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HIGHWAY SAFETY AND MOTOR VEHICLES

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ONLINE REGISTRATION AND IDENTITY OPERATING NETWORK

Motorist Modernization

Motorist Modernization Advisory Board – Phase II Monthly Meeting
November 14, 2017
Neil Kirkman Building, Conference Room B-201
2900 Apalachee Parkway, Tallahassee Florida 32399
2-4 p.m., EST

Invitees	Representing
Stephen Boley	DHSMV
Jason Britt	DHSMV
Diane Buck	DHSMV
Jay Levenstein	DHSMV
Trisha Williams	DHSMV
Lisa Cullen	Florida Tax Collectors
Joe de la Viesca	Florida Tag Agency
Karyn Wrye	Cox Automotive
Jim Taylor	Auto Data Direct
Christie Utt	Legal

Agenda

- Roll Call
- Welcome & Introductions
- Overview of the Motorist Modernization Project
- Sunshine Law Review
- Advisory Board Purpose
- Approval of the Advisory Board Charter
- Motorist Modernization Requirements Gathering Process
- MM Phase II Project Overview and System Functionality
- Comments and Questions
- Wrap Up / Next Steps
- Adjourn

Motorist Modernization Program (Phase II)

State of Florida Department of Highway Safety and Motor Vehicles (DHSMV)

Independent verification and validation (IV&V)

Project overview 14 November 2017

Building a better working world

Topics for discussion

- Background
- Out-of-scope items
- IV&V project organization
- Overall approach to providing IV&V services
- IV&V assessment framework
- Baseline assessment
- Monthly assessment
- Focused assessment
- General approach for collecting and analyzing project information
- Traceability between collected data and analysis results
- IV&V analysis report structure
- IV&V project deliverables
- IV&V meetings and communication
- Supporting tools and enablers

Background

- DHSMV intends to re-engineer all of its motorist services systems in order to better serve and support its customers.
- DHSMV has contracted with Ernst & Young (EY) to provide independent verification and validation (IV&V) services to monitor and evaluate critical aspects of the project as an unbiased, independent reviewer reporting directly to the Executive Steering Committee.
  - Review and evaluate all aspects of the projects that will comprise Phase II of the Motorist Modernization (MM) Program.
  - Provide analysis, feedback, and suggested improvements to support the quality and success of the MM Program.
  - Conduct verification and validation regarding the quality of the work products produced by the Department and any selected vendor.
  - Conduct baseline and monthly assessments to provide evaluations and assessments of the MM Program.

Out-of-scope items

- Performance of any code reviews or system testing.
- Security review and penetration testing.
- Issuance of an opinion or other form of assurance, as defined by the American Institute of Certified Public Accountants (AICPA), on any financial information related to the project.
- The rendering of an attestation or assurance report or opinion, including an audit, review or examination of financial statements in accordance with generally accepted auditing standards, an examination of prospective financial statements in accordance with applicable professional standards, or a review to detect fraud or illegal acts. None of the services or any reports will constitute any legal opinion or advice.

IV&V project organization

Florida Department of Highway Safety and Motor Vehicles

Ken Thomas
Florida Partner

Jeff Sopshin
Engagement Partner

Dawn Woods
Tallahassee Office Leader

Gary Didio
IV&V Project Manager

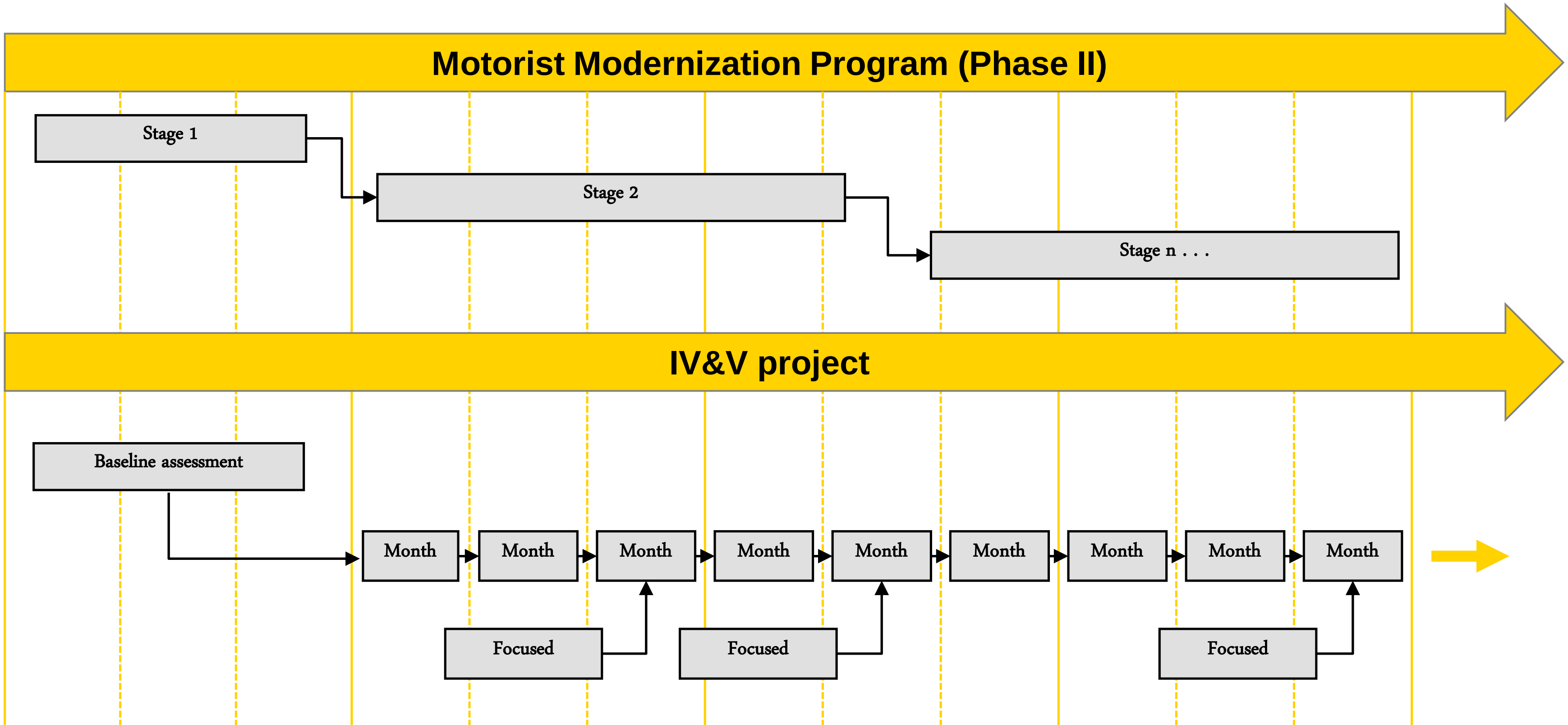
IV&V Team

Alyene Calvo
Chris Wade
Colin Stephens

IV&V SMRs

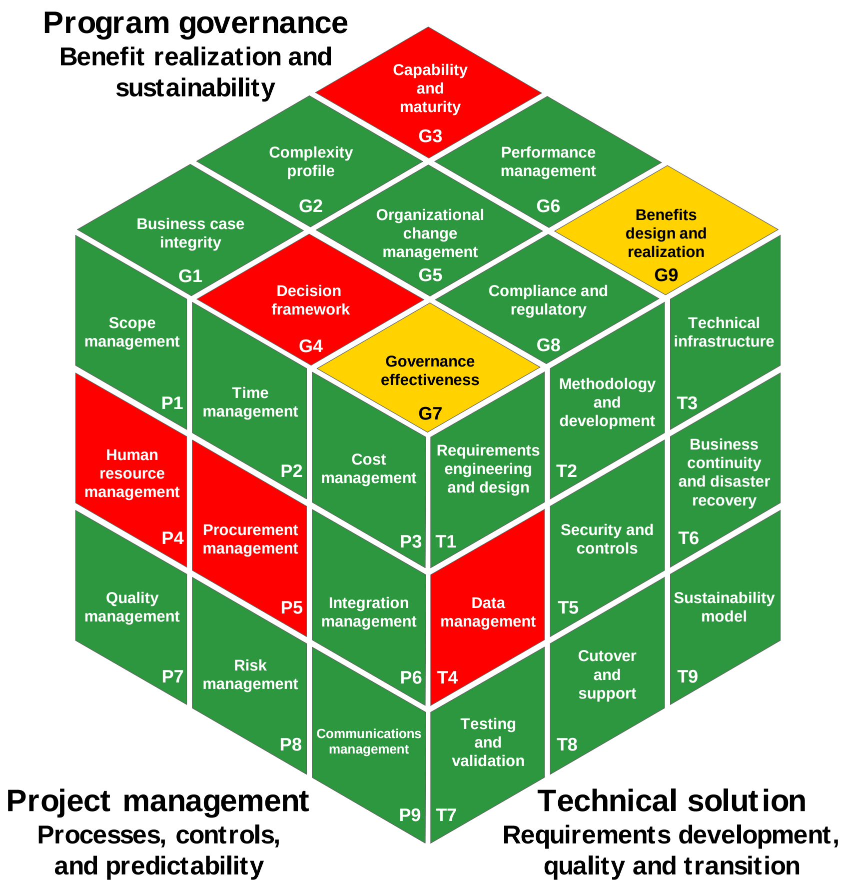
Brian Woods
Joe Horgan
Others as required

Overall approach to providing IV&V services



Proactive formal and informal communications on identified risks – No surprises!

IV&V assessment framework for identifying program risks

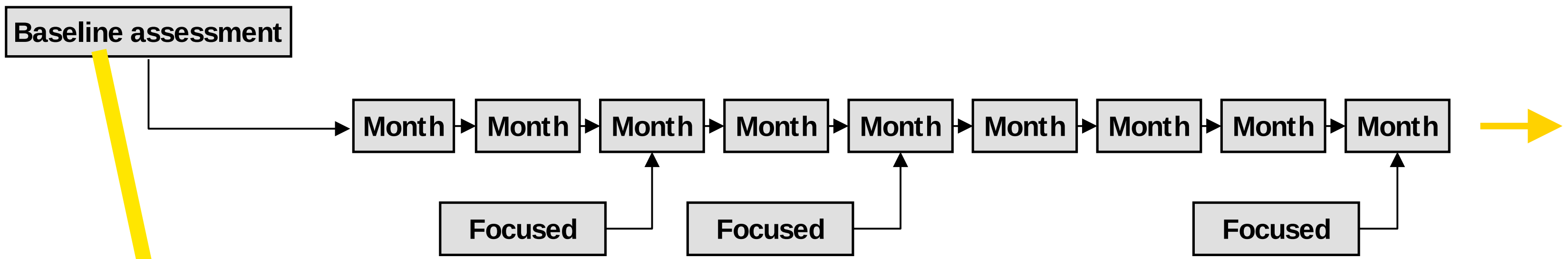


The ratings for each area are based on the following criteria:

- Indicates that the area being assessed has critical issues that will result in significant risk to the project most likely resulting in either the inability to achieve the outcomes, inability to meet the projected schedule, or a significant cost over-run. Requires immediate action.
- Indicates that the area being assessed has issues that need to be resolved; inefficiencies exist. Current process/method can be used with refinement.
- Indicates that the area being assessed did not have significant issues to report. Continued monitoring should be performed.
- Indicates that the area being assessed has incomplete information available for a conclusive finding or is not applicable.

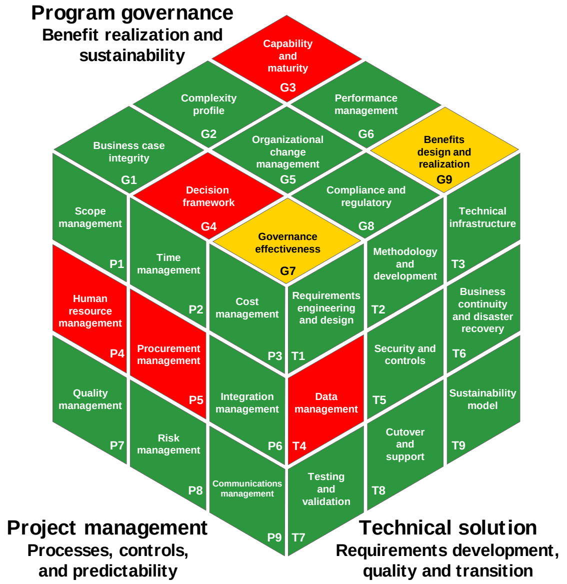
The facet colors are for illustration only and are not representative of the Motorist Modernization Program.

The baseline assessment provides an initial assessment of the MM Program (Phase II)



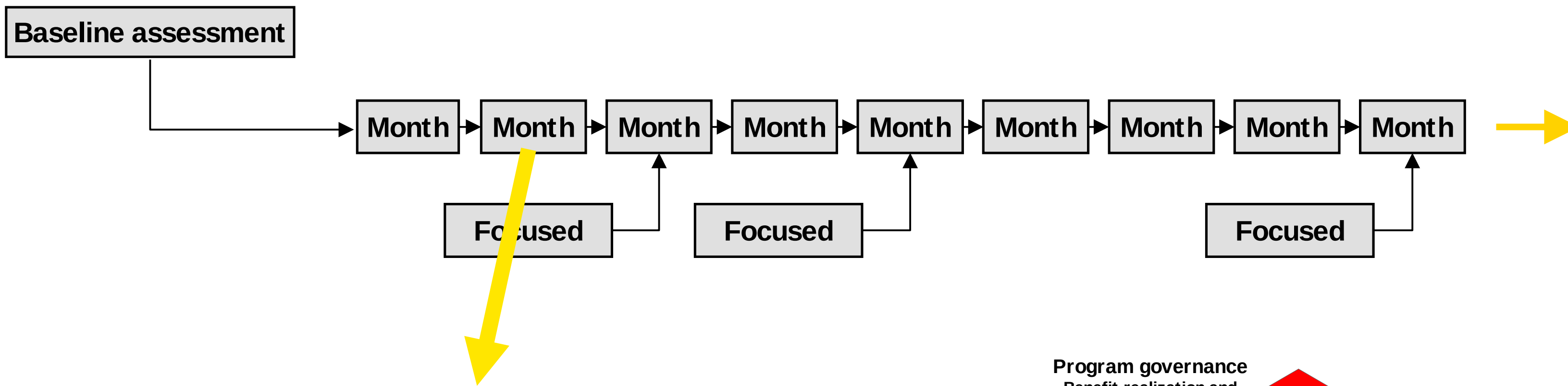
Baseline Assessment Report (BAR)

- Documents an initial assessment of the MM Program (Phase II) within the program governance, project management, and technical solution dimensions against which the project progress and project deliverables can be measured.
- Also used to determine whether the key project management components are in place to manage the MM Program (Phase II).



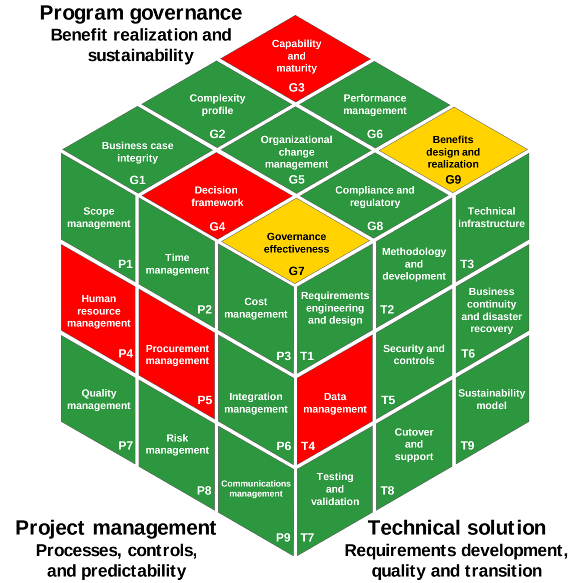
EY

The monthly assessment provides ongoing monitoring of the MM Program (Phase II)

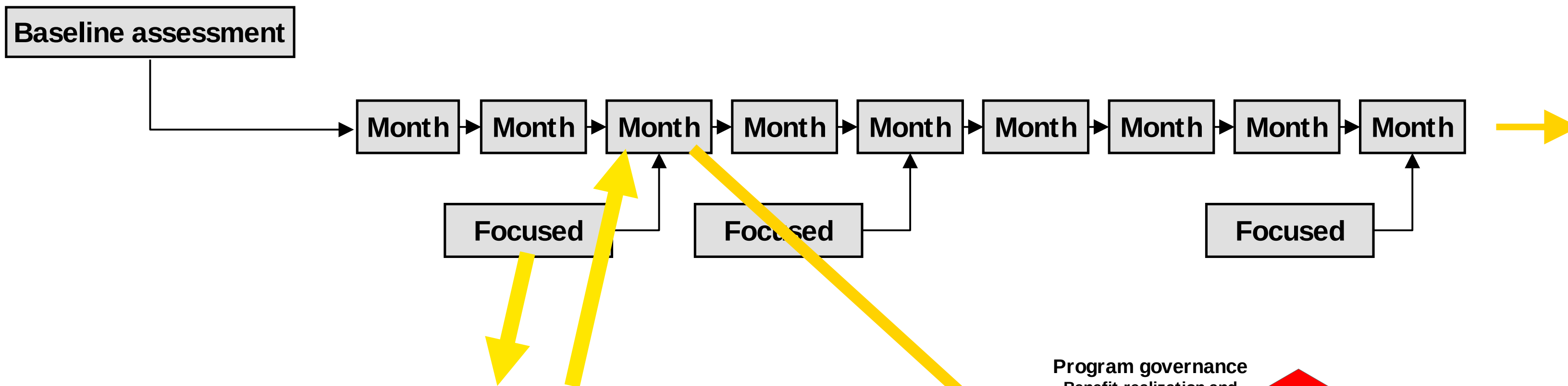


Monthly Assessment Report (MAR)

- Provides a summary of the findings and recommendations resulting from ongoing monitoring activities.
- Also summarizes the assessment of the project organization and project management activities as well as describes how each key project characteristic has evolved since the last report (baseline or prior MAR).

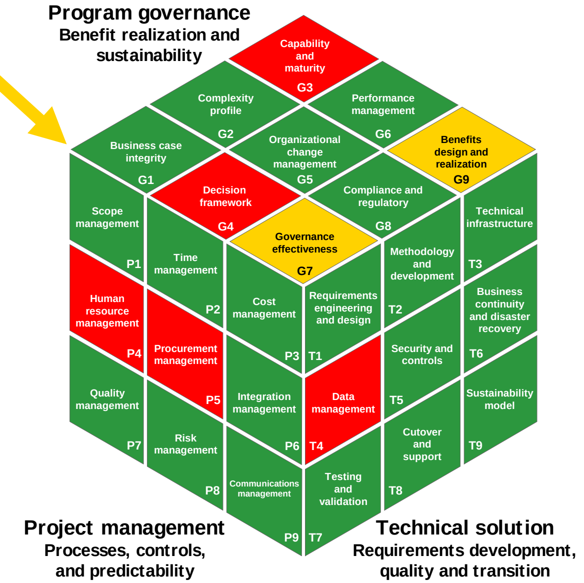


The focused assessment provides deep-dive analysis of key MM Program (Phase II) deliverables



Deliverable Review Report (DRR)

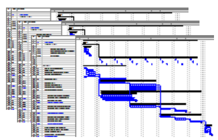
- Provides an assessment of deliverables being reviewed and/or submitted during the reporting time period.
- Specific areas include: accuracy, completeness, adherence to contractual and functional requirements, feasibility, consistency with overall project and other deliverables, deficiencies, errors and omissions, recommended improvements and remediation



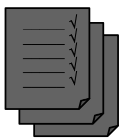
Our general approach involves collecting and analyzing project data using our framework and tools

Our fact-based approach utilizes proprietary EY tools coupled with advanced analytical simulations, frameworks and other enablers that provide a quantitative basis for conclusions

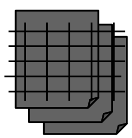
Project plans



Specifications and design documents



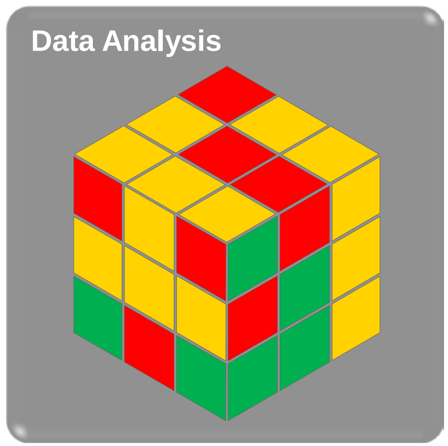
Records and reports



Project team interviews

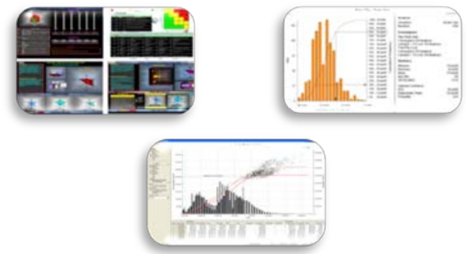
Stakeholder interviews

- ✓ Forward looking
- ✓ Encompasses the entire lifecycle,
- ✓ Identifies issues prior to the onset of symptoms

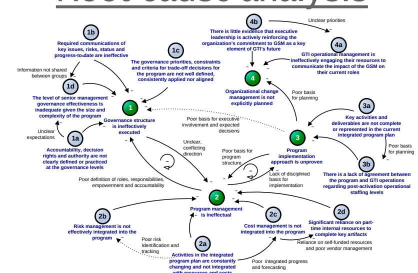


- ✓ Adapted based on complexity
- ✓ Considers the interrelated dimensions of cost, schedule, scope, quality, organization and benefit realization
- ✓ Predicts likely program outcomes
- ✓ Determines what corrective actions will yield the greatest long term benefits

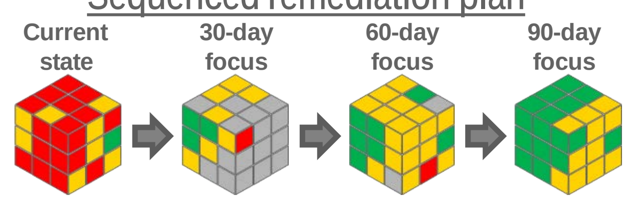
Quantified predictive impact on risks



Root-cause analysis

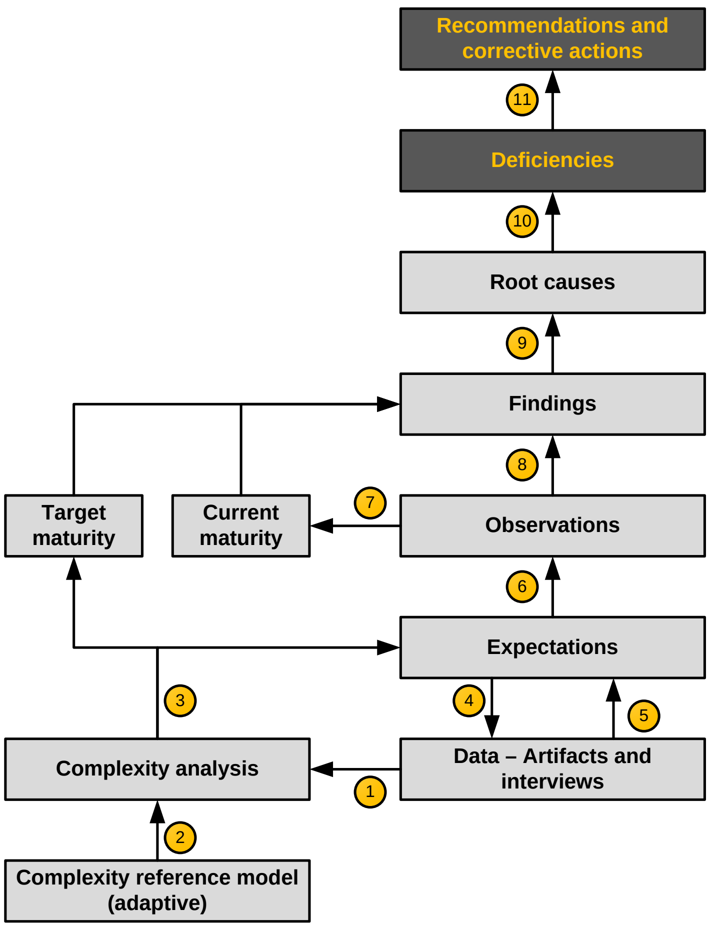


Sequenced remediation plan



EY

There is complete traceability between collected data and analysis results



- Collect and review initial set of project artifacts to determine overall project complexity (steps 1 and 2).
- Project complexity determines expectation and target maturity to appropriately manage risk (step 3).
- Expectations determine artifacts to be collected and interviews to be conducted (steps 4 and 5).
- Observations are made based on collected data and expectations (step 6).
- Observations are used to determine the current maturity for all facets evaluated (step 7).
- Findings are derived from observations (step 8).
- Root cause analysis determines key items (positive and negative) driving overall project performance (step 9).
- Deficiencies derived from negative root causes (step 10).
- Recommendations and corrective actions developed for identified deficiencies (step 11).

Baseline and monthly reports include all analysis results and supporting information

Main body

Abstract	Single-page overview including background, results, implications and recommendations
Executive summary	Major project characteristics, risks, findings, and recommendations for addressing deficiencies
Introduction	Brief overview of the client project and the assessment report
Findings and recommendations	Findings, deficiencies, and associated suggestions for correction

Appendices

Project assessment	Detailed results of conducting the assessment based on the assessment framework
Root cause analysis	Contains the results of the root cause analysis based on the overall project assessment
Detailed reviews	Supporting reviews including project milestones, budget, maturity, and project schedule

IV&V project deliverables

Category	Deliverable	Frequency
IV&V project management	Kickoff presentation	During IV&V project initiation
	Project charter	
	Project management plan (PMP)	
	Phase II baseline schedule	
	Status reports	Weekly
	Meeting minutes	After each formal IV&V project meeting
IV&V assessment reports	Baseline assessment report (BAR)	Once
	Monthly assessment report (MAR)	Monthly
	Deliverable review reports	Various

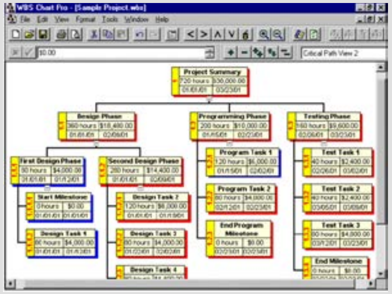
IV&V meetings and communication

IV&V project meetings and communications		
Item	Description	Frequency
Informal communications	▸ Ongoing, real-time and strategic advice as well as thought leadership throughout the execution of the IV&V project.	▸ Ongoing
IV&V project weekly status report	▸ Identifies the current status of the IV&V project, including activities, issues, risks, work product status, action items and an updated schedule, if necessary.	▸ Weekly
IV&V project status meeting	▸ Review status, issues and risks, potential delays, new requirements and overall IV&V project satisfaction.	▸ Weekly
Monthly meetings	▸ Meet with the Department's Governance Boards and Executive Steering Committee monthly to discuss findings, opportunities for improvement, and recommendations.	▸ Monthly ▸ Finalized and agreed to by the Department and EY upon contract award
Interviews	▸ Conduct interviews with project managers and staff members of the user and stakeholder groups, application developers, and management on a regularly scheduled basis.	▸ Finalized and agreed to by the Department and EY upon contract award
Critical project events	▸ Attend and present at critical project events, as defined by the Department's Contract Manager.	▸ Finalized and agreed to by the Department and EY upon contract award
Meeting minutes	▸ Document any formal meeting conducted and includes attendees, invitees not present, information shared during the meeting, action items with due dates and owners, and decisions required.	▸ Provided within three (3) business days upon completion of any formal meeting

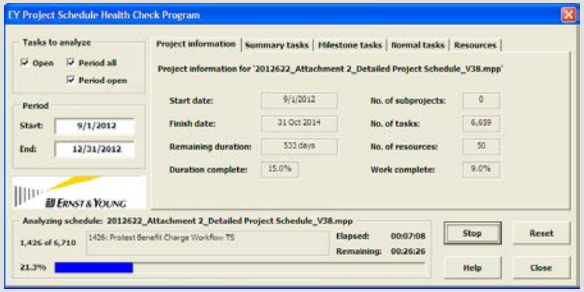
IV&V meetings and communication (continued)

IV&V project meetings and communications		
Item	**Description**	**Frequency**
Formal presentations	► Provide public presentation(s) when requested by the Department's Contract Manager.	► As requested ► Finalized and agreed to by the Department and EY upon contract award
Exception report	► An exception report is generated immediately when it is determined that circumstances exist that put the scope, budget, schedule or viability of the project at significant risk. ► These circumstances may involve issues of project structure, governance or management.	► As required
IV&V analysis reports	► Formal reports provided to the Department. ► Provide analysis, feedback, and suggested improvements to the Department's Executive Steering Committee, Governance Boards, and other stakeholders to confirm the quality and success of the Program. ► Conduct verification and validation regarding the quality of the work products (deliverables) produced by the Department and any selected vendors related to Phase II of the Program to confirm they meet the expectations of the Department and its customers, as well as State of Florida requirements.	► Various ► Finalized and agreed to by the Department and EY upon contract award

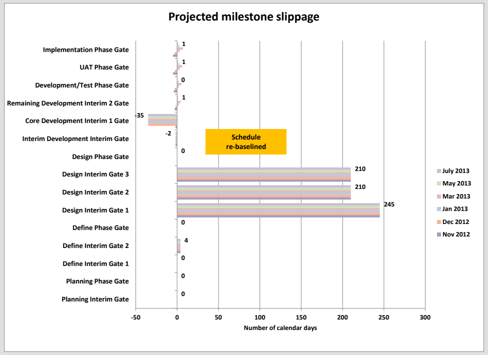
Supporting tools and enablers



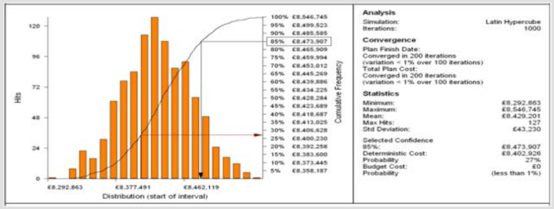
WBS analysis



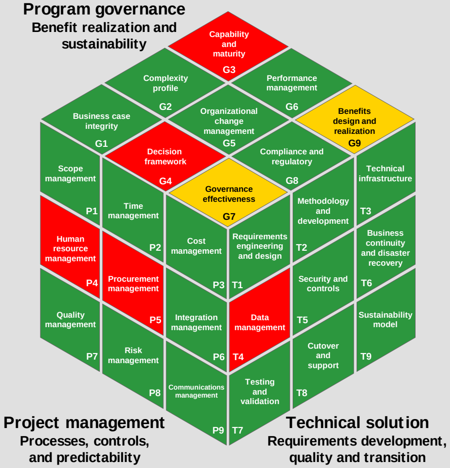
EY Project Schedule Analysis Program



Project milestone analysis

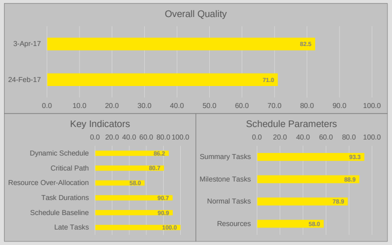


Quantitative schedule and cost confidence simulation

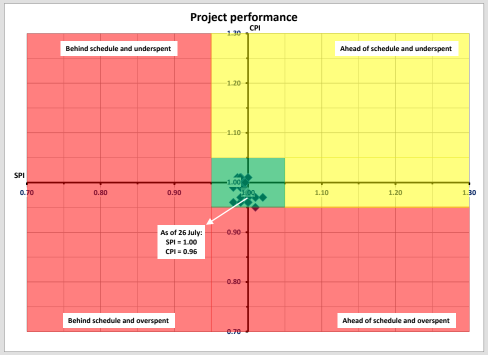


The “cube”

IV&V assessment framework



Project schedule quality



Project performance metrics analysis

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DEPARTMENT OF HIGHWAY SAFETY AND MOTOR VEHICLES

REQUIREMENTS GATHERING

PROCESS OVERVIEW

September 22, 2017

Table of Contents

Document Purpose

The purpose of this document is to describe the requirements gathering process used by the Department to re-engineer existing legacy systems.

Overview of Requirements Gathering Process

The process is designed to ensure required functionality is included in the system. The steps within the process are as follows:

- Document existing functionality and business rules.
- Document requested functionality.
- Perform gap analysis, business process and policy review.
- Categorize functionality.
- Write software requirements.
- Create application mockups.
- Determine effort.
- Perform stakeholder review.
- Validate and approve requirements.
- Prioritize requirements and determine milestones.
- Finalize acceptance criteria and business rules.

To support this effort, the Department is utilizing Blueprint, which is a requirements gathering tool. Blueprint allows business analysts to create a central repository for all system requirements, business processes and business rules, in addition to generating requirements specifications. The Blueprint repository contains the following:

- Business rules for software requirements.
- Supporting technical documentation.
- References to federal and state rules and regulations.
- Internal policies and procedures.
- Business processes and workflow diagrams.
- Glossary of terms and acronyms.

Blueprint will provide the necessary traceability (i.e., a specific requirement was created because of a specific business rule, federal or state law) and system documentation for the motorist systems' development efforts.

Document Existing Functionality and Business Rules

Since most of the functionality of the current system being re-engineered needs to exist in the new system, and the current system has not been fully documented, staff will reverse engineer the old system by going through the source code and documenting functionality. Reverse engineering the existing source code ensures required functionality and rules are not overlooked when generating the new requirements. During this process, the existing business rules are also documented for review and approval by the Division of Motorist Services.

Document Requested Functionality

Requests for new functionality and identification of problems within the existing system were gathered through extensive stakeholder outreach via meetings, workshops and surveys. Feedback has been elicited from both internal and external stakeholders in order to collect as much input as possible.

Gap Analysis, Business Process and Policy Review

A gap analysis is performed on the old functionality and any new requested functionality. The Division of Motorist Services is also tasked with providing feedback on possible improvements to current business rules, in addition to determining whether or not policies and processes are still applicable, or if they can be improved upon. Any process improvements are documented.

Categorize Functionality

As the system owner, the Division of Motorist Services is tasked with categorizing the existing and proposed functionality as either “Planned,” “Not Planned” or “Deferred.” Functionality categorized as “Planned” indicates the functionality needs to exist in the new system. Functionality categorized as “Not Planned,” indicates the functionality will not be included in the new system. Functionality categorized as “Deferred,” indicates the request is currently out of scope and will be addressed in the future. In addition to categorizing the functionality, comments are also added explaining the reasoning behind the categorization. This information is distributed to various stakeholders in the effort to create a transparent process.

Write Software Requirements

Existing and proposed functionality categorized as “Planned,” are converted into functional requirements (User Stories), which will be provided to the developers through Blueprint. Each User Story contains three distinct pieces of information.

1) Role – Who will be performing the function?
    a. e.g., Driver License examiner.
2) Function – What functions does the system needs to perform
    a. e.g., Can take a photograph.
3) Benefit – Why the function is needed.
    a. e.g., To comply with DL issuance requirements.

In addition, each User Story will include “Acceptance Criteria.” Acceptance Criteria need to be met prior to the developer stating the requirement has been completed. Acceptance Criteria is generally entered when the requirement is created, but will often be fine-tuned throughout the development process.

Determine Effort

Requirements are presented to the software developers during the course of several meetings and the developers are tasked with estimating the anticipated duration for coding. This time estimate is used for resource planning and refining the project schedule.

Create Application Mockups

Screen mockups and wire framing are created from the requirements to demonstrate how the application will look and what the system workflow will be.

Stakeholder Review

The application design is presented to various stakeholders, including the Division of Motorist Services, as an opportunity to collect feedback and any necessary changes.

Validate and Approve Requirements

Once feedback from stakeholders has been collected, and requested changes are considered, the requirements are sent to Motorist Services for approval.

Prioritize Requirements and Determine Milestones

Approved requirements are prioritized by Motorist Services and technical staff in an effort which makes sense from both a technical and business perspective. Requirements are then broken up into Milestones, which will be delivered to Motorist Services staff for User Acceptance testing.

Finalize Acceptance Criteria and Business Rules

Acceptance criteria and business rules for the functional requirements are finalized and fine-tuned by business analysts and Motorist Services staff in the order the requirements are prioritized. This fine-tuning is spread out over the life of the system development lifecycle because of the amount time and number of meetings required to finalize and document these details.

Motorist Modernization Glossary

- Approved
  - Development and/or testing are approved to work on the story and plans to complete the tasks added in the sprint.
- Burndown
  - Sprint tracking tool that shows the total original estimated hours verses the remaining hours measured against the sprint timeline to graphically depict the progress of the team during the current sprint.
- Capacity
  - Calculation of the hours of available work by task type for a sprint. Typically calculated at 80% of the day or 6-hour work days per person.
- Committed
  - Development and testing can both be completed in the sprint based on the capacity each group commits and the level of effort for the associated stories.
  - Development stories completed in a previous sprint, which only require testing and the testers agree to testing the stories during the sprint.
- Completed Work
  - The hours of work completed on the task.
- Dev Status
  - Possible statuses –
    - Not Started
      - Development has not yet started.
    - Dev Started
      - Development has begun.
    - Dev Done
      - QA can start testing. The developers have already completed deployment to Alpha and the functional testing tasks are complete.
      - QA testing should not start before a story is marked Dev Done and SEU testing (excluding building test cases) should not start before a story is marked Ready to Test.
      - The developer who completed the functional testing is responsible for marking the story Dev Done.
    - Ready to Test
      - SEU can start testing. QA has already completed testing and the application has been deployed to Beta and verified.
    - Testing in Progress
    - Testing Blocked
    - Testing Complete
      - Blocked Task

            - Task that is not yet assigned due to dependencies, or an assigned task that cannot be worked to completion due to dependencies, whether in development or testing. A blocked task is not necessarily an impediment.
                - Bug
                    - Error in program code that causes it to produce an incorrect or unexpected result based on the requirement.
                - Impediment
                    - An obstacle to development or testing task completion that cannot be resolved within a workgroup (Developers, Testers or Business Analysts) within a project task.
        - Done
            - The story or functionality has been developed and tested and received product owner sign off.

- Functionality/Stories
    - A high-level definition of a requirement, capturing the who, what and why in a simple, concise way. Business rules are linked to stories and a group of stories make up a functional area.
- Issues
    - A defined barrier or obstacle to project work, which is currently happening and may impact forward progress immediately or in the future. An issue can also be a risk, which cannot be managed through risk mitigation approach.
- Milestone
    - Defined period to complete a defined set of features or functionalities.
- Original Estimate
    - The original estimate in hours of work to complete the task.
- Remaining Work
    - The estimate in hours for the work remaining to complete the task.
- Risks
    - An uncertain future event, which may have a negative impact on the project should it occur.
- Sprint
    - Three-week Agile development cycle as defined by Motorist Modernization.
- Task
    - Unit of work.
- UAT
    - User Acceptance Test. Testing performed by user groups to validate application requirements have been satisfied.