AGILE –SCRUM

Project Development Methodology

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Business Challenges

Shorter Delivery Cycles/Long Term Customer Commitments

- Customers looking at faster delivery cycles
- Adaptive solutions to meet customer's ever changing business environment
- Long term customer commitments
- Time to Market

More Features/ Better Quality

- Competitive feature game
- Maintain high Production Quality
- Improve Usability

Address New Markets/ Honour Old Customers

- Become present in new Markets and segments
- Deliver as promised
- Improve customer satisfaction & ensure retention

How to go about it!

The Stage

Identify Improvement Areas

- Finding the problem & root cause
- Maintain focus on your core competencies
- Work towards the end solution, keep intermediate goals

Start rolling the Ball

- Keep things simple
- Do your analysis before doing anything

Institutionalize & Adopt Change

- Train and facilitate teams
- Delegate & Empower
- Create Accountability with Responsibility

The SCRUM WAY !

Understanding SCRUM

What is SCRUM?

Work in your functional team

Scrum Call

Collaborative Planning & Review

Restart your work again

- Agile Way of Project Management.

- A team-based collabrative approach

- Iterative & incremental development

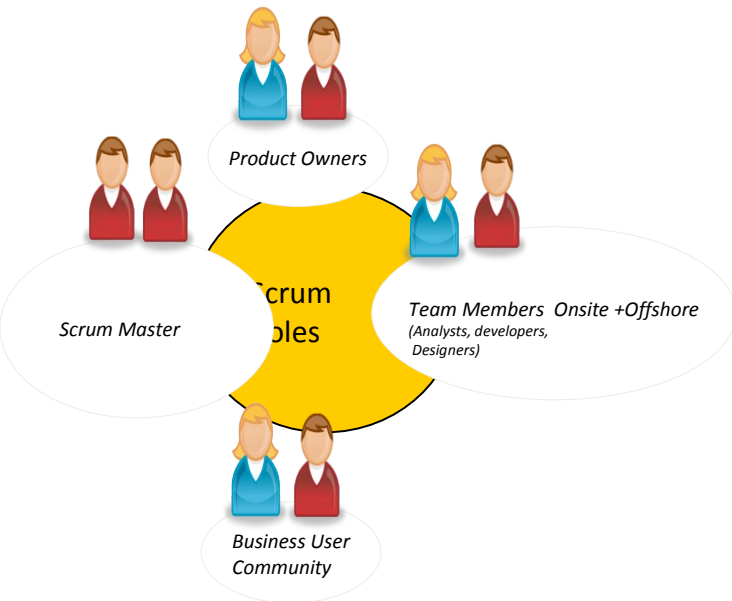- Always focus to deliver "Business value"

PRINCIPLES OF SCRUM

- **Welcome changing requirements, even late in development**

- **Deliver Valuable Working Software frequently. This is our primary measure of progress.**

- **Early visibility to Business**

- **Product owners (Business) and developers must work together daily throughout the project, at a sustainable pace**

- **Inspect and adapt**
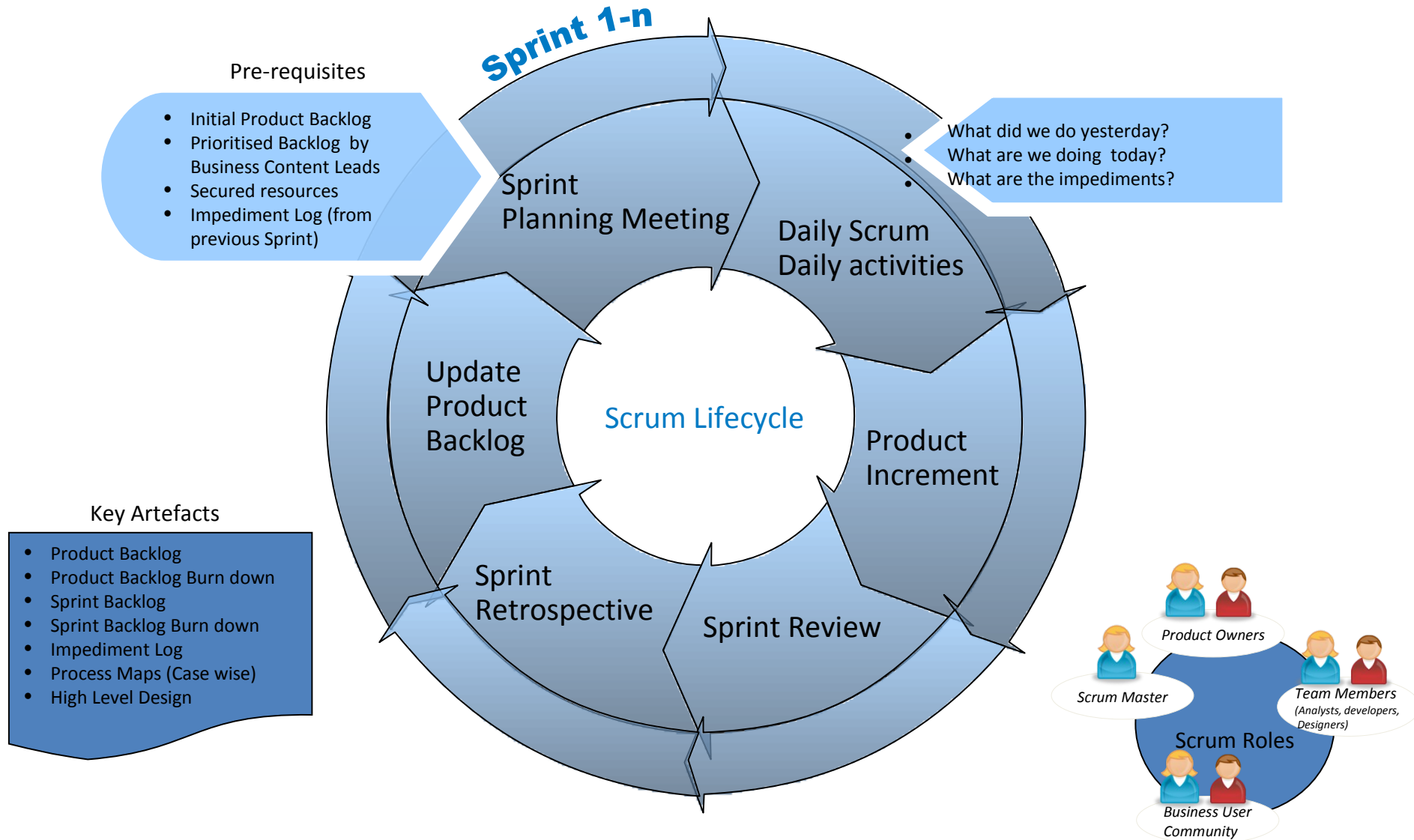
- **Self Organizing teams**

SCRUM Rules

- **You Have No Hierarchical Role; You Are an Expert**
- **You are Part of the Team**
- **The Team's Goals are your Goals; You committed to them**
- **Do Whatever you can for the Team to meet its Goals**
  - Forget Role Thinking!
- **There Is No Individual Failure - The Team Fails!**
- **There Is No Individual Success – The Team Succeeds!**
- **Done is done; as a team you completed these activities**
- **You let the team down if you're late to meetings**

SCRUM Team

Product Owners

Scrum Master

Scrum Roles

Team Members Onsite +Offshore (Analysts, developers, Designers)

Business User Community

- Responsible for committing to work
- Self-organizing
- Authority to do whatever is needed to meet commitment
- Ideal core team size 7 (*does not include visiting SME or floating resources such as Usability Test*)
- Demonstrates Sprint output as Product Increment

- Business Owner, user community and stakeholders
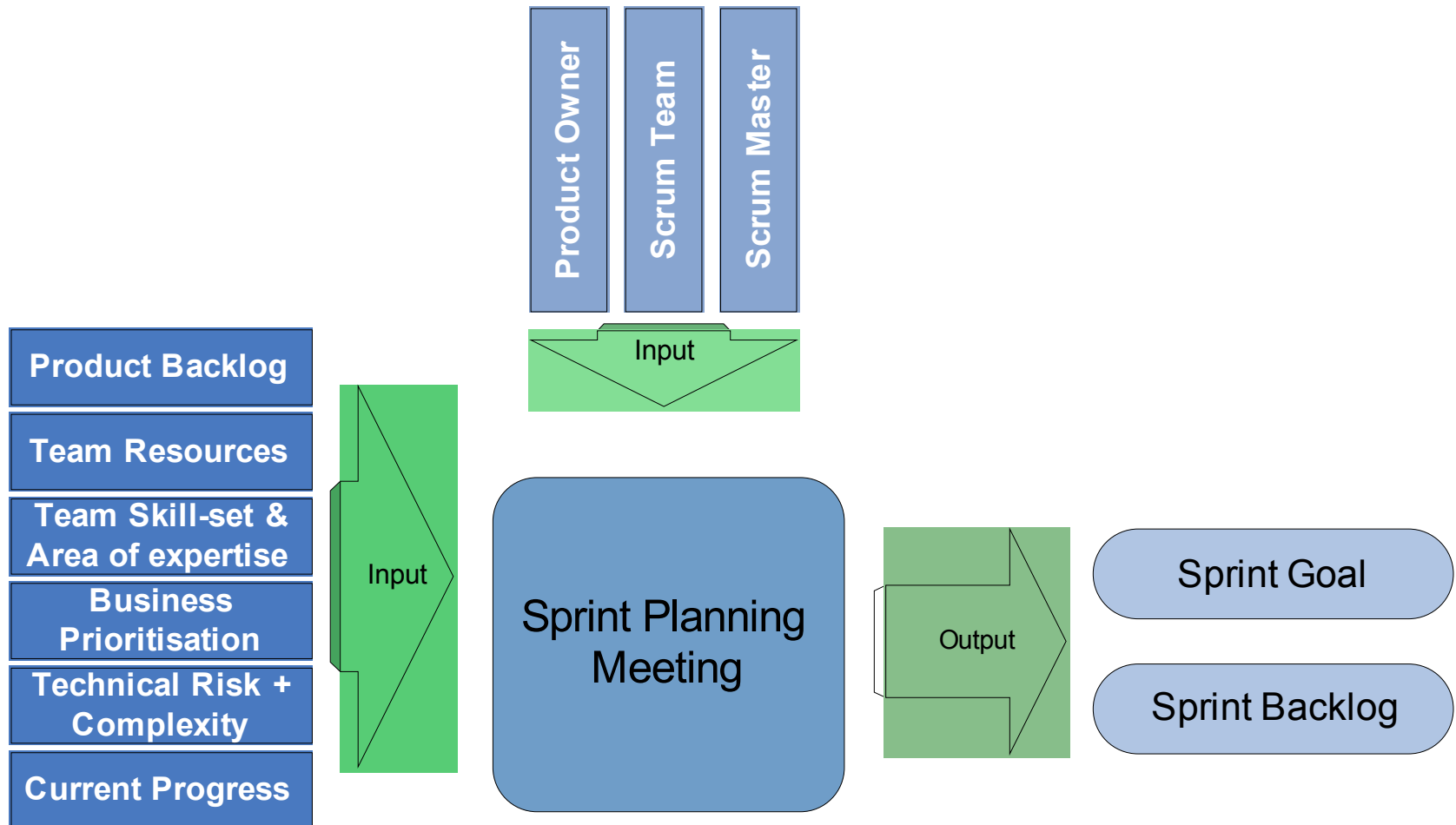- Scrum Master
- Chicken and Pigs

SCRUM and SPRINT Cycle

INFOPRO Worldwide Inc.

Sprint 1-n

Pre-requisites

- Initial Product Backlog
- Prioritised Backlog by Business Content Leads
- Secured resources
- Impediment Log (from previous Sprint)

- What did we do yesterday?
- What are we doing today?
- What are the impediments?

Scrum Lifecycle

- Sprint Planning Meeting
- Daily Scrum Daily activities
- Product Increment
- Sprint Review
- Sprint Retrospective
- Update Product Backlog

Key Artefacts

- Product Backlog
- Product Backlog Burn down
- Sprint Backlog
- Sprint Backlog Burn down
- Impediment Log
- Process Maps (Case wise)
- High Level Design

Scrum Roles

- Product Owners
- Scrum Master
- Team Members (Analysts, developers, Designers)
- Business User Community

PRODUCT BACKLOG

Ref ID	Sprint	Who: As a …	What: User Story Statement …	Why: So that …	Acceptance Criteria
PBI-001	2 - Simple Order to Asset	COMC user	I want to create a simple single order in Siebel that once submitted automatically creates a corresponding contract signed order in Compass and returns a status update to Siebel.	* I don't have to rekey the order. * I know that the order status is aligned between systems without me having to track them separately.	* A single order is created in Compass for a single order in Siebel. * The order in Compass will have a "contract signed" status. * The following data between the Siebel and Compass orders is aligned: - Reference data - Prices - PLIs - Discounts - Accounts * NEED NFR for speed and security * NEED SPECIFIC PRODUCT * REGION = REMA * COUNTRY = BALTICS * FUNCTIONAL AREA = Create Order in Compass
PBI-003	2 - Simple Order to Asset	SDM	I would like to see how code changes and environments will be managed between CRM 5.5, 6.0 and 6.1.	* I am confident that the integrity of the production code base is retained.	* Strategy defined.

SPRINT PLANNING
OFF-SHORE/ONSITE – through VC

Product Owner | Scrum Team | Scrum Master

Input

| Product Backlog |
| Team Resources |
| Team Skill-set & Area of expertise |
| Business Prioritisation |
| Technical Risk + Complexity |
| Current Progress |

Input

Sprint Planning Meeting

Output

Sprint Goal

Sprint Backlog

Sprint Planning

- The Project Product Owner reprioritises the product backlog

- The Product Owner and Scrum Team meet to determine the work that can be completed in the next sprint.

- Work is selected from the top of the priority list by **the Team**.

- The Product Owner and the Team establish a goal for the sprint

- The Team is expected to select only work which they can **commit to finishing** (according to the definition of "DONE")

- Selected items are broken down into sprint backlog tasks

- Team estimation is informed by performance on previous sprints, capacity for the forthcoming sprint and the relative complexity of the tasks required to deliver the Sprint Goal.

SPRINT Backlog contents

- The list emerges during Sprint planning
- The Sprint backlog is a list of tasks that defines a Team's work for a Sprint
- The tasks are what the Team has defined as being required to turn committed Product Backlog items into system functionality
  - Task size: 1-16 hours
  - Estimated as a team
- Each task identifies the estimated amount of work remaining for the Sprint
  - **<u>Tasks are not assigned, the team members pick themselves</u>**

Da Vinci Code - Sprint Backlog	Previous Ee	Actual Burndown	680.0	35.0	38.0	12.5	32.0	30.5
Task Description	**Priority**	**Initial Estimate**	Hours of work remaining					
			F 13	M 16	T 17	W 18	T 19	F 20
Title Import		639.0	660.0	625.0	589.0	576.5	544.5	514.0
		35.62	748.0	712.4	676.8	641.1	605.5	569.9
User Propagation								
Sign off action code and response code (siebel to EAI)		2.0	2.0	2.0	2.0	2.0	2.0	0.0
Sign off contact schema from siebel team		1.0	1.0	1.0	1.0	1.0	1.0	0.0
Change update login ID component within latest XSDs		3.0	3.0	0.0	0.0	0.0	0.0	0.0
Rework on propagate user		6.0	5.0	4.0	0.0	0.0	0.0	0.0
Build scripts coding changes for clustered environments		6.0	6.0	3.0	2.0	0.5	0.5	0.5
Stubs should define logic for update login ID		4.0	4.0	0.0	0.0	0.0	0.0	0.0
Integrate update login ID with propagate user		1.0	1.0	1.0	0.0	0.0	0.0	0.0
Build script execution		1.0	1.0	1.0	1.0	1.0	1.0	1.0
component		3.0	3.0	3.0	3.0	3.0	3.0	3.0
Rework after code review / e2e testing		16.0	16.0	16.0	16.0	16.0	16.0	16.0
monument		1.0	1.0	1.0	1.0	1.0	1.0	0.0
component		1.0	1.0	1.0	0.0	0.0	0.0	0.0
table)		1.0	1.0	1.0	1.0	0.0	0.0	0.0

SPRINT Backlog contents

- The Sprint Backlog should be **updated daily**
  - All tasks worked on that day
- Anything that gets done should be visible on the backlog
  - Emergent tasks are added by the team to the backlog throughout the Sprint

Sprint Backlog items		In Progress items		Testing Ready		Done
	→		→		→	
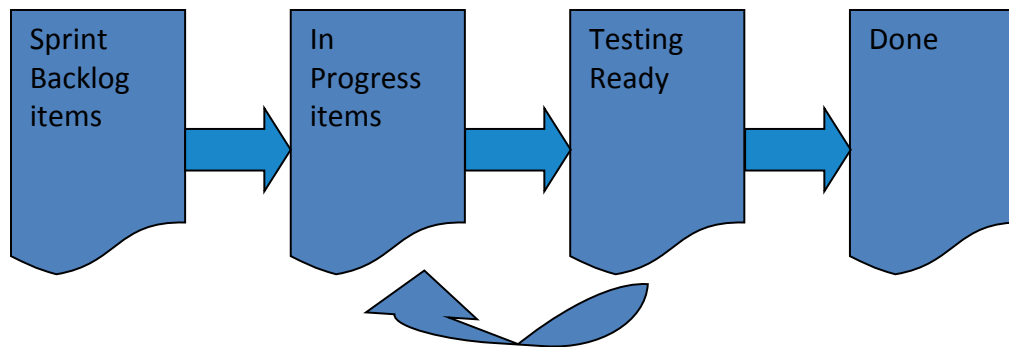
Daily Scrum meetings

- Daily meeting
  - 15 minutes
  - Standup (to avoid too long meeting)
  - Not for problem solving
- Three questions:
  - *What did you do yesterday?*
  - *What obstacles are in your way?*
  - *What will you do today?*

- Same Time
- Same Place
- Every Day
- Everyone Participates
- <u>Everyone</u> Stands
- No Design (Talk About it After the Meeting)

- Update Sprint Burn down
- Update Impediment log

Daily Scrum Meetings

- ➢ Offshore and Scrum
  - ▪ Part of scrum team will be located offshore
  - ▪ Offshore team will work closely with onsite teams through various SPRINT phases

- ➢ Scrum Master Responsibilities
  - ▪ Ensure self and team participates in daily scrum over teleconference
  - ▪ Ensure that burn down charts of the sprint backlog is up-to-date
  - ▪ Note impediments in his/her capability and address them
  - ▪ Ensure participation in the daily Scrum of Scrums (SoS)
  - ▪ Bring to the notice of SoS, the impediments that are not in his/her capability of solving

Impediment log

- Any issue that prevents the Scrum Teams from being able to progress an activity should be placed on the Impediment Log.

- Any issue that is highlighted and known to impact the Scrum Teams at a future date or future sprint, should be placed on the Impediment Log

- It is the responsibility of Scrum Master to resolve impediments locally. If the impediments cannot be resolved locally, then these need to be raised at the Scrum-of-Scrum daily meetings for escalation

- Anyone in the Team can raise an Impediment identifying a blocker to project progress.

SPRINT Burn Down

- Hours Remaining by Date
- Updated daily by Scrum Master (*uploaded to Share point*)
- Previous days' Sprint Burn down is brought along to daily Scrum of Scrums meeting
- How much effort is left to be done
- Visible to all the team (*printed off and placed on Scrum team whiteboard*)

10/12/2007 - 11/12/2007
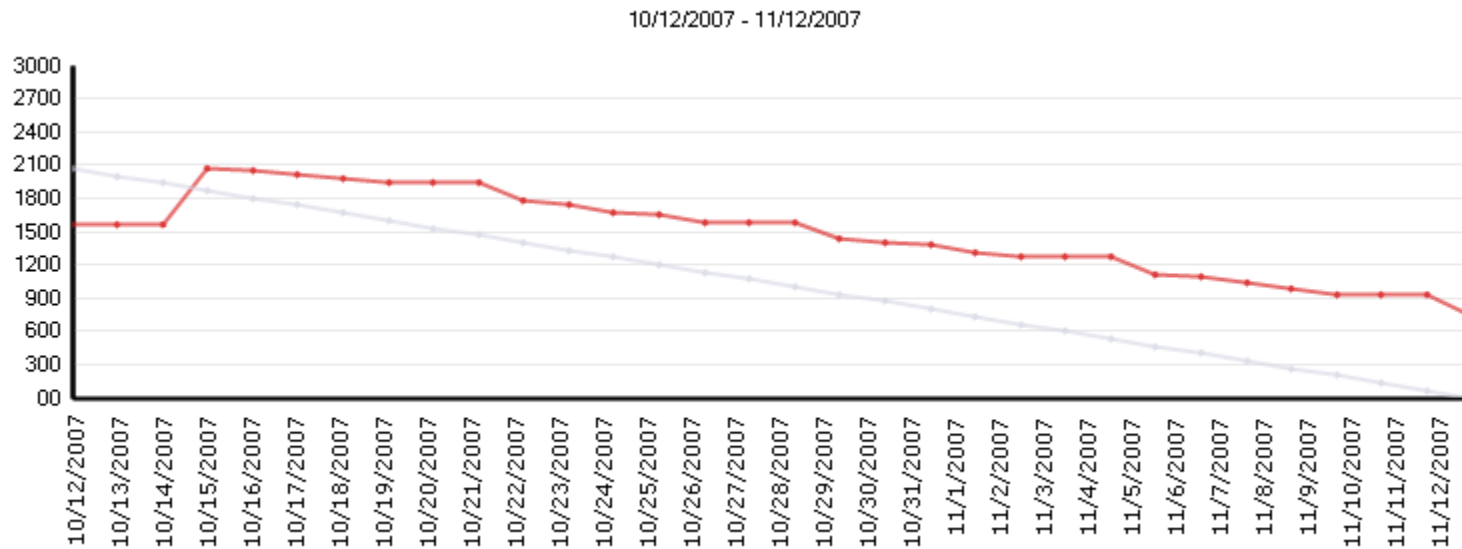
SPRINT Review

- The team presents to management, customers, users and Product Owner the product increment that has been built during the Sprint
  - Sprint goal
  - Product Backlog committed
  - Product backlog completed
- The team tells story of its journey during the Sprint – honestly!
- The majority of the Sprint Review is spent with Team members presenting functionality, answering stakeholder questions regarding the presentation
- At end of presentation, stakeholders are polled, one by one to get their impressions, any desired changes, and priority of these changes.
- Product Owner discusses with Team about potential rearrangement of the Product Backlog based on the feedback.

SPRINT Review Process

- The Team should not spend more than one hour preparing for Sprint Review.

- Functionality that isn't "Done" <u>cannot</u> be presented.

- Functionality should be presented and executed from development environment

- Stakeholders are free to voice any comments, observations, or criticisms regarding the increment of potential shippable product functionality

- Stakeholders can identify functionality that wasn't delivered or wasn't delivered as expected and request that such functionality be placed in the Product Backlog for prioritisation.

- Stakeholders can identify any new functionality that occurs to them as they view the presentation and request that the functionality be added to the Product Backlog for prioritisation.

- The Scrum Master should determine number of people who <u>expect</u> to attend the Sprint Review meeting and setup the meeting to accommodate them.

- At the end of Sprint Review meeting, Scrum Master announces the place and date for next Sprint Review to Product Owner and stakeholders.

SPRINT Retrospective

•Meeting at the end of each sprint, facilitated by Scrum Master, where the team review the sprint just completed and discusses what improvements they would like to make to the next sprint to make it more productive.

- Process Improvements made at the end of every sprint
- All team members identify what went well and what can be improved
  - Processes
  - Communication
  - Environment
  - Artefacts
  - Tools
  - Team dynamics
- Team devises their own solutions to problems
- Assists with team formation and bonding as conflicts identified quickly and thus can be dealt with

DONE CRITERIA

Area	*Activity*	*Completion Status*
Documentation	Design documented in HLD and agreed within project incl peer review outside scrum team.	100%
Documentation	Business Process Maps in Casewise to Level 4/5 agreed within project incl peer review outside of scrum team	100%
Documentation	Traceability – mapping of design to scope item to PBI to requirements to Process maps	100%
Design Assurance	Design agreed and aligned with solution architecture (SAA + Solution Architect)	100%
Data Model	Design agreed with Data Team and information requirement fully defined	100%
Migration	Migration requirements agreed with the migration team incl where there are none	100%
Reporting	Reporting requirements agreed with Product Owner and/or Content Lead and PBI added to Reporting Backlog	100%
Testing	Functional and Non-Functional Testing scripts produced and NFR coverage tracked including explicit statements where not required	100%

•*This list applies to all Product Backlog Items. If you are developing code in the sprint then page 2 (next slide) applies as well*
•*Evidence of Done will be required so ensure that you have obtained agreements by email where applicable*

DONE CRITERIA

Area	Activity	Completion Status
Code	Developed against selected elements of the PBI design and build standards and peer reviewed.	100%
Design	Detailed design incorporated in HLD document and reviewed and agreed by lead designer/architects	100%
Testing	Unit Testing coverage (Error & defect free)	100%
Testing	Functional Testing presented to and conducted by content lead and/or SME and/or Front Line Business Users	100%
Testing	Usability Testing presented to and conducted by content lead and/or SME and/or Front Line Business Users	100%

Project --Development Process
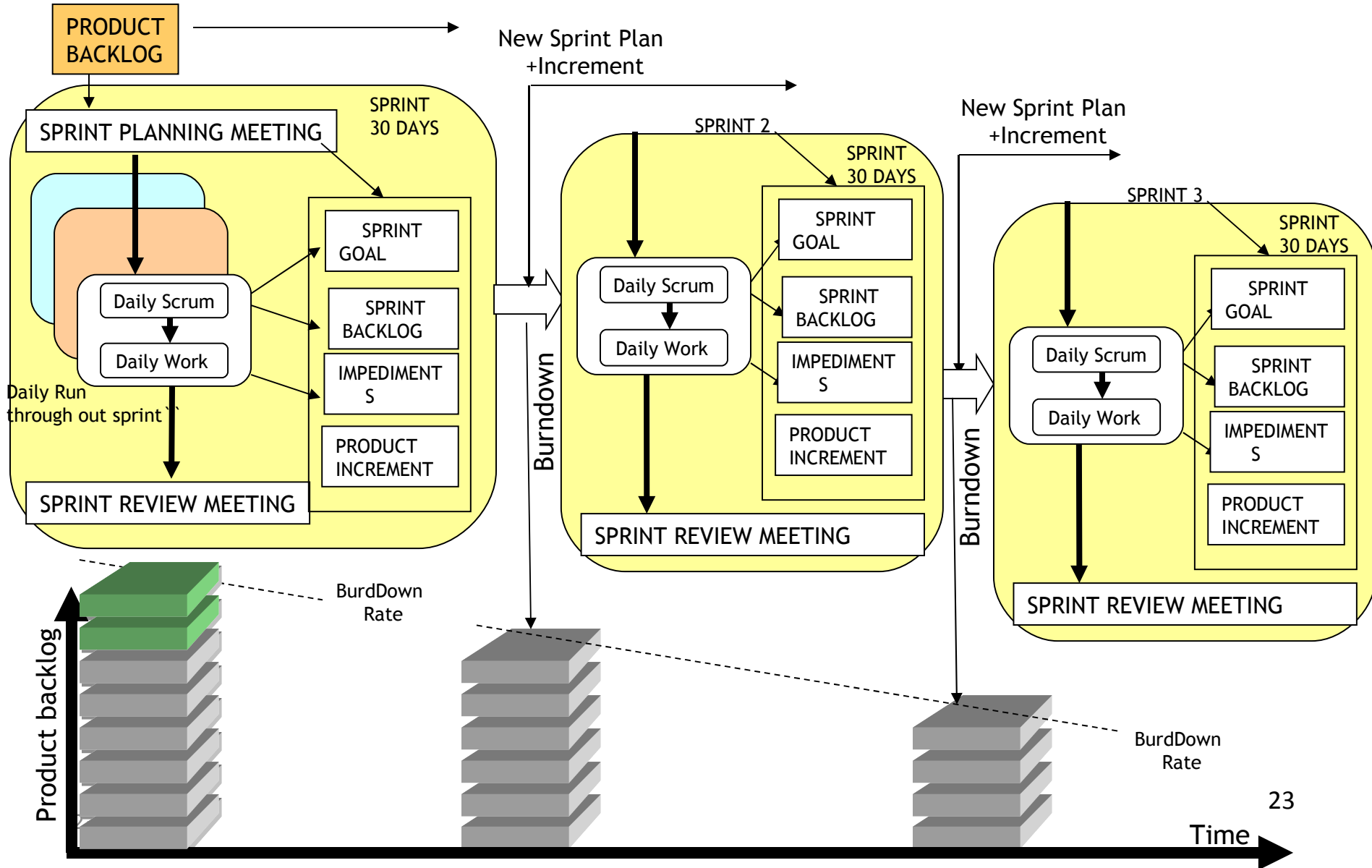
SCRUM in Practice

Pre-Flight Checking

Plan your roadmap
- Identify small yet distinctively measurable goal
- Be clear
- Create internal expertise- Scrum Masters

Prepare your teams
- Get the terminology correct – Train
- Ensure you have all members covered –Seniors as well
- Make them comfortable

SCRUM Benefits

Benefits

- Team

    The teams get focused > One common goal
    Creates self discipline, accountability & responsibility
    Faster, better Communication without barriers
    No Manager-subordinate relationship – flat structure
    Team Work, Commitment and Time & Risk Management

    There Is No Individual Failure – The Team Fails!

    There is No Individual Success –Team Success (No man of the match)!

- Stakeholders
    - Higher Visibility any time
    - Ability to respond and Adapt
    - Real software code in early phase of SW life cycle
    - Better evaluation, testing, demonstration purposes.

    - Organization
        - Business Value - ROI

Scrum Challenges

Things start failing, when

- Team member's focus moves away from Sprint Goals.
- Stakeholders present/influencing team members participation.
- Daily Scrum Meetings turns into discussions
- Confusion over impediments (Internal/External)

Rectify it !

Check it !

Stop it!

Solve it !

Things which are over-sighted

- Increment is demonstrated – But no focus on "Business Value".
- Stakeholders have other high priority work
- Team & Stakeholders say good job, does not measures
- Learning's are NOT moved into Next Sprint Plan

Ask what Business Value!

Stop, Include them !

What done, What left!

Do retrospective check!

Tools -SPRINT UPDATES

Tools -TEST UPDATES – Quality Centre

Q&A

Thank You