

Using Plandek to track and replicate high-performing engineering teams

Sharing success across teams: Plandek at a North American financial software company

Case Study

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About Plandek

Plandek is an intelligent analytics platform that helps software engineering teams deliver value faster and more predictably.

Celebrated by Gartner and Forrester as a 'leading global vendor', Plandek mines data from delivery teams' toolsets and gives them the opportunity to optimise their delivery process using both intelligent insights and predictive analytics.

Co-founded in 2017 by Dan Lee (founder of Globrix) and Charlie Ponsonby (founder of Simplifydigital), Plandek is based in London and currently services the UK, Europe, the Middle East and North America.

Learn more about Plandek here: The Plandek Difference

About the client

This software company situated in North America sells SaaS financial software to enterprise clients globally. The technology team operates a scaled Agile framework. Teams are geographically distributed and are growing rapidly.

The experienced technology management team is committed to using end-toend delivery metrics to empower engineering teams to self-improve over time and to have a consolidated view across teams in order to share success.

Key Results for the client



Cycle Time for Stories was found to be 34% shorter in highperforming teams than others. This data, surfaced using Plandek's intelligent analytics, helped to set a benchmark for healthy Cycle Time for Stories across the organisation.



Certain metrics – including First Time Pass Rate and Flow Efficiency – were also identified as highly descriptive of high-performing teams, and the client will use them each as guides for continuous improvement.



Plandek's analysis found that high-performing teams had well-managed backlogs, enabling them to significantly reduce their overall Cycle Times.

1.

Plandek's metrics initiative

The client was particularly interested in understanding how to measure and document the workflow habits of high-performing teams. By surfacing these insights, Plandek could enable other teams to apply relevant metrics and replicate success.

As such, the objectives of the Plandek metrics initiative are:

1. To find a balanced set of metrics that characterise a 'successful' Scrum team, and to then replicate this success across teams.

2. To encourage all teams to be data-led in their delivery and to create a data-led feedback cycle for teams to continuously improve.

3. To ensure that the metrics process is bottom-up and not top-down, meaning it's team-led and not management-imposed.

4. To create freedom for teams in selecting metrics to ensure a balance of some prescriptive metrics as well as the freedom to choose at a team level.

5. To improve the quarterly review process by underpinning it with hard data and less anecdotal comment.

2.

Getting the client started with Plandek

Using metrics to track and drive the effectiveness of your delivery capability

Plandek works by mining data from toolsets used by delivery teams (such as issue management, code repos, and CI/CD tools) to provide end-to-end delivery metrics and analytics. These insights enable organisations to optimise software delivery dependability, risk management and process improvement.

Mining data from multiple toolsets used across the SDLC creates a unique perspective, enabling Plandek to identify bottlenecks and opportunities for improvement throughout the design, development, integration, test and deployment processes.

Identifying a set of metrics that can determine success

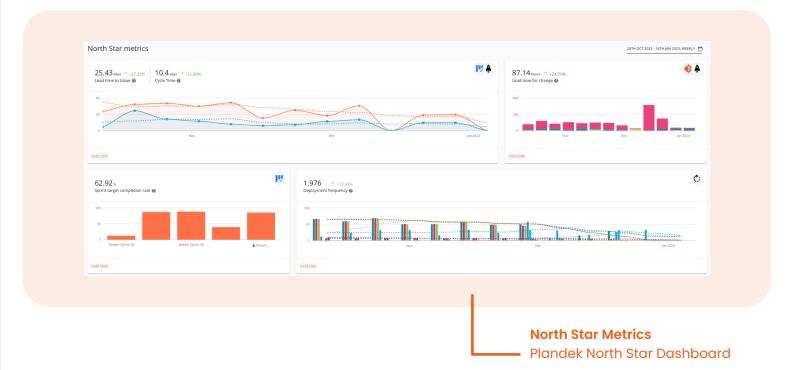
Plandek can surface a vast range of metrics. The Plandek Customer Success team worked closely with the client to track the data footprint of the identified 'high-performing teams' to identify those metrics that best explain their success, in terms of velocity, dependability and quality.

From this analysis, the client could start to see a balanced set of Agile delivery, engineering and DevOps metrics that most closely explain the success of the high-performing teams.

This metric set formed the basis of the 'Shared Success' metrics that the client socialised with all teams (via customisable Plandek team dashboards) to form the basis of their team-level self-improvement process.

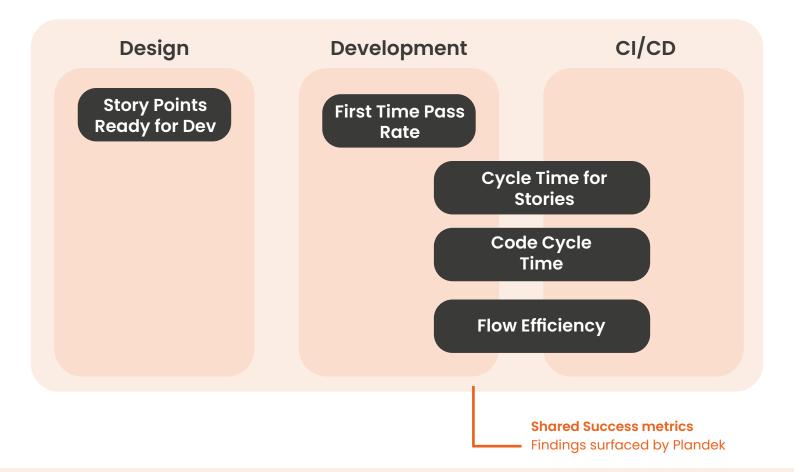
Teams could supplement these shared metrics with additional metrics of their own that helped them track and improve particular delivery challenges unique to the teams themselves.

Each Scrum team – and related Scrum Master and delivery manager – configured their Plandek dashboards to surface these metrics, so that they could be tracked and analysed in daily stand-ups, Sprint retrospectives and management review meetings.



The client's Shared Success metrics

Plandek was used to analyse the last 24 months of data for the high-performing teams, all of which was surfaced from Jira, Code repos and Jenkins. The metrics found to be most highly correlated and deterministic of these high-performing teams are shown below.



Cycle Time for Stories

Shared Success metric

Cycle Time is highly descriptive of high-performing teams. Highperforming teams had up to 34% shorter Cycle Times for Stories than the collective organisation average (when working in comparable situations).

The Plandek dashboards allow each team to closely analyse their own Cycle Time and to identify opportunities to further reduce it. As per the example on the next page, Plandek's Cycle Time metric view allows teams to understand time spent in each Ticket status within the development cycle.

The flexible analytics capability and powerful filtering allows analysis by Status, Issue Type, Epic and any other standard or custom Ticket field. These are then all plotted over any time range required.



Flow Efficiency

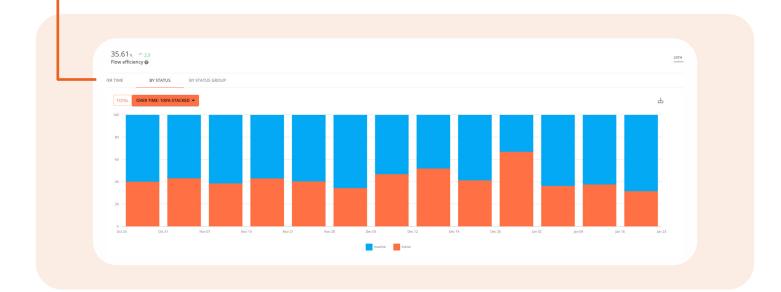
Shared Success metric

Flow Efficiency examines the proportion of time Tickets spend in an 'active' versus 'inactive' status.

Flow Efficiency analysis enables Team Leads to isolate and analyse each inactive status in the workflow and consider if there is scope to reduce or eliminate it. The analysis shows the relative size of each inactive status opportunity in terms of time spent in the inactive state and volume of Tickets affected.

High-performing teams were found to have markedly higher rates of Flow Efficiency: >50% versus the organisation average of ~30%.

Typical opportunities to remove inactive bottlenecks included time spent with Tickets awaiting definition (eg. Sizing) and Tickets awaiting QA. When the wait time for QA was considered excessive, delivery managers reconsidered QA resource allocation by team.



Flow Efficiency Plandek Delivery Dashboard

Code Cycle Time

Shared Success metric

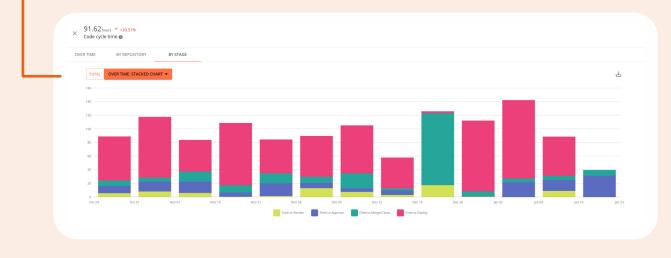
Code Cycle Time is a popular metric for DORA metrics fans. Plandek found that this metric was strongly correlated with the client's high-performing teams.

Code Cycle Time looks at all of the completed Pull Requests (eg. closed, merged, declined, etc.) within the specified time range and shows the average hours from opening to completion.

It also provides deep insight into the **different stages that a PR goes through**:

- l. Time to Review: from open to first comment or review.
- 2. Time to Approve: from previous stage to approved.
- 3. Time to Merge/Close: from previous stage to merge/close.
- 4. Time to Deploy: from previous stage to deployed.

Pull requests were identified as a key bottleneck. As such, they are considered a key area to potentially save time and reduce overall Cycle Time. Significant variations in time to resolve PRs were seen between high-performing teams and average-performing teams.



First Time Pass Rate

Shared Success metric

First Time Pass Rate is another metric that was identified as deterministic of team success. This is because it is a key driver of Cycle Time improvement.

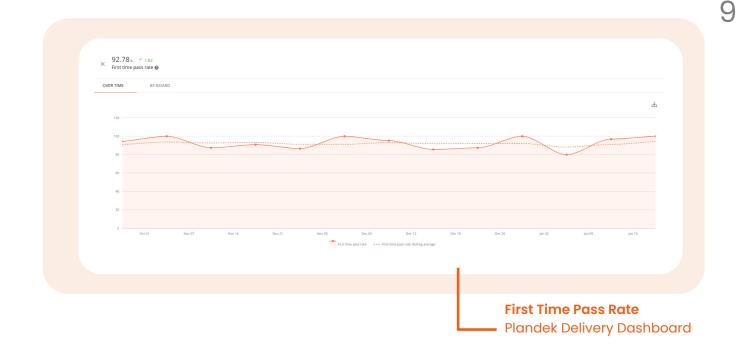
First Time Pass Rate not only increases velocity and reduces QA burden: it is also symptomatic of a productive relationship between BAs, engineers and QA, showing well-managed backlogs, well-defined Tickets, and a smoother flow of Tickets through the development process.

When the client drilled-down using the Plandek 'Explore' function, they could see variations in First Time Pass Rate by board, Ticket and individuals within teams.

View Plandek's First Time Pass Rate visualisation on the next page.



Code Cycle Time Plandek Delivery Dashboard

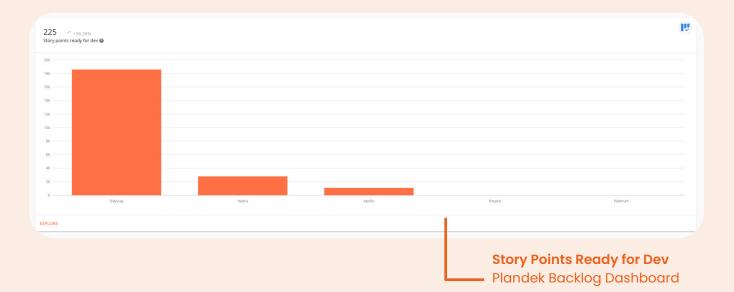


Story Points Ready for Development

Plandek's analysis found that differences in team backlog was another major marker of high-performing teams.

Teams with well-managed backlogs – for example, with at least two Sprints' worth of Tickets prepared and ready to process – significantly reduced their Cycle Times. As such, the simple metric of Story Points Ready for Development was a Shared Success metric adopted widely across all teams.

Shared Success metric



5.

Sharing success across teams

Metrics-led continuous improvement in software delivery

The consistent aim of the client is not to measure for measurement's sake – instead, it is **to find a better way to share success across all teams**.

Sharing success is difficult when it is predicated on anecdotal feedback and conversations between Team Leads and Scrum Masters. Our clients find that they can significantly narrow differences between teams over time by focusing on a balanced set of metrics that have empirically found to be determinant of success.

The Shared Success metrics are shared by – and discussed across – teams via a customisable Plandek team dashboard. Teams can then also track additional metrics of particular interest to them in their own Team dashboards.

The whole exercise is best owned and championed by Scrum Masters and Team Leads. This kind of data-based performance exploration should never be seen as a 'top-down' measurement exercise.

As always, Plandek's Customer Success team plays an important role in engaging at team level to ensure this spirit and approach was always maintained.

Contact Plandek

Want to learn more about Plandek?

<u>Sign up for a free account</u> today to explore the platform or <u>book a custom demo</u> with our team.