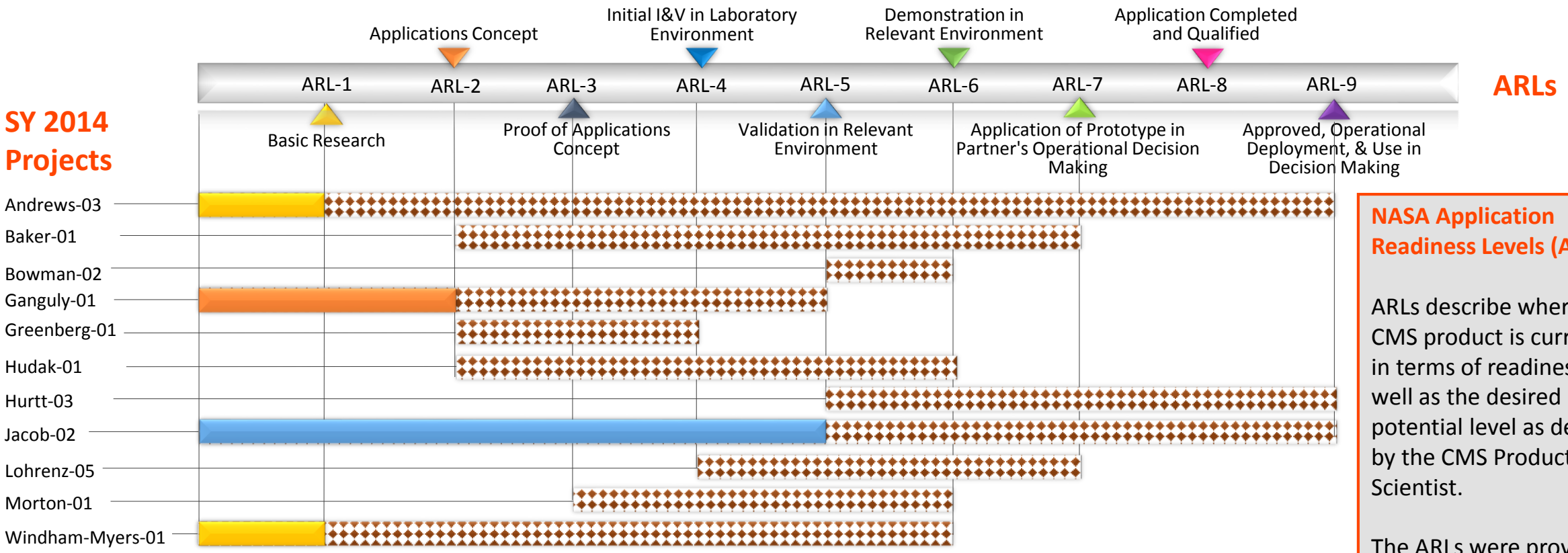
SY 2014 Projects



Fatoyinbo-01
Ott-01
Walker-W-01
Williams-C-01

Different ARLs are provided for the products in these projects. Refer to individual corresponding charts describing the product ARLs.

Project ID
PI-Project # (Andrews-02)-Each CMS Project is represented by its color and identified by the PI on the project

Solid color: each solid bar is indicative of where the PI feels their project is NOW in terms of application readiness.

Pattern fill: indicates the level each PI is striving for and the application readiness level they feel their project can ultimately satisfy.

Gradient fill: indicates current level has not been reached fully.

NASA Application Readiness Levels (ARLs)

ARLs describe where the CMS product is currently in terms of readiness, as well as the desired and potential level as defined by the CMS Product Scientist.

The ARLs were provided by the CMS Product Scientist and represent the most accurate representation of the state of each product.

Products can start at any level. It is not expected they will start at ARL1 and end at ARL9.

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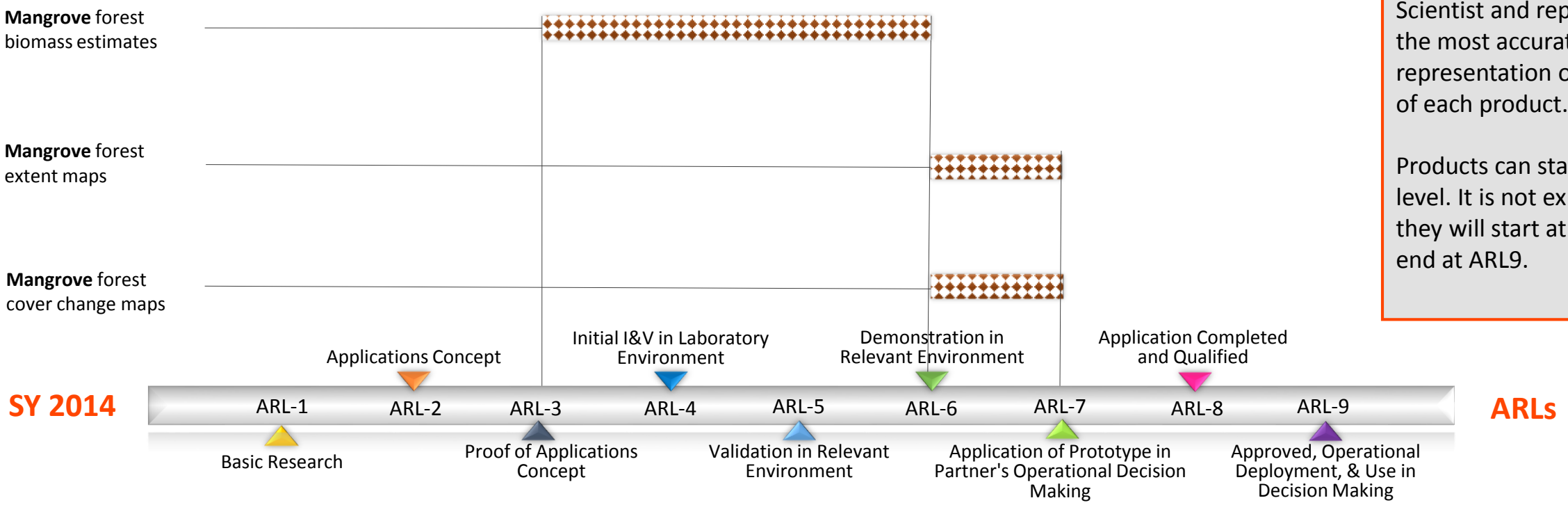
Fatoyinbo-01 Products



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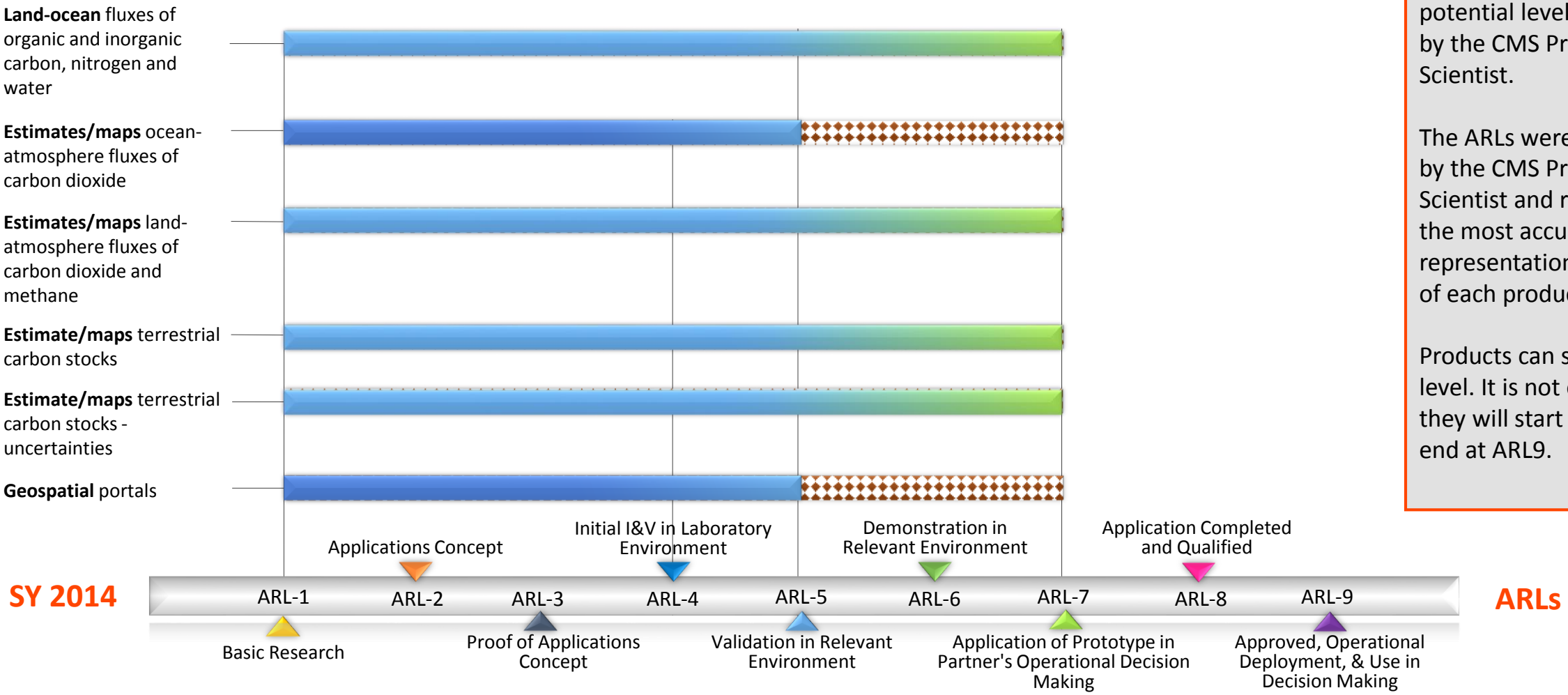
Lohrenz-05 Products



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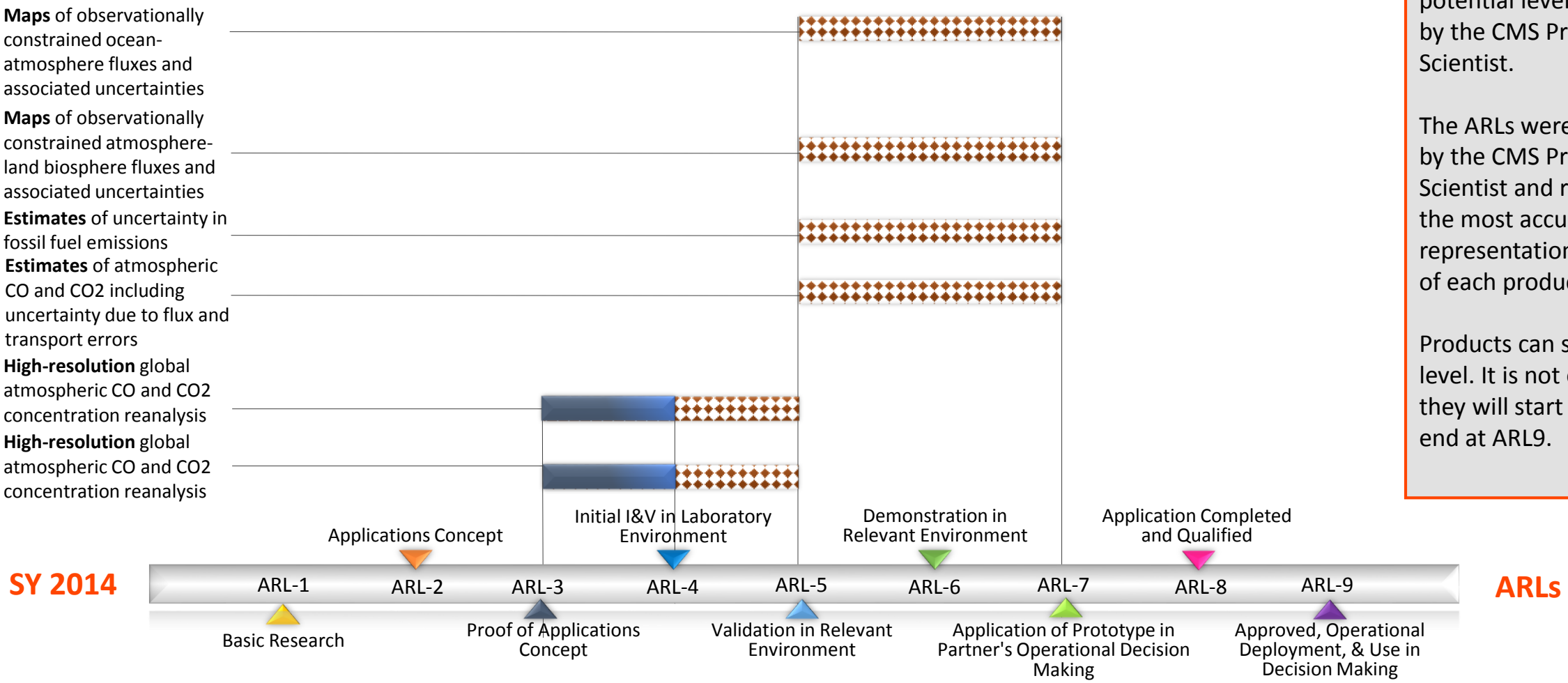
Ott-01

Products



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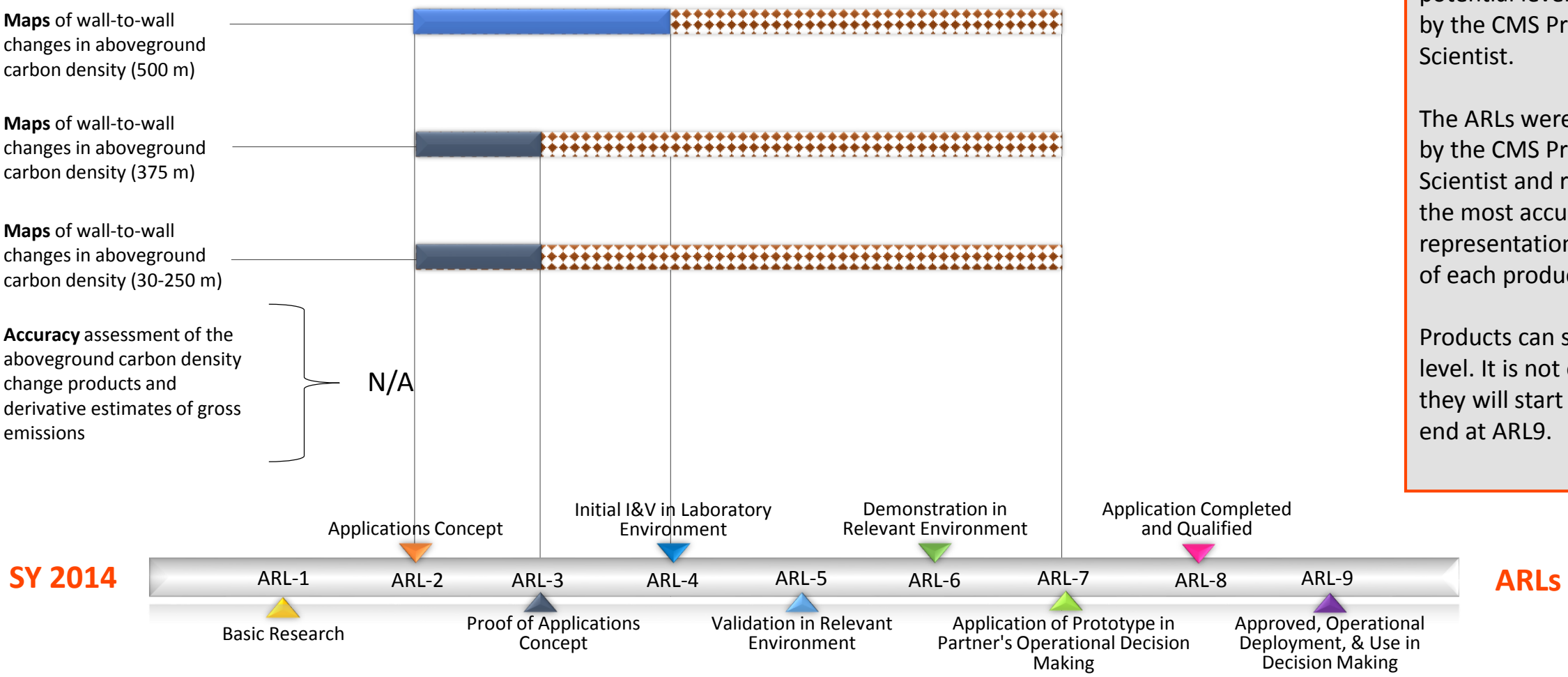
Walker-W-01 Products



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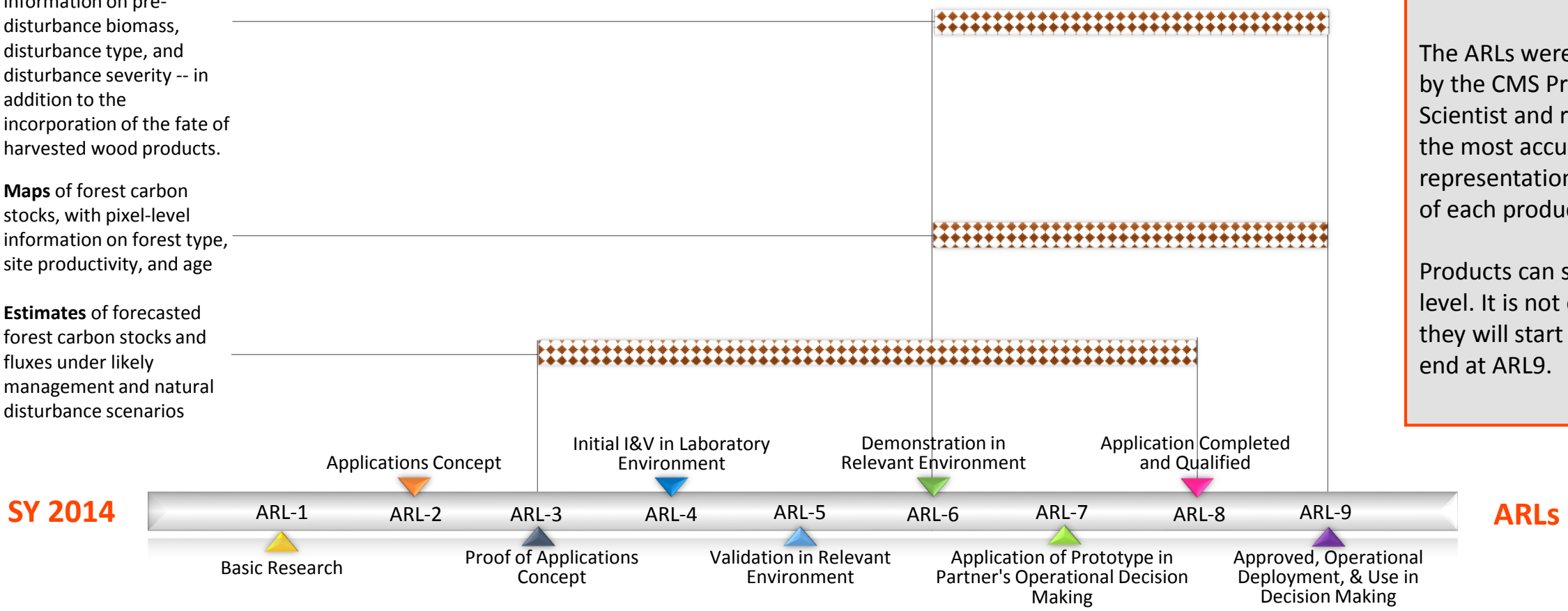
Williams-C-01 Products

Maps of forest carbon fluxes, with pixel-level information on pre-disturbance biomass, disturbance type, and disturbance severity -- in addition to the incorporation of the fate of harvested wood products.

Maps of forest carbon stocks, with pixel-level information on forest type, site productivity, and age

Estimates of forecasted forest carbon stocks and fluxes under likely management and natural disturbance scenarios



CMS Application Readiness Level Descriptions

Color Code	Applications Readiness Level	Description
	ARL-1	Basic research
	ARL-2	Applications Concept
	ARL-3	Proof of Applications concept
	ARL-4	Initial integration and verification in a laboratory environment
	ARL-5	Validation in relevant environment
	ARL-6	Demonstration in relevant environment
	ARL-7	Application of prototype in partners' operational decision making
	ARL-8	Application completed and qualified
	ARL-9	Approved, operational deployment, and use in decision making

Desired Level

START YEAR 2014 CMS PROJECTS

Project Group	Project Title
Andrews-03	Regional Inverse Modeling in North and South America for the NASA Carbon Monitoring System
Baker-01	A Global High-Resolution Atmospheric Data Assimilation System for Carbon Flux Monitoring and Verification
Bowman-02	Continuation of the CMS-Flux Pilot Project
Fatoyinbo-01	Total Carbon Estimation in African Mangroves and Coastal Wetlands in Preparation for REDD and Blue Carbon Credits
Ganguly-01	Reducing Uncertainties in Satellite-Derived Forest Aboveground Biomass Estimates Using a High Resolution Forest Cover Map
Greenberg-01	Reducing Uncertainties in Estimating California's Forest Carbon Stocks
Hudak-01	Prototyping a Methodology to Develop Regional-Scale Forest Aboveground Biomass Carbon Maps Predicted from Landsat Time Series, Trained from Field and Lidar Data Collections, and Independently Validated with FIA Data
Hurtt-03	High Resolution Carbon Monitoring and Modeling: Continuing Prototype Development and Deployment
Jacob-02	High-Resolution Constraints on North American and Global Methane Sources Using Satellites
Lohrenz-05	An Integrated Terrestrial-Coastal Ocean Observation and Modeling Framework for Carbon Management Decision Support
Morton-01	Long-Term Carbon Consequences of Amazon Forest Degradation
Ott-01	GEOS-Carb II: Delivering Carbon Flux and Concentration Products Based on the GEOS Modeling System
Walker-W-01	Direct Measurement of Aboveground Carbon Dynamics in Support of Large-Area CMS Development
Williams-C-01	Translating Forest Change to Carbon Emissions/Removals Linking Disturbance Products, Biomass Maps, and Carbon Cycle Modeling in a Comprehensive Carbon Monitoring Framework
Windham-Myers-01	Linking Satellite and Soil Data to Validate Coastal Wetland 'Blue Carbon' Inventories: Upscaled Support for Developing MRV and REDD+ Protocols