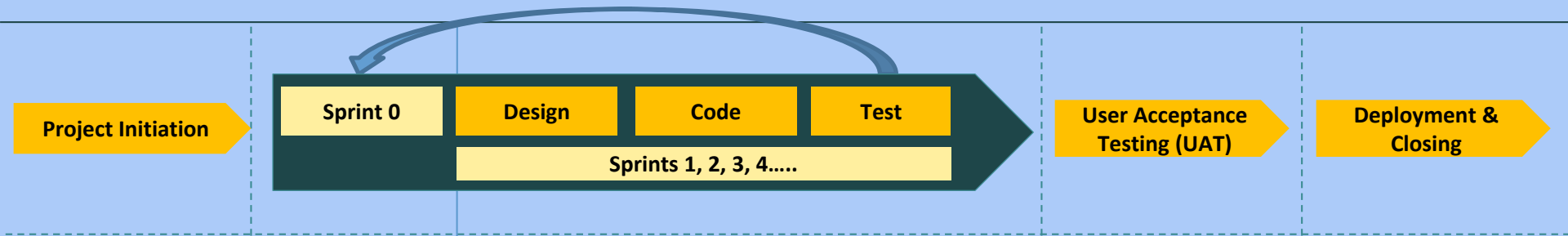
PLM - Agile

Agile Development

- Evolved in the 1990s as a response to “heavyweight” methodologies.
- In 2001 representatives of various new methodologies met to discuss the need for lighter alternatives . The Agile Alliance, promoting Agile development, was formed.
- Agile Development is a term used to describe a number of methodologies based on iterative and adaptive development. Examples:
  - Extreme programming (XP)
  - Agile Unified Process (AUP)
  - Dynamic Systems Development Method (DSDM)
  - Scrum
- While all the above are unique methodologies, they share the following key principles:
  - Iterative Development
  - Collaboration
  - Organization Adoption
  - Self-organization
  - Individual Accountability

PLM - Agile

Deliverables - Functional Users & Information Technology



Define and authorize a project's objectives, scope, purpose, and deliverables.

Outputs

- ✓ High Level Project Plan
- ✓ Project Charter
  - Cost Estimate
  - Resource List
  - Issue & Risk Register
  - Communication Plan

Define requirements, perform system design, develop and test the system.

Outputs

- ✓ Product Backlog

Outputs

- ✓ Updated Project Plan
- ✓ Sprint Backlog
- ✓ Unit Test Plan
- ✓ Defect Log
- ✓ Deployment Plan

Prepare for implementation of the developed system through UAT.

Outputs

- ✓ Updated Project Plan
- ✓ Updated Defect Log
- ✓ Production Readiness Checklist

Deploy the developed system in production and close the project.

Outputs

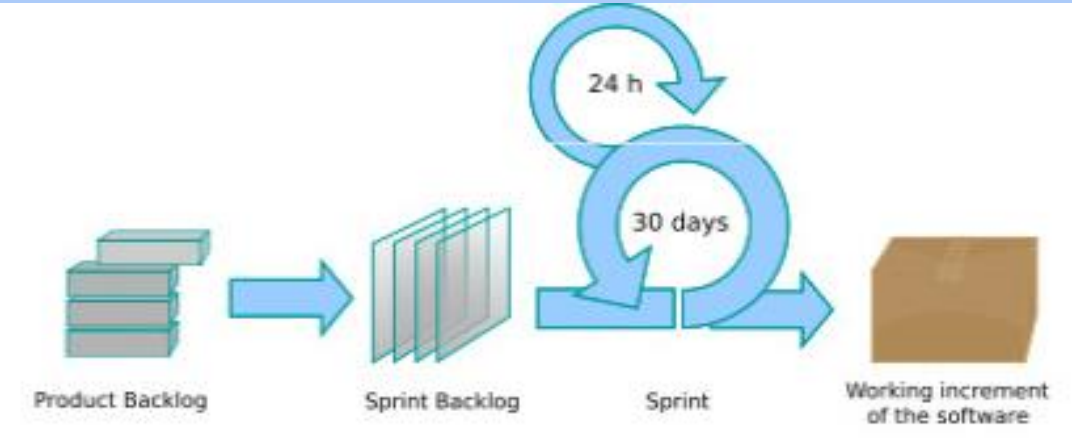
- ✓ Project Close Checklist
  - Project Metrics
  - Lessons Learned Document

Scrum

- Scrum is one of the most adopted methodologies following Agile Software Development principles.
- The term Scrum comes from a formation used in Rugby. The formation is used to bring an out-of-play ball back into play.
- The main roles in Scrum are:
  - **Scrum Master aka Project Manager:** Scrum facilitator whose main responsibility is to remove impediments for the team.
  - **Product Owner aka Functional Lead:** Stakeholder representative whose main responsibility is to prioritize items on the Product Backlog.
  - **Team aka Project Team:** A group of cross-functional resources whose main responsibility is to develop requested functionality.

Sprints

- Scrum projects consist of one to many equal short iterations called Sprints.
  - Each Sprint results in a potentially shippable set of functionality.
  - Each Sprint is usually 30 days long.
  - Project may contain one to many Sprints depending on project scope.
  - First Sprint, called Sprint 0, is used to develop an initial **Product Backlog**.
  - Sprint begins with a Sprint Planning Session and ends with a Sprint Review Session.



Product Backlog

- **Product Backlog** lists all of the things that the system should include and address.
  - Prioritized list of all requirements that contains features, defects, complaints, functionality, and technology.
  - Never finalized as it evolves along with the project.
  - Items on the Product Backlog are estimated by the Scrum Team.
  - Only the **Product Owner** can prioritize the backlog.

Product Backlog Items - Group Information Project

PBI ID	PBI Description	Category	Source	Status	Estimate	Priority	Sprint
FN-GLT-0005	Provide access to internal and external users to Group Information application via SFO.	Usability	Customer Service	Planned	32	1	1
FN-GLT-0010	User session timeout in SFO for all users should be maintained as it exists currently	Usability	Paul	Planned	4	1	1
FN-GLT-0025	Improved application performance for all users	Usability	Paul	Planned	40	2	2

Sprints Planning Session

- Each Sprint begins with a **Sprint Planning Session**.
  - Sprint Planning Session takes place on the first day of the Sprint with the Scrum Team, Scrum Master, Product Owner, and stakeholders.
  - High priority Product Backlog items are discussed to fully understand requested items.
  - During the first half of the meeting, Scrum Team selects a number of the high priority Backlog items they can deliver in one Sprint.
  - During the second half of the meeting, the Scrum Team develops a list of tasks, estimates, and assignments to deliver selected Product Backlog items at the end of the Sprint. The output is called **Sprint Backlog**.

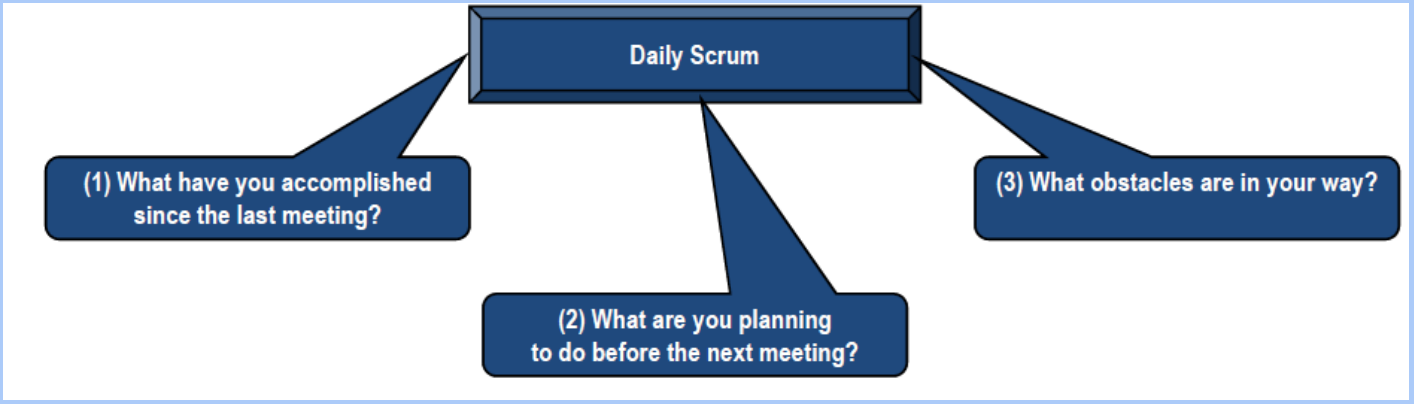
Sprint 1 Backlog - Group Information Project

Sprint Begin Date: 04/20/09 Sprint End Date:05/15/09

PBI ID	PBI Title	Task ID	Task Description	Responsible	Status	hours of work remaining				
						Day 1	Day 2	Day 3	Day 4	Day 5
FN-GLT-0005	Provide access to internal and external users to Group Information application via SFO.	1	Define Group Information application as a resource in TAM	Paul	Completed	20	0	0	0	0
FN-GLT-0005	Provide access to internal and external users to Group Information application via SFO.	2	Integrate Group Application with SFO through TAM resources	Paul	In Progress	12	24	24	10	8
FN-GLT-0005	Provide access to internal and external users to Group Information application via SFO.	3	Integration with UA to fetch user access information via SFO menu	Paul	Not Started	8	8	8	8	8

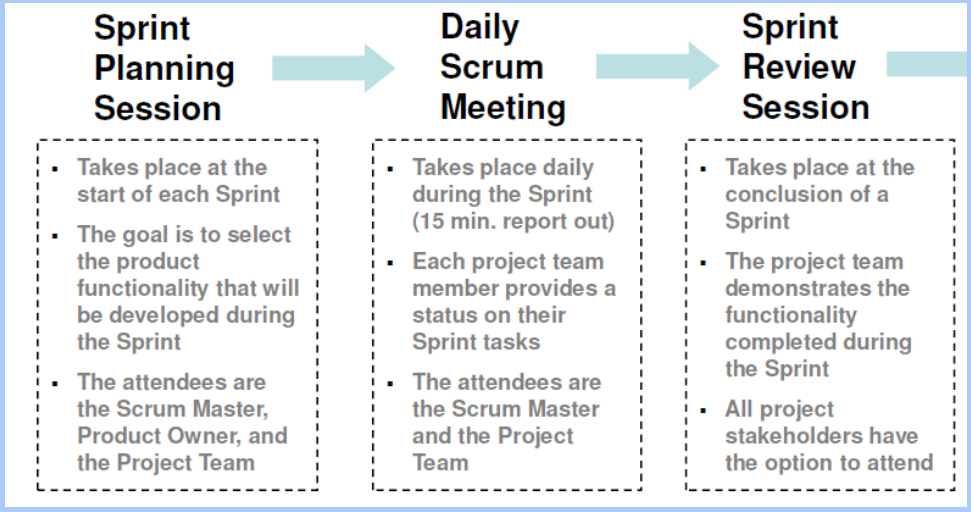
Daily Scrum

- During a sprint, the Scrum Team meets daily for a short status meeting, called the **Daily Scrum**. The purpose of this meeting is to share status, make others aware of work that may impact them, and notify the rest of the team of any impediments.
  - Daily Scrum is 15 minutes long. Daily Scrum takes place at the same time and same location every day.
  - Daily progress is reviewed and impediments are identified during the meeting.
  - Anyone is welcome to attend to observe how much progress a team is making.
  - Only the Scrum Team members may speak.
  - During the meeting, each team member answers three questions identified below.



Sprint Review Sessions

- **Sprint Review Session** takes place at the end of each Sprint.
  - Sprint Review Session is attended by the Scrum Team and stakeholders
  - Completed work is demonstrated to the stakeholders
  - Work planned but not completed as well as any additional suggestions are added to the Product Backlog for future Sprints or possibly future projects
  - The meeting is informational. Criticism of the completed work or individual performance discussions are not part of this meeting.



Q & A