MM Agile: SCRUM + Automotive SPICE

INDEX

- Introduction
- Why MM Agile Approach?
- How did we align classical and agile approach?
- How do we implement SCRUM?
- How do we take advantage?

INTRODUCTION

- Methodology team and SW Manager decided to find a different way for managing the current projects and the result was the application of SCRUM + Automotive Spice for SW Development.

- The exposition will present how we applied the SCRUM Framework, whit its roles, artifacts and events in our software development context and how we make possible the interaction between the classical approach of project management requested by our customers and the agile project management.

INTRODUCTION

- What we have always have in mind and it is important to clarify is that:

- Process Maturity Models like Automotive Spice, CMMI and others reside at the **WHAT** level (the goals) while Agile approaches like SCRUM, Kanban rather are at the **HOW** level (the way to the goals).

WHY MM AGILE APPROACH?

It was just part of our working days!

Releases delivery iteratively and incrementally

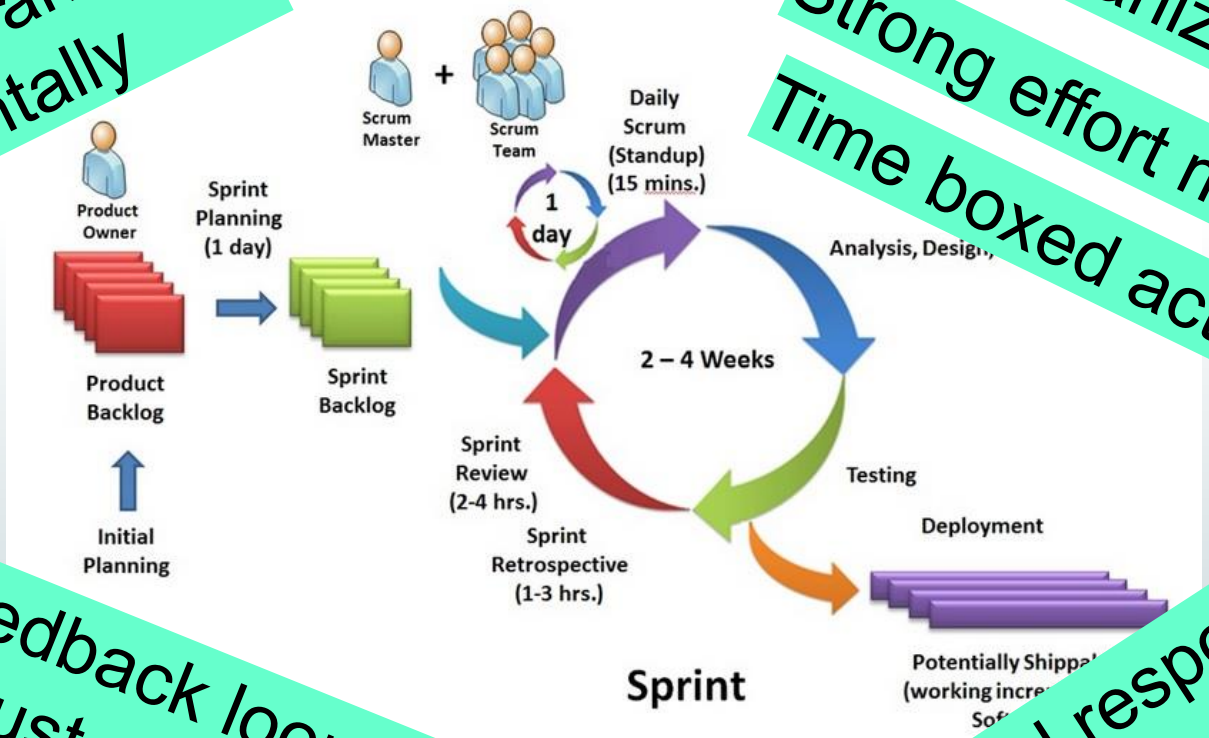
Self-organizing teams

Strong effort monitoring

Time boxed activities

Fast feedback loops for the customer and teams.

Rapid response to changes



WHY MM AGILE APPROACH?

Well alignement between MM Roles and SCRUM Roles

Product Owner (Software Project Leader)

- Clearly expresses Product Backlog items;
- Order the items in the Product Backlog to best achieve goals and missions;
- Ensures that the Product Backlog is clear to all;
- Ensures the Development Team understands items in the Product Backlog.

Development Team (Domain Team)

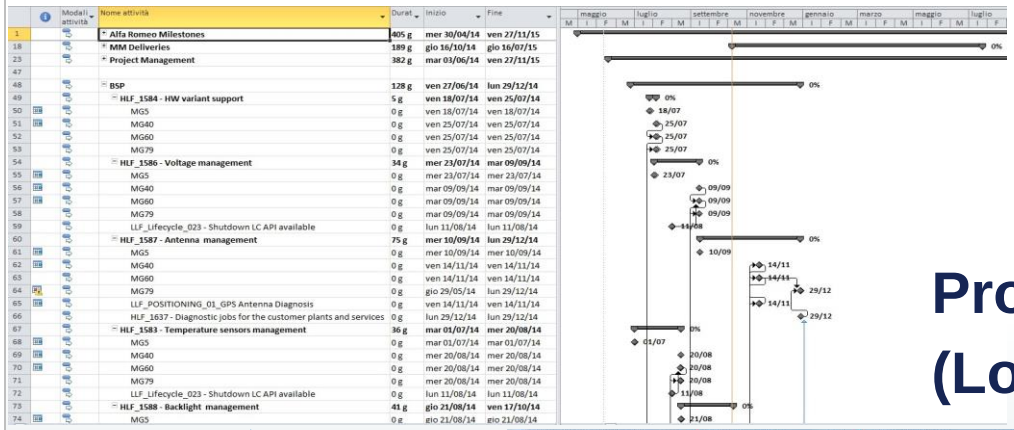
- Are structured and empowered to organize and manage their own work.
- Are cross-functional, with all of the skills necessary to create a product Increment
- Define how to turn Product Backlog items into Increments
- Are responsible for the Sprint Backlog

Scrum Master (Methodology Engineer & Domain Leader)

- Ensures that the Scrum Team adheres to Scrum theory, practices, and rules
- Helps the Development Team to create high-value products;
- Removes impediments to the Development Team's progress;
- Facilitates Scrum events as requested or needed.

HOW DID WE ALIGN CLASSICAL AND AGILE APPROACH?

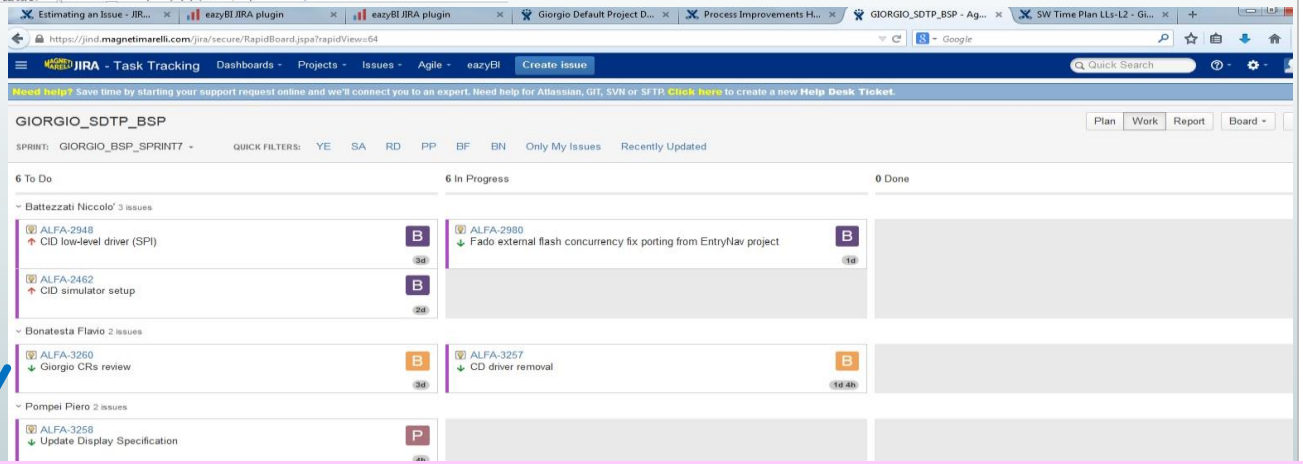
Project SW Time Plan (High Level)



Customer Milestones

Project SW Time Plan SCRUM (Low Level)

HLF Maturity Grades



HLF is a group of System Requirements that provides clear visibility of the product status implementation.

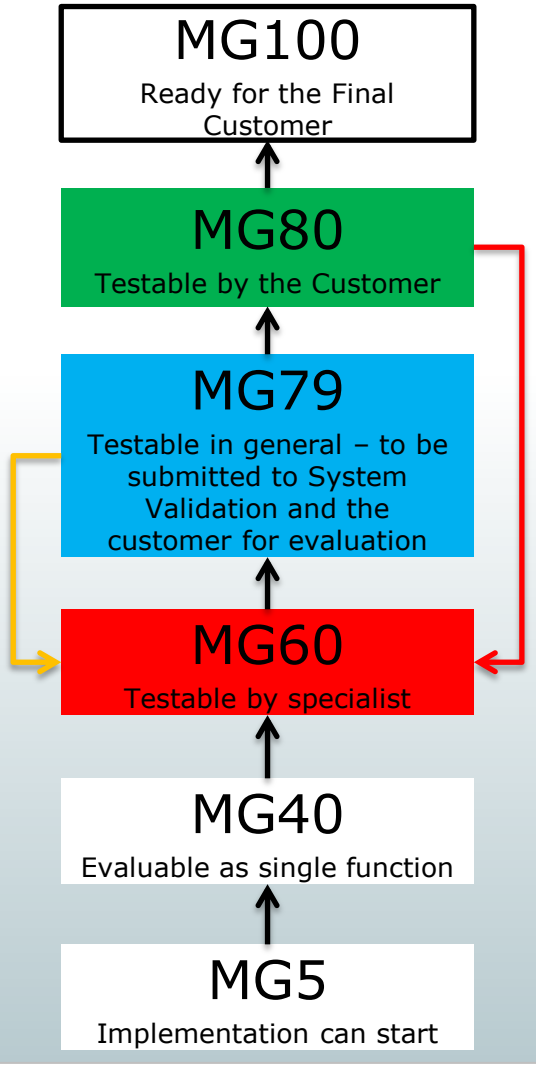
HOW DID WE ALIGN CLASSICAL AND AGILE APPROACH?

If no issues or minor issues tolerated by the customer

If major regression is highlited from customer test and is not fixed in the next available delivery

If not tolerable issues highlited during meeting

HLF Maturity Grades

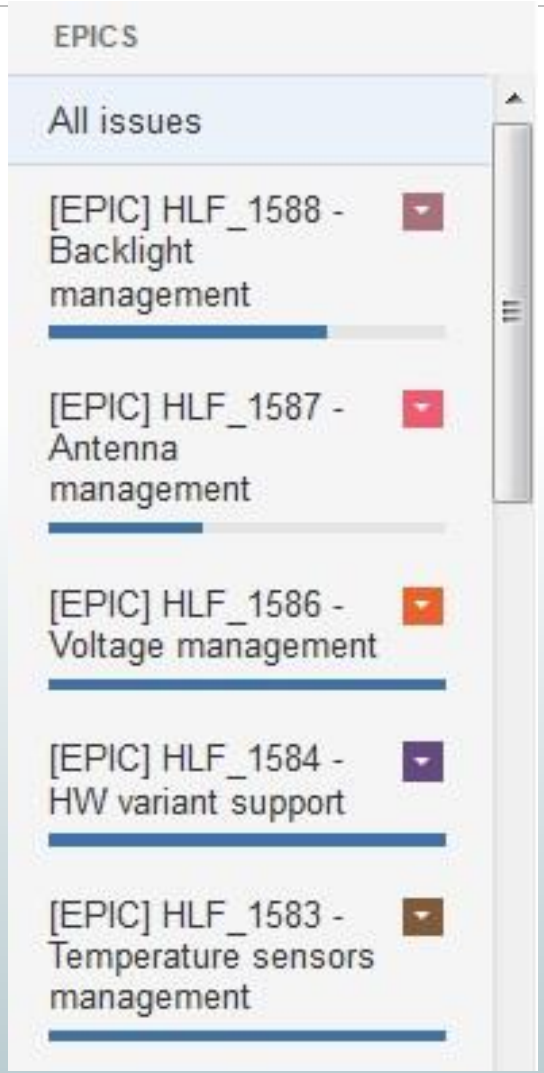


Project SW Time Plan (High Level)

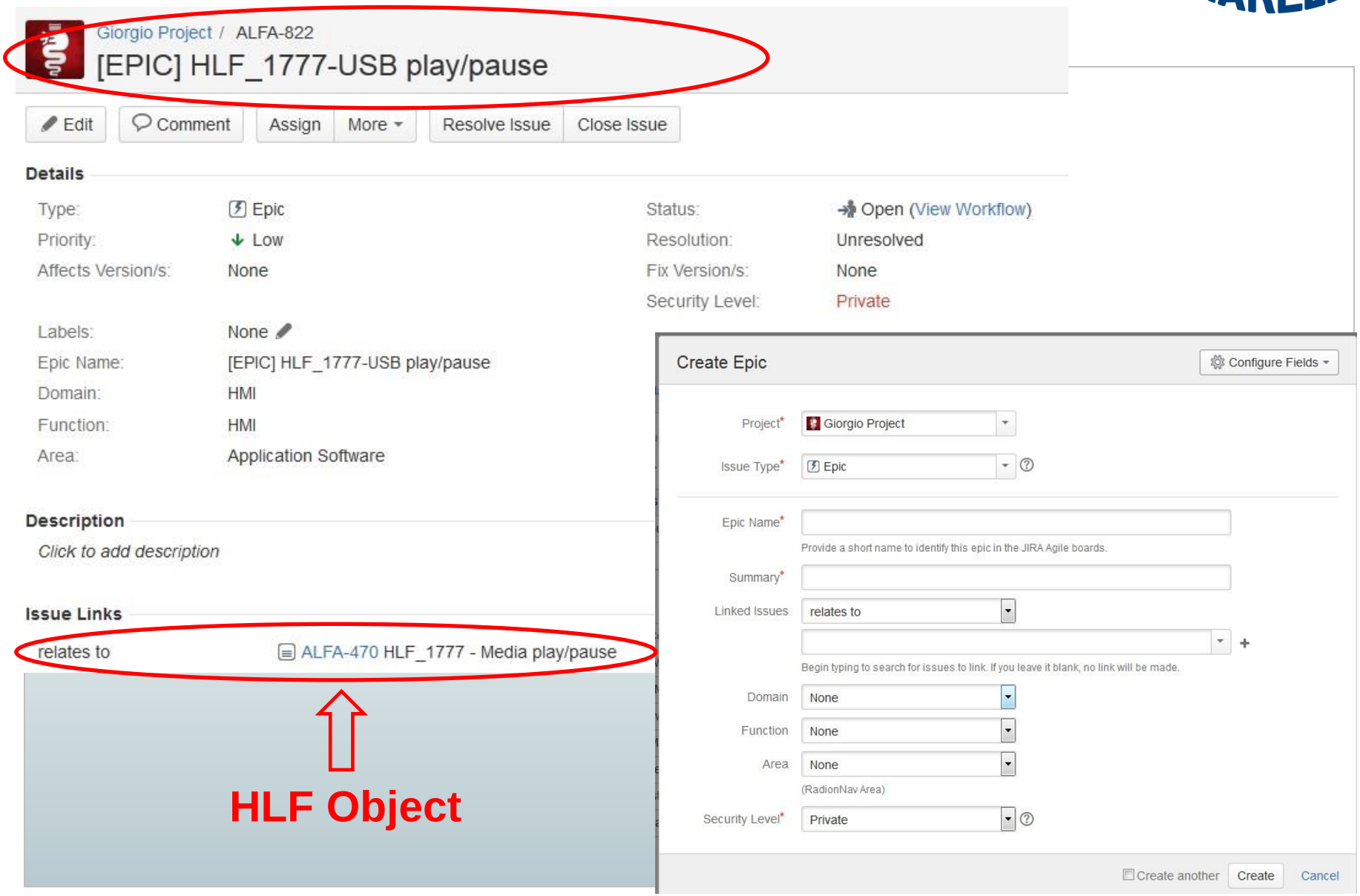
- **MG5:** MG5 planned date
- **MG40:** MG40 planned date
- **MG60:** MG60 planned date
- **MG79:** MG79 planned date
- **MG80:** MG80 planned date

HOW DO WE IMPLEMENT SCRUM?

Jira type <<EPIC>> is linked to a single HLF



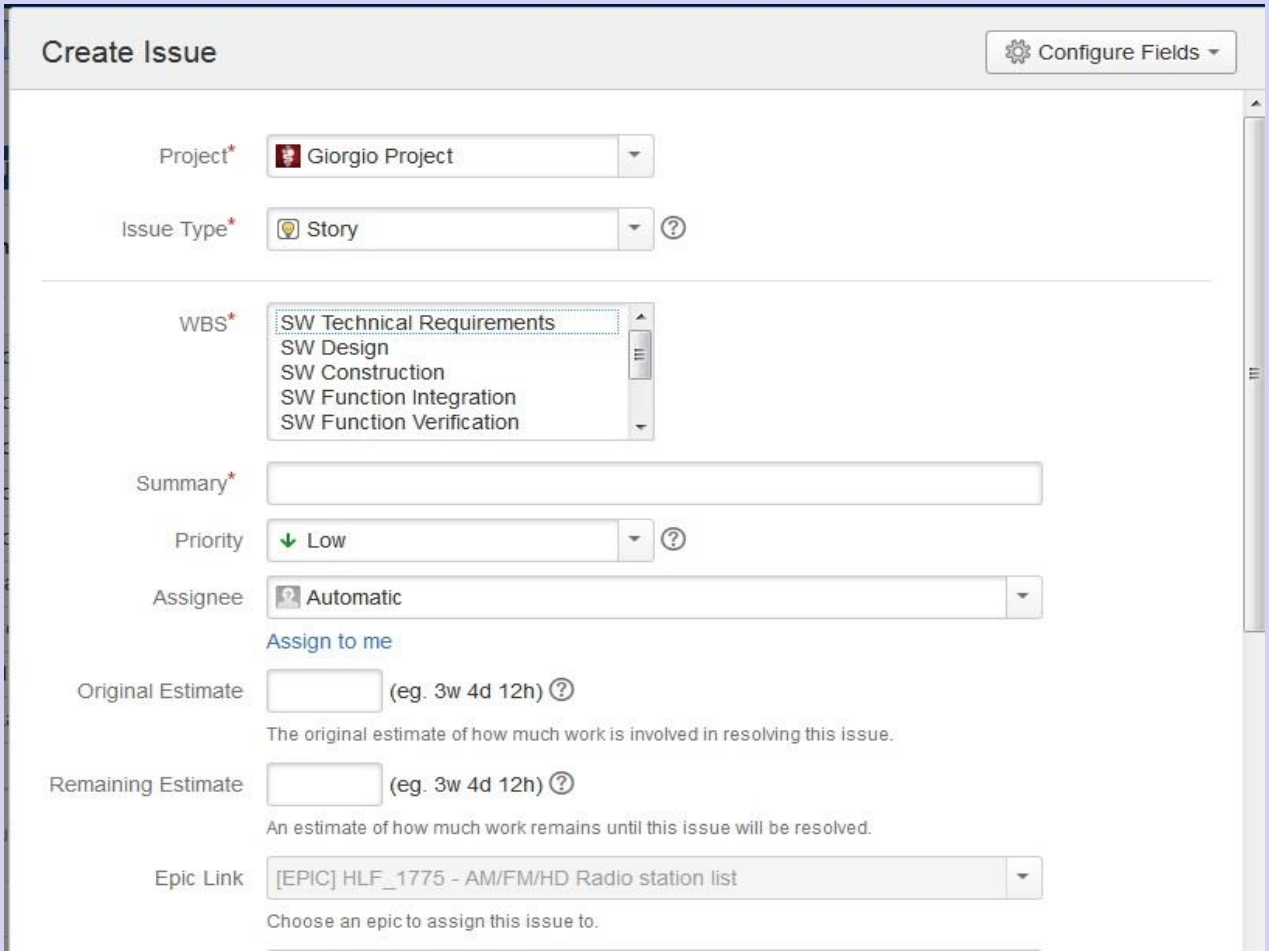
HOW DO WE IMPLEMENT SCRUM?



HOW DO WE IMPLEMENT SCRUM?

Product Backlog

- The HLF (EPIC) is composed of internal «touchable» products.
- The task to perform in the **Story** should be selected from the Standard **SW WBS**.



HOW DO WE IMPLEMENT SCRUM?

Task List (SW WBS):

- SW Technical Requirements
- SW Technical Requirements\Review
- SW Design
- SW Design\ High Level
- SW Design| Detail Level
- SW Design\ Review
- SW Construction
- SW Construction\ Unit Testing, Review, Automatic Review
- SW Integration
- SW Integration\ Review, SW Integration Testing
- SW Integration Testing\ Review, SW Integration Testing
- SW Testing\ Review, SW Testing
- Support\ Defect Management
- Support\ Change Management
- Support\ Project Training
- Support\ Configuration Management
- Support\ SYS-SW Quality Assurance
- SW Function Planning & Scheduling
- SW Function Monitoring & Control
- SW Function Supplier Management

BSP

Created by Rocio Cecilia Rojas, last modified by Zaniratti Eugenia on Oct 24, 2014

SW WBS	Official Deliverables	Acronym	Owner	Project Availability	Repository	Path
SW Function Planning and Scheduling	SW Function Development Plan	SFDP	Function Leader Feature Reference	NO	Confluence	Included in: Software Development Plan
	SW Function Time Plan L3	SDTP	Function Leader Feature Reference	YES	JIRA	GIORGIO SW Detail Time Plan L3 BSP SCRUM
	Sizing		Feature Reference Function Architect	YES	JIRA	GIORGIO SW Detail Time Plan L3 BSP SCRUM
	SW Function Workload Plan		Function Leader Feature Reference	YES	JIRA	GIORGIO SW Detail Time Plan L3 BSP SCRUM
	SW Function Verification & Testing Plan	SVTP	Function Leader Feature Reference			
SW Function Monitoring and Control	SW Function Progress Report		Function Leader Feature Reference	YES	Confluence	BSP SW Function Progress Report
	SW Function Time Tracking		Function Leader Feature Reference	YES	JIRA	GIORGIO SW Detail Time Plan L3 BSP SCRUM

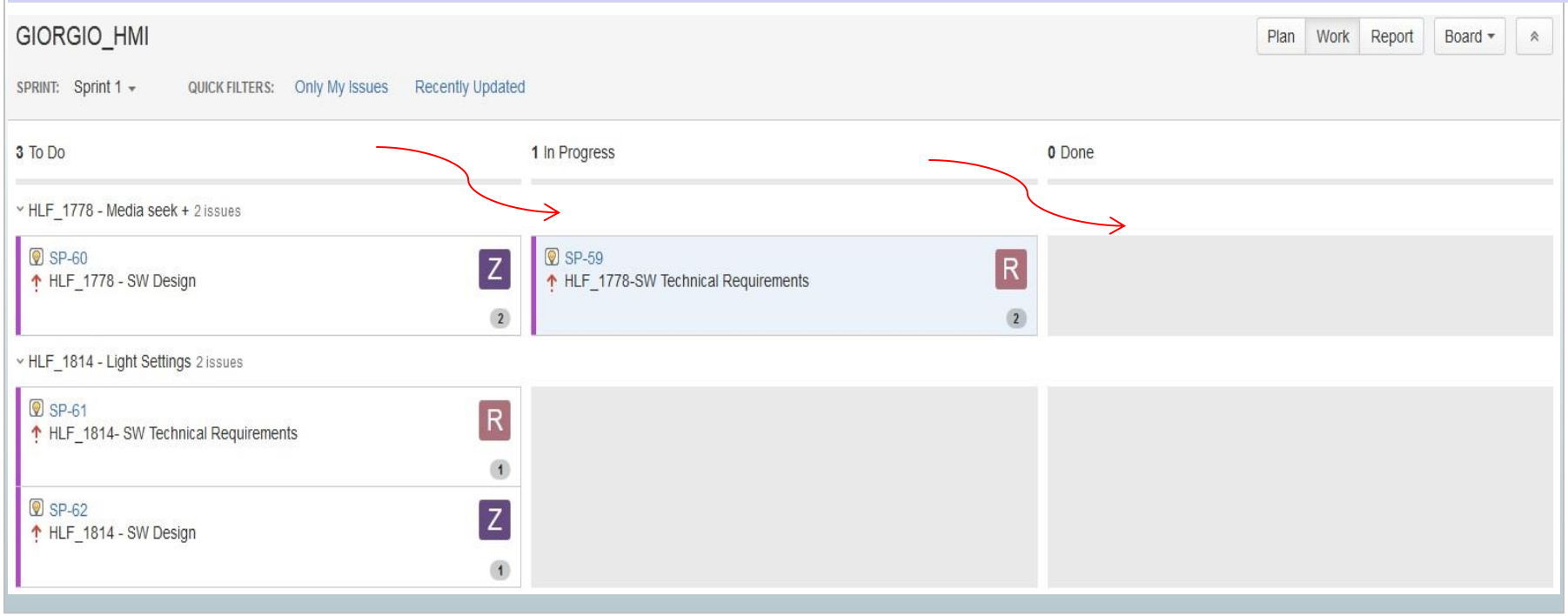
HOW DO WE IMPLEMENT SCRUM?

Sprint Backlog

The Sprint Backlog is a forecast by the Development Team about what functionality will be in the next Increment and the work needed to deliver that functionality into a “Done” Increment.

A new Sprint starts immediately after the conclusion of the previous Sprint.

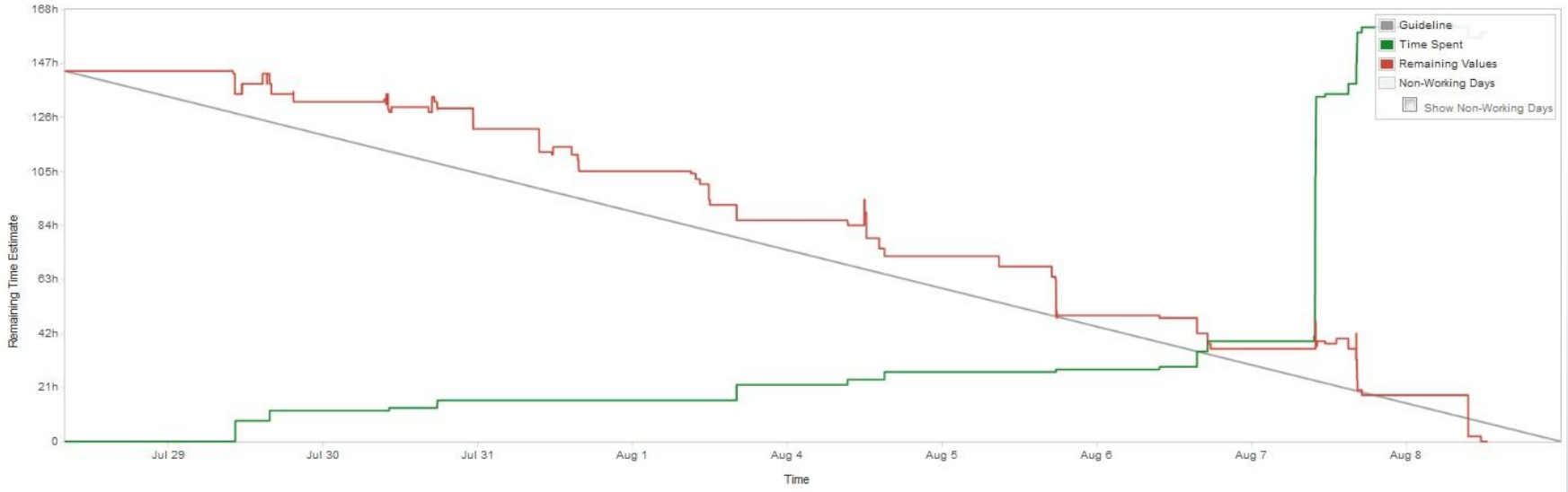
Sprints contain and consist of the Sprint Planning, Daily Scrums, the development work, the Sprint Review, and the Sprint Retrospective.



HOW DO WE TAKE ADVANTAGE?

Continuous and Timeboxed Monitoring/Control

Burn down Chart

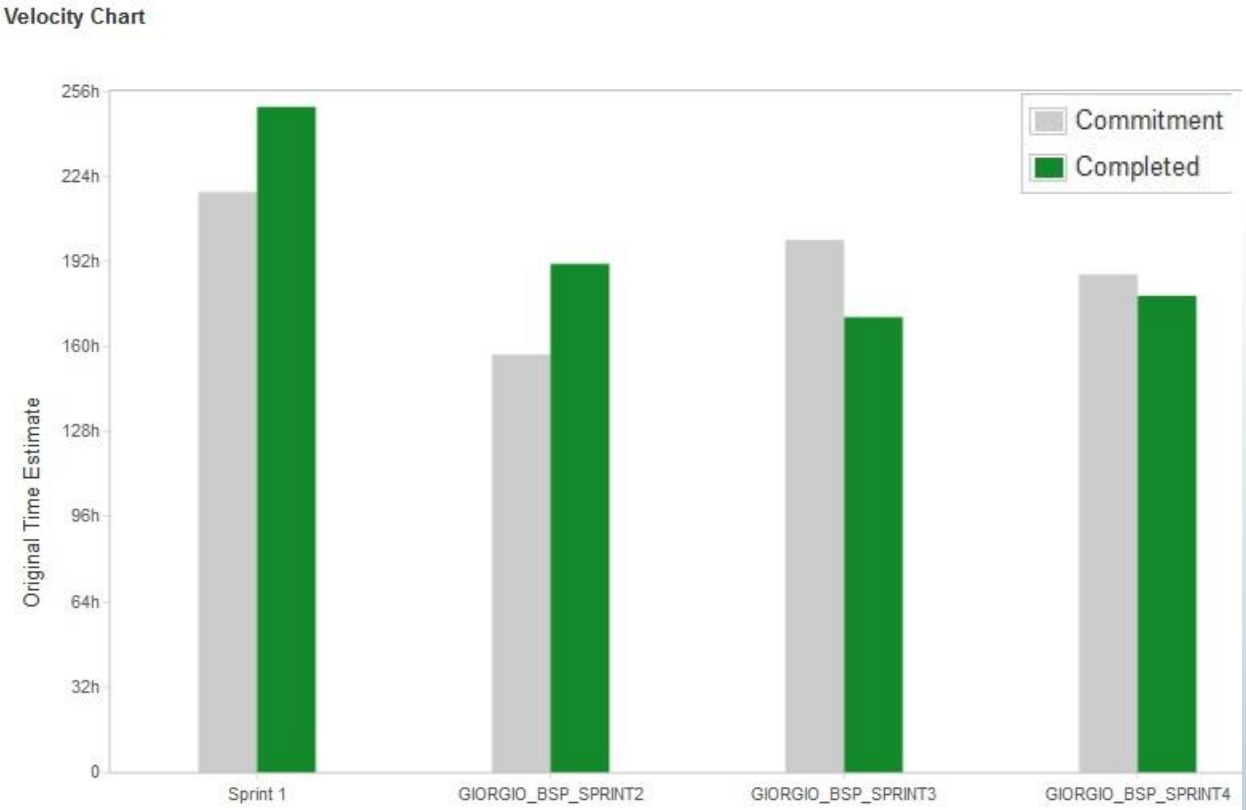


				Time Spent			Remaining Time Estimate		
Date	Issue	Event Type	Event Detail	Inc.	Dec.	Sum	Inc.	Dec.	Remaining
28/07/2014 08:00	ALFA-1442	Sprint start		-			4h		
	ALFA-1443			-			2h		
	ALFA-1444			-			6h		
	ALFA-1445			-			2h		
	ALFA-1446			-			6h		
	ALFA-1447			-			2h		
	ALFA-1448			-			3h		
	ALFA-1449			-			3h		
	ALFA-1450			-			6h		

HOW DO WE TAKE ADVANTAGE?

Continuous and Timeboxed Monitoring/Control

Velocity Chart

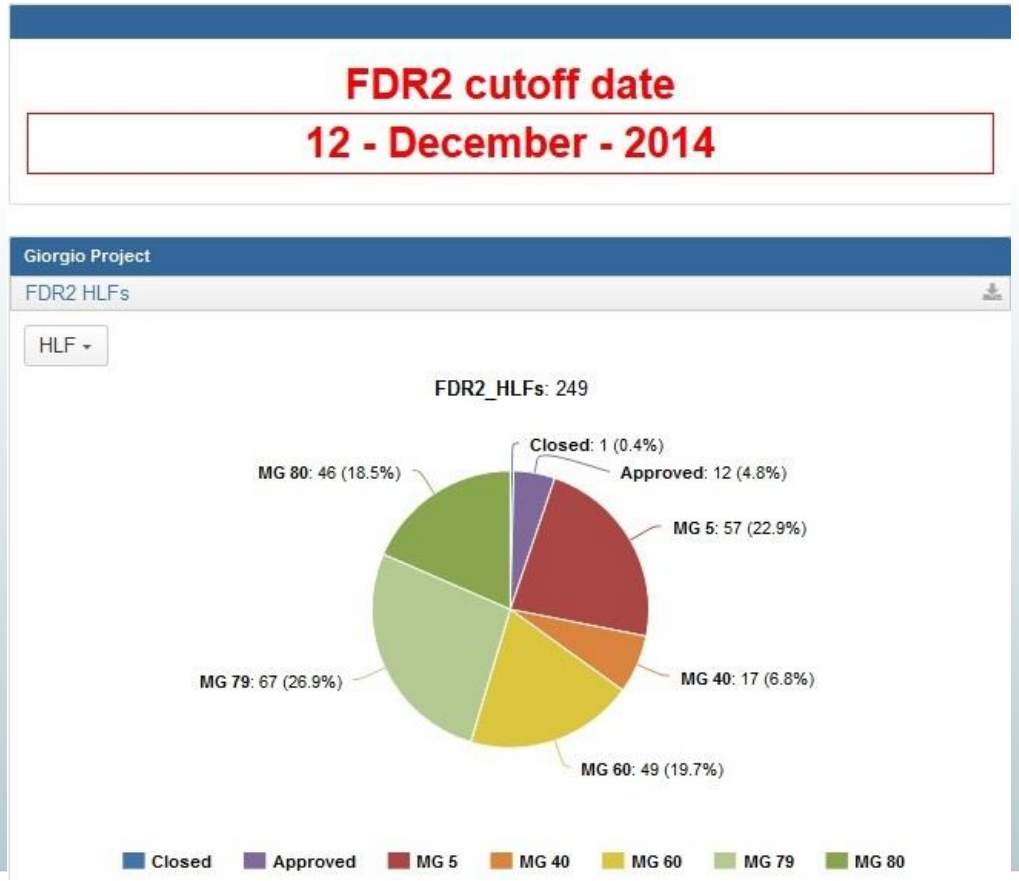


Sprint	Commitment	Completed
Sprint 1	5w 2d 2h	6w 1d 2h

HOW DO WE TAKE ADVANTAGE?

Continuous and Timeboxed Monitoring/Control

Milestones Dashboard



HOW DO WE TAKE ADVANTAGE?

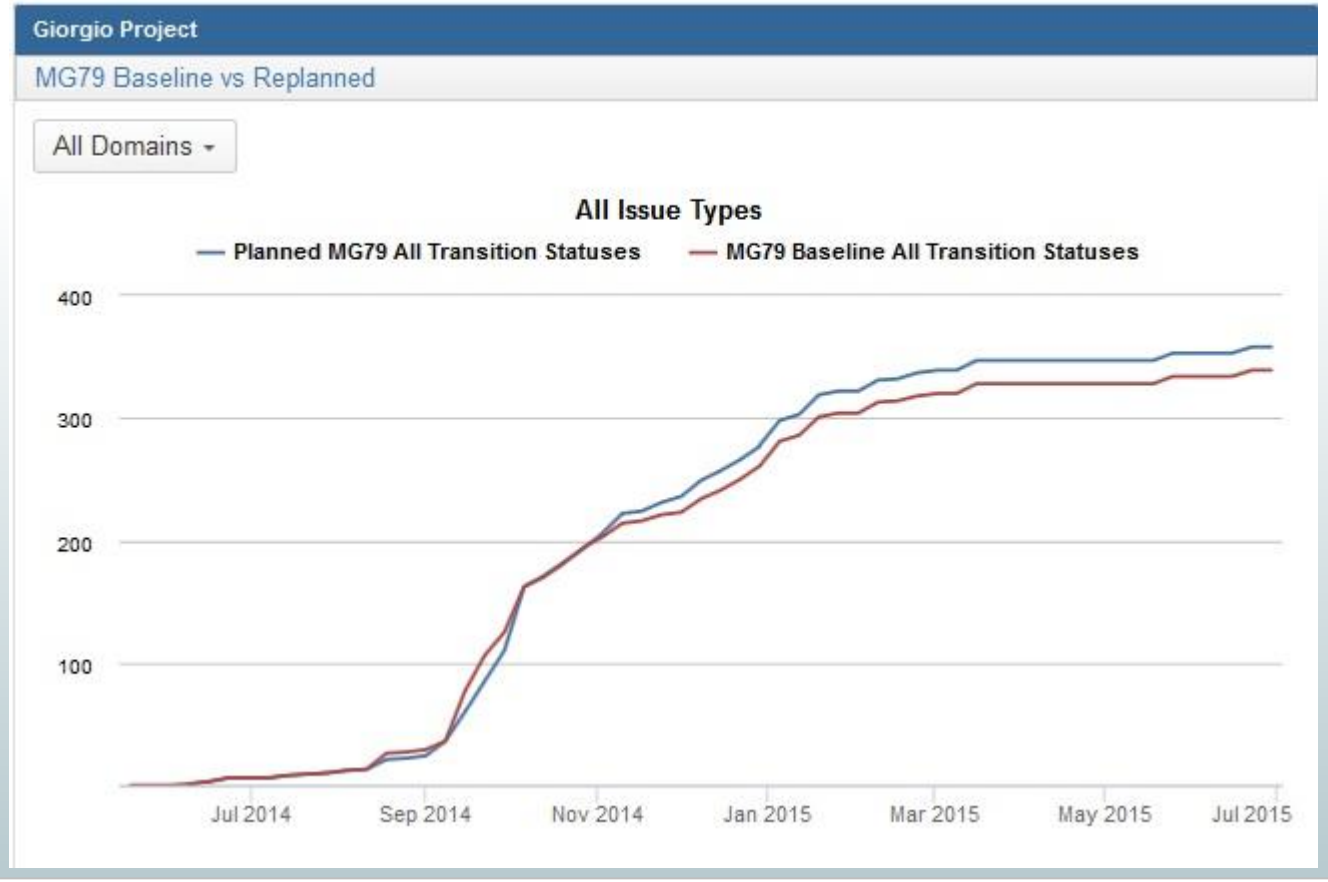
Continuous and Timeboxed Monitoring/Control

HLF Ramp-Up Actual Vs. Planned

HOW DO WE TAKE ADVANTAGE?

Continuous and Timeboxed Monitoring/Control

Baselined VS Re planned

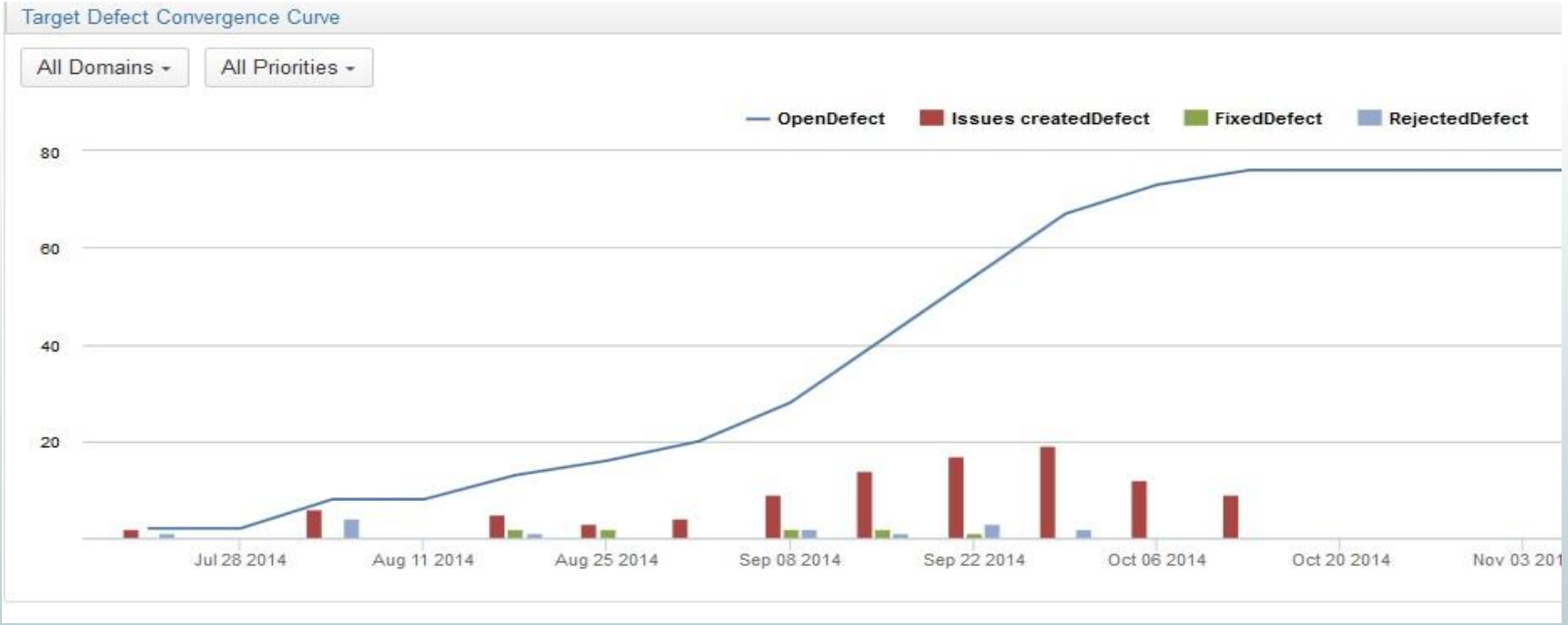


HOW DO WE TAKE ADVANTAGE?

Continuous and Timeboxed Monitoring/Control

Target Defect Convergence Curve

Phase Containment Effectiveness



THANKS!