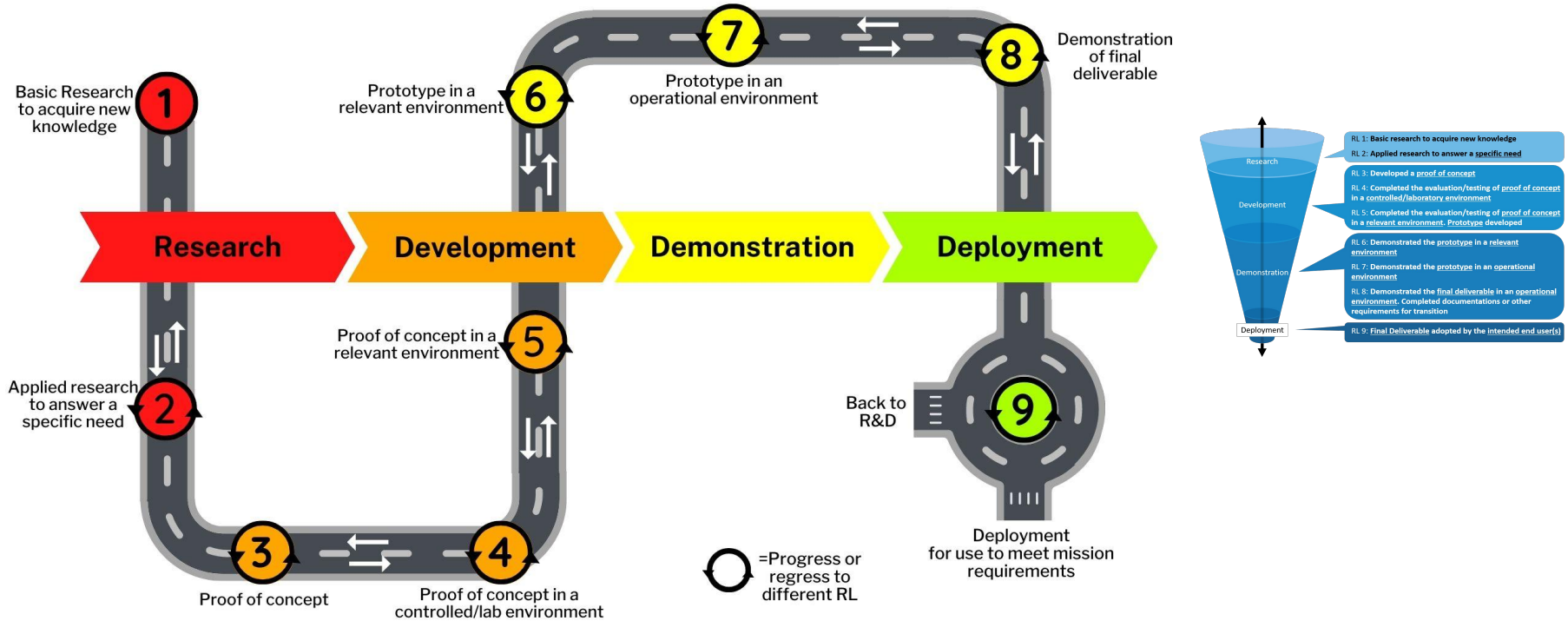


R&D Transition into ?

R2X

- **Operations**
 - **NWS - all the time, on time, in real time**
 - **Other lines do not necessarily use this definition**
- **Routine use - variable times depending on mission**
- **Application**
- **Commercialization**
- **To intended use**
- **R&D is no longer being worked on but is working for us**

Pathway of R&D to Deployment or Use Readiness Levels (RLs)



Transition into RL9

- R&D/technology to be implemented is no longer “experimental”
- Adopted by the end-user
- Fully integrated with existing operational hardware and
- Sustained engineering maintenance and/or budgetary support have been arranged/planned by the adopting end-user
- Any data or observations have passed the end-user criteria for transition acceptance
- Functionality has been thoroughly tested in its operational environment with proven mission success
- All user documentation which includes training and maintenance is complete



NAO 216-105B: POLICY ON RESEARCH AND DEVELOPMENT TRANSITIONS

- Transition plans (TPs) are recommended for projects at RL4 and above
- Transition Plan: A document that represents an agreement between clearly identified researchers and potential recipients, organizations, or other users of the product resulting from the transition of an R&D output.



Why Make A Transition Plan

The best science is necessary but not sufficient for a successful transition. ~Ben Richards, NOAA

Transition plans:

- **Bring awareness to the NOAA R&D portfolio and how it furthers NOAA's mission**
- **Layout a roadmap for projects on how they will evolve into usable technologies or knowledge**



Transition plans are important tools to ensure that everyone knows and understands the steps and risks of a project, and they are extraordinarily valuable tools for the budget process.

Message conveyed to staff by Dr. Richard Spinrad, NOAA Administrator



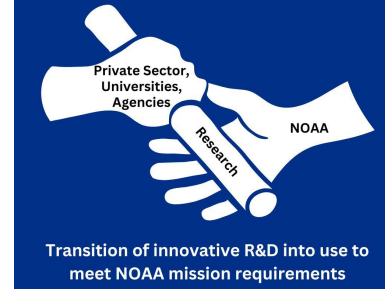
Transition Plans Facilitate End User Engagement and Transfer of Technology



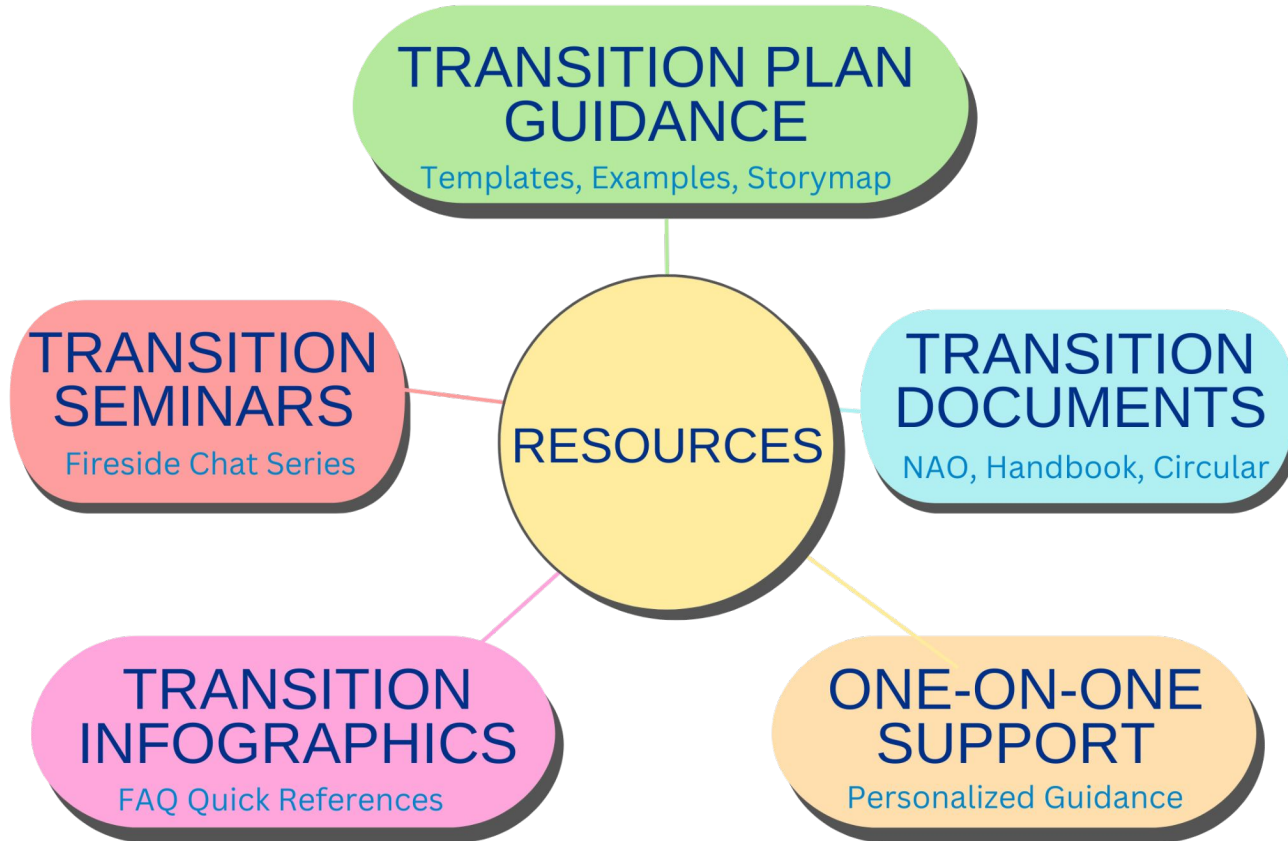
Transition plans are

- Living documents to be amended as needed
- Signed to provide situational awareness of the work and review / acknowledgement to move forward

A signed transition plan does not represent a binding agreement and/or availability of funding.



ORTA R&D Transition Support



Types of Transition Plans



Basic

Simplified initial project transition plan; low maturity level R&D transition plan for projects at RL4 or less.



Standard

Project transition plan for RL4 and above; can sometimes describe complex R&D and transition.



Multi-Project Umbrella

Transition plan that groups together individual project transition plans with similar subject matter



Multi-Component Umbrella

Transition plan that describes one project with complex multiple components planned for transition.



Mission-Focused

Transition plan for technologies that are at a mature stage (RL8-9); some may have already transitioned with an approved transition path, but may not have had transition plan in place.



Knowledge

Plan for transition of knowledge either to an adopter or a group (e.g. risk managers, hurricane research community, or the general public), and can include knowledge transfer/transition as publication of a journal article, public-facing report, agency recommendations, and other forms of knowledge that are intended for society and/or the scientific community.



Modular

Transition Plan that documents the overarching, long-term project goal and provides research and development (R&D) history, background, and methodology for the initial work in the Base Transition Plan section II. Modules are added to the Transition Plan to document each component project intended for transition.



Are you also looking to commercialize?

Additional information is required in the transition plan to protect NOAA-developed intellectual property.

<https://orta.research.noaa.gov/plans/>

There is no "one-size fits all" transition plan, and each unique transition plan will require structure and content specific to the project being transitioned.

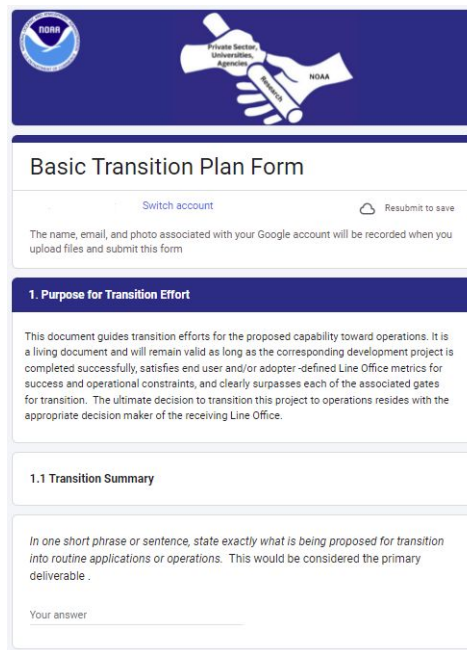


On December 5-6, 2023, the Office of Research, Transition, and Application (ORTA) held a transition planning workshop at the Pacific Marine Environmental Laboratory (PMEL) in Seattle, WA to help demystify the transition planning process and provide PMEL scientists with information and resources needed to develop transition plans.

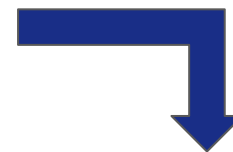
Automated Transition Plan Tool and Templates

Simplifying the process for developing transition plans

- Web-based tool - Google form and script
- Accessible and user-friendly for initiating development of transition plans
- Automatically puts information into a basic transition plan template
- Can be further edited in Google Docs
- Currently in beta test mode by OAR/GOMO
- Anticipated Launch: May 2024



The screenshot shows the 'Basic Transition Plan Form' interface. At the top, there is a header with the NOAA logo and a graphic of two hands shaking, labeled 'Private Sector, Universities, Agencies' and 'NOAA'. Below the header, there are options to 'Switch account' and 'Resubmit to save'. A note states: 'The name, email, and photo associated with your Google account will be recorded when you upload files and submit this form'. The main section is titled '1. Purpose for Transition Effort' and contains a paragraph of introductory text. Below this is a section for '1.1 Transition Summary' with a text area for the user to provide a short phrase or sentence describing the transition.



{{ProjectTitle}}



Research to Operation Basic Transition Plan

Principal Investigator(s):

{{Names}}

{{Date}}

[Optional - Insert Logos]

Disclaimer of Use and Endorsement: Reference to any specific commercial product, process, or service, or the use of any trade, firm or corporation name does not constitute endorsement or recommendation by the Department of Commerce/National Oceanic and Atmospheric Administration.

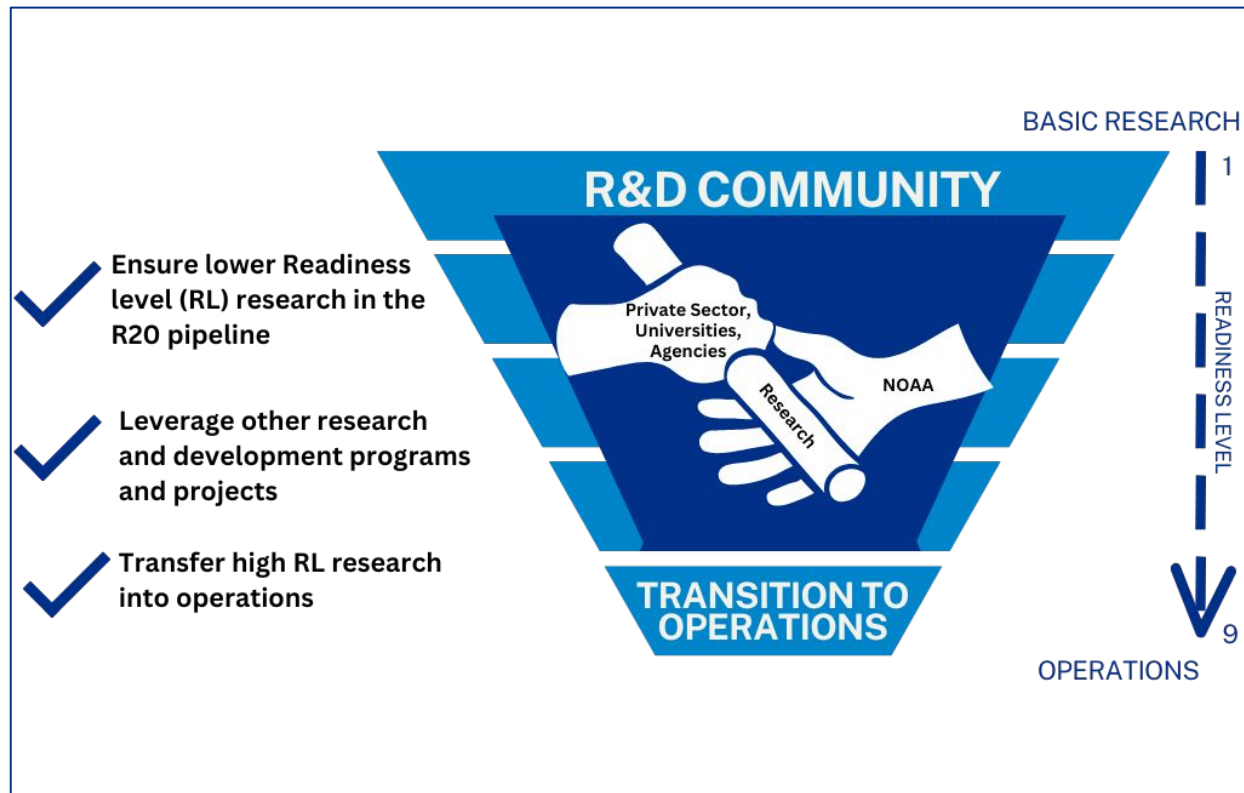
1

Development in Parallel: Transition Plan and Data Management Plans

- Transition plans (TPs) are recommended in [NOAA Administrative Order \(NAO\) 216-105B](#) for projects at RL4 and above
- Data management plans (DMs) are prescribed by [NAO 212-15](#) [“Management of Environmental Data and Information”](#)
- **TPs and DMs can be developed in parallel**

Collaboration with External Communities

- Transition plans are only signed by NOAA
- Other organizations can provide letters of support to be incorporated into transition plans



NWS Has a Well Defined Transition Review Process

- Ensure all relevant NWS service delivery portfolios are aware of emerging R2O projects for future planning purposes
- Allow NWS portfolios an opportunity to provide feedback on proposed transition path & identify potential challenges to be addressed
- Template used to present at R2O Transition Plan Review
- **This is a review, not a transition plan; transition plans are still needed**

ORTA Transition Support is here to help!

We are resource to assist with the development of Transition Plans and streamline transition processes across all of NOAA



SUBMIT FEEDBACK

[ORTA Feedback Form](#)

Future ORTA Plans:

- Create tools to streamline the transition process
- Increase engagement with users
- Expand our role in the overall transition process

orta.research.noaa.gov | oar.orta@noaa.gov