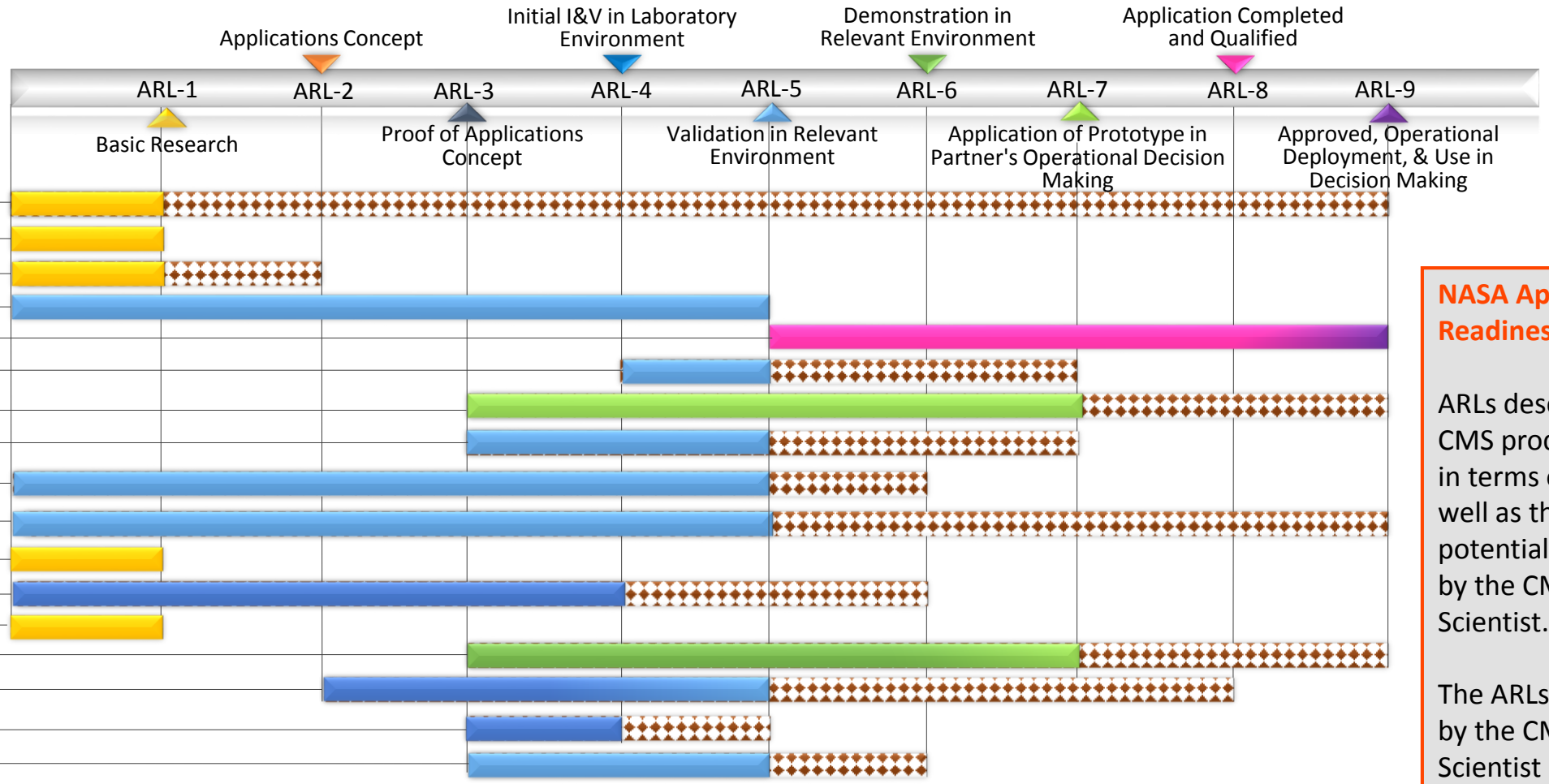
SY 2012 Projects



ARLs

Bowman-01
Kennedy-01
Pawson-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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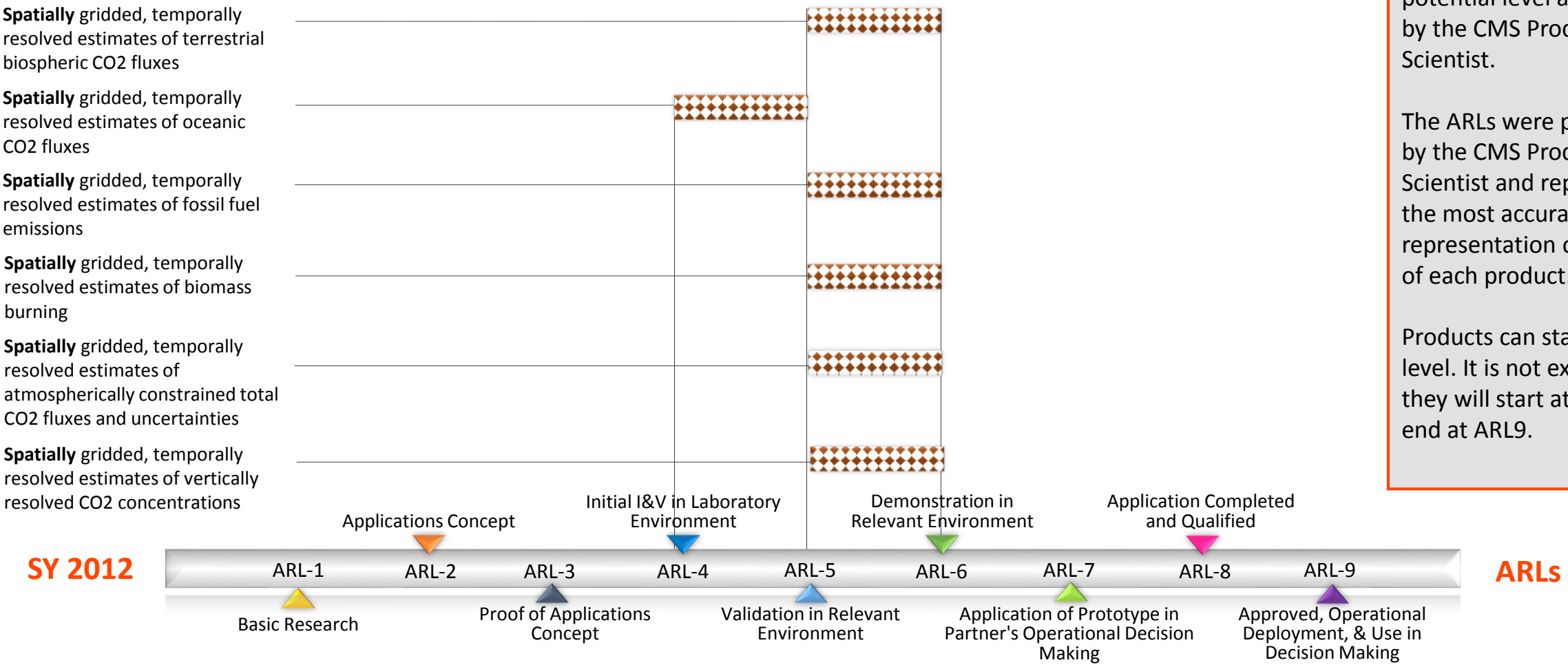
Bowman-01 Products



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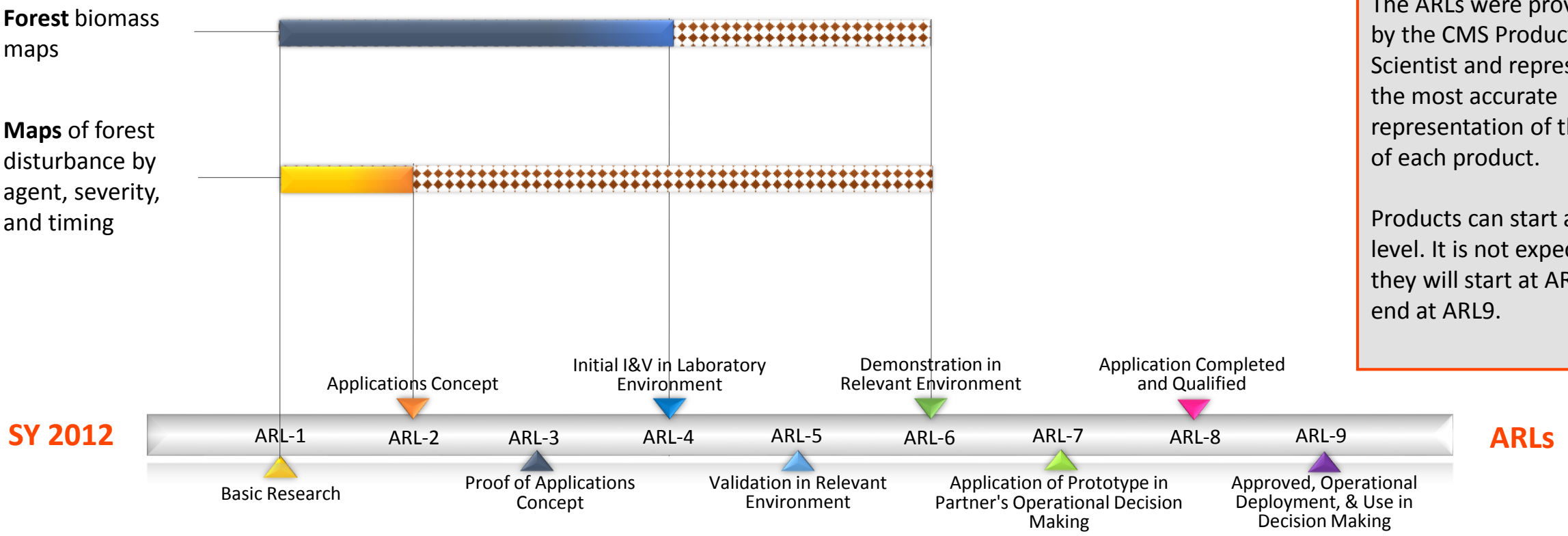
Kennedy-01 Products



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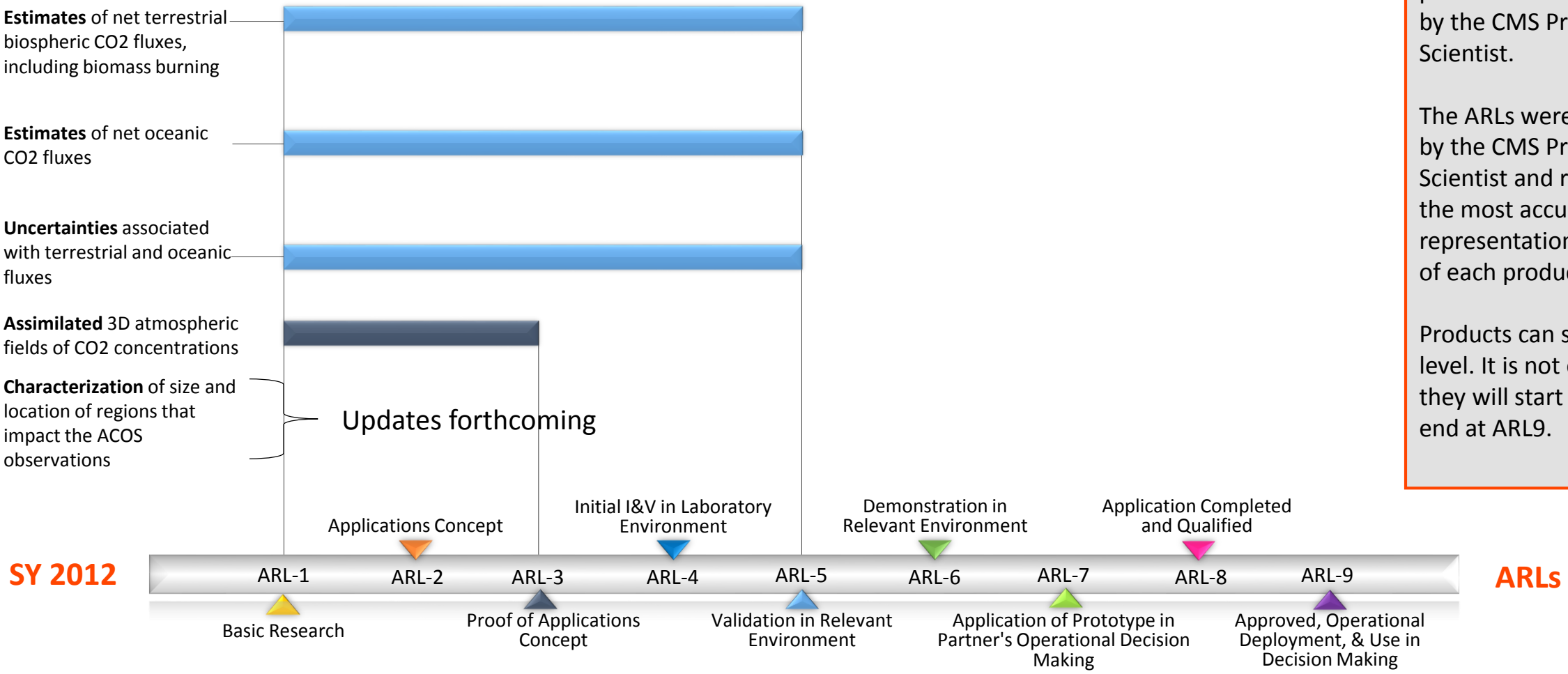
Pawson-01 Products



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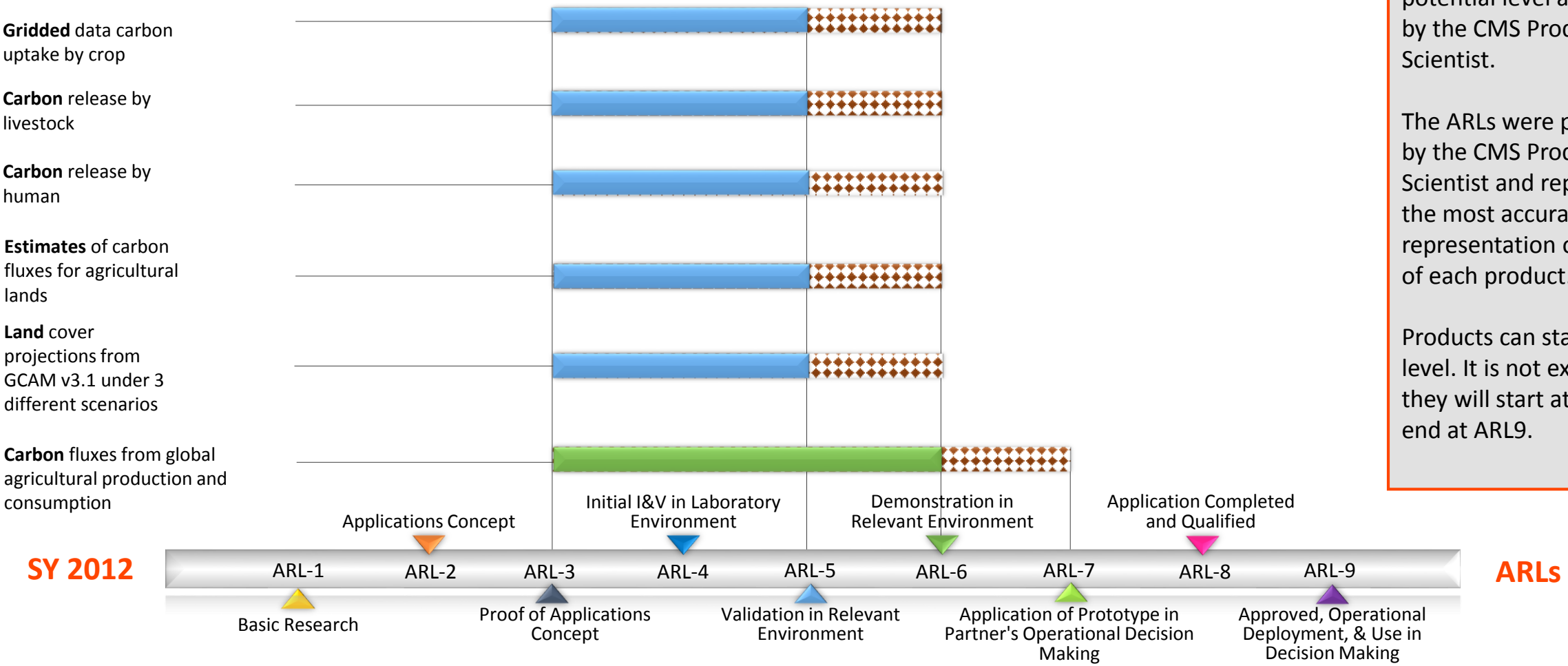
West-03 Products



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 2012 CMS PROJECTS

Project Group	Project Title
Andrews-02	North American Regional-Scale Flux Estimation and Observing System Design for the NASA Carbon Monitoring System
Balch-03	Coccolithophores of the Beaufort and Chukchi Seas: Harbingers of a polar biogeochemical province in transition?
Behrenfeld-01	Characterizing the Phytoplankton Component of Oceanic Particle Assemblages
Bowman-01	Continuation of the Carbon Monitoring System Flux Pilot Project
Cook-B-01	Improving Forest Biomass Mapping Accuracy with Optical-LiDAR Data and Hierarchical Bayesian Spatial Models
Dubayah-03	High Resolution Carbon Monitoring and Modeling: A CMS Phase 2 Study
French-04	Development of Regional Fire Emissions Products for NASA's Carbon Monitoring System using the Wildland Fire Emissions Information System
Healey-01	A Global Forest Biomass Inventory Based upon GLAS Lidar Data
Houghton-02	Spatially Explicit Sources and Sinks of Carbon from Deforestation, Reforestation, Growth and Degradation in the Tropics: Development of a Method and a 10 Year Data Set 2000-2010
Huntzinger-01	Reduction in Bottom-Up Land Surface CO2 Flux Uncertainty in NASA's Carbon Monitoring System Flux Project through Systematic Multi-Model Evaluation and Infrastructure Development
Jacob-01	Use of GOSAT, TES, and Suborbital Observations to Constrain North American Methane Emissions in the Carbon Monitoring System
Loboda-02	The Forest Disturbance Carbon Tracking System A CMS Phase 2 Study
Kennedy-01	Integrating and Expanding a Regional Carbon Monitoring System into the NASA CMS
Lohrenz-04	Development of Observational Products and Coupled Models of Land-Ocean-Atmospheric Fluxes in the Mississippi River Watershed and Gulf of Mexico in Support of Carbon Monitoring
Miller-J-01	In Situ CO2-Based Evaluation of the Carbon Monitoring System Flux Product
Pawson-01	GEOS-CARB: A Framework for Monitoring Carbon Concentrations and Fluxes
Saatchi-02	Prototyping MRV Systems Based on Systematic and Spatial Estimates of Carbon Stock and Stock Changes of Forestlands
Shuchman-01	Development of New Regional Carbon Monitoring Products for the Great Lakes Using Satellite Remote Sensing Data
Verdy-01	Towards a 4D-Var Approach for Estimation of Air-Sea Carbon Dioxide Fluxes
West-03	Estimating Global Inventory-Based Net Carbon Exchange from Agricultural Lands for Use in the NASA Flux Pilot Study