

AGILE CASE STUDY

Revenue Commissioners, Ireland.



AGILE CASE STUDY SUMMARY



- Over a 6 month period, an Agile pilot was conducted which trialled various techniques, tools and approaches. Having tried Agile previously, the transition had proved more challenging than expected and thus an Agile Coach was engaged to help improve throughput, efficiency and developer productivity.
- ✓ Defining a solid 3 tier **Definition of Done** (User Story, Sprint & Release) helped **resolve ambiguity** and ownership concerns around quality.
- Team autonomy was developed by immersing the team in Backlog Refinement and User Story creation earlier in the process, the team felt more empowered and provided value in the form of User Story feedback to the Product Owner.
- Adopting some Kanban techniques during Sprints enabled the team to complete more User Stories each Sprint – this increased team morale and trust with the Product Owner. These same changes positively impacted the daily Stand-up as the team became more focused on working as a cross functional team and on throughput rather than individual tasks.

- The command and control management style typical in most State Organisations has little synergy with the Agile world. Recognising and acknowledging this brought awareness which is key to developing more of a servant leader management style.
- ✓ Senior Management were fast to realise that having an Agile Vision and Change Management plan would help drive Agile changes through the organisation with greater determination. Agile training alone didn't create enough energy and drive to deliver a transformation of this scale.
- ✓ The Waterfall Organisation Structure and Governance impeded the Scrum Team's ability to be successful with Agile. Gaining autonomy was difficult in this culture so developing the concept of an "Agile-Pop-Up-Organisation" created a more forgiving and nurturing environment for Agile to grow in the Organisation.
- ✓ In summary, the pilot delivered a product that was highly relevant with no dead features and was also of high quality. Having a shared team goal improved efficiencies while removing barriers and silos between traditional waterfall departments. The definition of the Agile vision is work in progress as initial pilots are further matured to create the preferred Agile template to ramp up the rest of the organisation in line with their Agile Vision.



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CASE STUDY IN DETAIL

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SETTING THE SCENE



- Development Teams within the organisation are composed of functional domains rather than products -SME's exist within domains and typically move project teams depending on SME requirements. Therefore teams are **not long lived** and *can* change each quarter.
- One team were at the beginning of their Agile journey; some team members had tried Agile the previous year and were keen to evolve to gain more benefits from being Agile.
- On previous Agile engagements, QA had been implemented **1 sprint behind** outside of the Scrum Team. Testers and Developers were **now working in parallel** (and physically co-located) on a Scrum Team for the **first time**.
- ✓ Following a comprehensive review 7 areas were identified as the highest priority for focused coaching, mentoring and training to increase development productivity.



#1. USER STORIES

Revenue

Challenge & Impact

 ✓ At the end of some Sprints incomplete User Stories were causing frustrating for the team. The Sprints were essentially running as mini waterfall projects.

Solution

- Coaching & Mentoring helped the team grasp the concepts of failing and succeeding together, leaving behind the traditional Test and Development handovers.
- Focus turned to their shared team purpose; delivering valuable working User Stories each Sprint.

- Adopting the "T" model (depth and breadth of skills) and becoming a cross functional team drove the team to pick up new "breadth" skills and not always focus on "depth" skill. Developers picked up testing tasks, focusing on automating more and scripts to create use cases data to speed this process up. This allowed for a significant increase in test execution.
- ✓ Setting a Work in Progress (WIP) limit for the number of in-flight User Stories helped focus on throughput rather than having all User Stories inflight. This helped to drive cross functional behaviours through adoption of the "T" model – the WIP limit essentially forced behavioural changes which developed team morale and delivered value faster.
- Introducing the concept of individual WIP limits for tasks helped to further increase throughput and flow by reducing context switching whilst driving efficiency.



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#2. STAND-UPS



Challenge & Impact

- ✓ The Team wanted more value from their Stand-Ups.
- They were verbally reporting progress on assigned tasks which was mostly already known on account of the team being co-located.
- The Scrum Master knew from daily informal chats the status of User Stories and tasks and everyone knew their assigned tasks for the duration of the Sprint.

Solution

 2 changes were implemented to make Stand-ups more useful & engaging:

- The Team assigned fewer tasks at Sprint Kick-Off and focused on just the initial ones. In conjunction with the team WIP limits & adopting the "T" model, Stand-ups became more of a discussion to see how they could help each other get User Stories completed and self-assignment of tasks became a trend.
- They started using a physical Kanban board to visualise the work with Post-its. The Stand-up format changed from individuals reporting status on tasks to the team as a whole looking at User Stories on the board and asking what it would take to get the User Story to a Done State.
- ✓ It drove real cross functional team work, and bonding was the by-product as they helped and assisted each other to achieve their shared goal; delivering completed valuable User Stories each sprint.



#3. BACKLOG REFINEMENT & ESTIMATION

Challenge & Impact

- Due to their size, the Scrum Team couldn't always be part of estimation or Backlog Refinement sessions. This was typically completed outside of the Sprints by the BA, Product Owner and Scrum Master – with input from Developers as required.
- At Sprint kick-off, the pre-estimated User Stories were presented to the team and each team member was assigned their tasks for the next 2 weeks in advance. Essentially all planning, design, estimation and User Story creation was done outside of the Scrum Team.
- The impact here was that the team were not autonomous.

- ✓ The Sprint Kick-off sessions sometimes provided the first opportunity for the team to see the requirements and seek clarifications. Increasing Team interaction with the Backlog improved the product due to early feedback & ideas from the wider Team.
- More people were brought into the Refinement sessions, but never the entire Scrum team of 12. Reducing the size of the team over time will better enable Team Backlog Refinement .
- Having a large Scrum Team meant there was balancing act between engaging the entire team in Backlog Refinement versus the value they get from being involved earlier.





#4. JIRA SPRINT BURNDOWN



Challenge & Impact

- Jira Burndown Charts weren't showing accurate data.
- At the end of each Sprint the burndown did not reflect the amount of completed work and typically had larger volumes of outstanding hours than reality would suggest.
- ✓ These reports were also being used for tracking Earned Value at a project level.

- Issues were resolved by fine tuning the implementation & usage of Jira.
 Following detailed analysis on the project reports:
 - ✓ Consistency with logging time increased.
 - The Sprints in Jira were started only when all estimates were entered against the User Stories to avoid inflating growth when estimates were added.
 - ✓ Updating the "time remaining" for completed tasks ensured all outstanding time on User Stories was negated.
- Behaviour became more consistent and the burndown charts more reliable. This accuracy helped develop confidence in Jira whilst providing accurate Sprint status to stakeholders outside the team which built trust.



#5. AGILE PROJECT MANAGEMENT



Challenge & Impact

- PMO had previously reported Earned Value based on days completed versus estimated days from high level requirements.
- Tracking between High level requirements and lower level requirements (User Stories) was inconsistent, thus there was no way to track growth or decline on backlog. It was being managed & reported in accordance to their Waterfall project governance.

- The PMO Team Challenged the reasons as to why Earned Value was important on Agile Project. Training and Coaching on the fundamentals of Agile project management provided guidance on alternative Release Tracking options.
- Moving from a 'plan-plan-do' approach to the 'plan-do, re-plan-do, re-plan-do...' approach was a key change for tracking Agile Projects.
- The Release Burndown Chart, which tracks growth and de-scoping along with completed work was introduced to the team.
- The next release would see Jira set up to track all the requirements from high level estimates through to completion enabling automatic Release Burndown Chart generation.



#6. SPRINT TESTING



Challenge & Impact

 As Testers and Developers merged into a single Scrum Team, concerns relating to maintaining their high quality Software Solutions and ISO Certification were inevitable.

- Establishing a 3 tier Definition of Done (User Story, Sprint and Release) provided clarity around ownership of testing tasks, both within the Sprint and outside the Sprint.
- Discussions about Definition of Done strategy focused on moving items from Release Done to User Story Done over time. Establishing a strategy for executing tasks earlier in the development cycle is essential for maturing their Agile practices.

- ✓ The Scrum team could not execute 'Release Done' testing due to specialist skills that didn't exist within the team. The merits of putting these skills inside the team were discussed.
- The Scrum team were trying to be Agile in a Waterfall organisation. Restructuring to merge Test and Development departments represented a large change so an interim solution was architected:
- A "Pop-Up-Agile-Organisation" concept was introduced where a modus operandi could be established for Agile projects to separate Agile teams from the Waterfall organisation and supporting them in an Agile way from line management, process and hierarchal perspectives.



#7. AGILE VISION



Challenge & Impact

- Management needed a clear Agile Vision to assist them in driving an Agile Transformation, defining what was driving them to be Agile and what their Agile Vision was would ultimately help with alignment and implementing lasting culture change.
- Developing a formal change management plan to accompany an Agile Vision could further align the organisation and secure resources for completing a Transformation.

- Creating an Agile Vision would help massively to drive a Transformation of the scale.
- Senior Management were in agreement that this would aid Agile adoption with greater ease and understood the merits of approaching this transformation as a resourced change management initiative.
- A roadmap was developed outlining a change management plan for undergoing this large scale change which would drive a successful Agile Transformation to develop greater efficiency, agility, Customer value and Employee Satisfaction.

