August 2024


# BENU Uses Scrum with Kanban to Drive Product Innovation and Customer Satisfaction increase of more than 50%

BENU

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CASE STUDY

## The Company

BENU in the Netherlands is a prominent healthcare and pharmacy organization. It operates a network of pharmacies and provides a wide range of healthcare services and products, including prescription medications, over-the-counter drugs, and various health products and health services. BENU delivers high-quality pharmaceutical care and personalized health advice to its customers, aiming to improve overall health and well-being. The organization focuses on being customer-centric and innovative in the healthcare sector.

## The Challenge

At BENU there was a team of 15 people working on developing their customer facing application Mijn BENU. The application is the product that their customers use to look at their medication history, place and refill orders, track and trace orders, get in touch with their pharmacy and more.With more than 400.000 Mijn BENU accounts, they wanted to make it more user friendly. While the basic - must have- functionalities for the customer were realized and the number of Mijn BENU accounts were growing every day, the team wanted to focus on the more user friendly, customer-centric features. The team was not focused on customer needs, as they were mostly fixing bugs and working on optimization. When they would add new features it took a long time and they were not incorporating customer feedback. Their releases were very unpredictable and it took months for the team to get something new delivered.

While they were using Scrum, they were not embracing the Scrum Values and they were basically going through the motions. During Sprint Retrospectives they barely identified improvements and just complained. Stakeholders were lacking patience with the team due to slow delivery of new features. The lack of customer interaction and lack of focus were negatively impacting their product innovation capabilities. In fact, the internal stakeholders determined the Product Backlog. There was a lot of Work in Progress (WIP) and limited transparency of the work as the team members were very siloed. The organization had an ambition to grow and their leadership knew something needed to change.

## The Solution

BENU turned to a partner, Prowareness, who helped them navigate the needed changes and transform their use of agile practices. Ivar Rameijs, Agile Coach at Prowareness went in to work with the Scrum Team to implement Scrum with some Kanban practices. They chose this approach because there were Kanban practices to help better understand the workflow and to discover where things were not running smoothly. This approach would address the frustrations, not only for the team, but also for the stakeholders and help with handling of dependencies. He started by asking the team 2 questions:

1. What is your biggest frustration?
2. When are you successful?

Ivar did an analysis based on their feedback and realized there was no consistent process and no customer focus. So he worked with them to make it consistent and predictable. Ivar was the Scrum Master and they had one Product Owner and 13 Developers on the team.

### Simulation Game

They ran a simulation game to understand the effects of visualization and having a lot of work in progress (WIP). This made them realize they should start making their work more visible and be more transparent regarding what's going on. Previously, their board only had "To Do," "Refinement," “In Progress” and "Done" columns, along with a separate column for blocked work. They improved the team's understanding of the workflow by adding a column for every important state work flows through, e.g. “development”, “code review” and “testing”. They also made sure that blocked items were made visible on the board in the corresponding work state (and not on a separate column), ensuring transparency for everyone. Additionally, they made dependencies visible so that they could be managed by the team.

The simulation game (FeatureBan) taught them another lesson: focus on finishing work before starting new work. They understood that it was important to finish work, which meant that blocked items had to be resolved as quickly as possible. A clear definition was needed to determine when work started and when it was finished. Explicit policies were needed to determine when, for example, an item was considered done. No commitment could be given to a goal or item where dependencies weren't managed properly (e.g., not available during the Sprint). If they wanted to add new work to the Sprint Backlog during the Sprint, it had to be discussed with the whole team because it had to be finished by the end of the Sprint. During the Daily Scrum they walked the board from right to left to focus on finishing work.

During the simulation game, they experienced some of the positive effects of limiting Work in Progress (more focus, better overview of work, higher predictability and more collaboration). That experience was something that Ivar wanted them to feel in real life as well. Therefore he challenged them: work on only 1 item during a Sprint with the whole team (as opposed to 10-12 items). They called it the 'experiment'. They learned a lot in this Sprint. This experiment enabled more collaboration within the team, because the whole team had the same focus. They now had a better understanding of each other's capabilities and skills.

They completed the item during that Sprint, which was unusual for them at the time. Typically, it would have taken multiple Sprints because the Business Analysts (BAs), who were primarily responsible for 'preparing' items for the next Sprint, weren't working on the same item as the Developers. During the experiment they were working on the same item. As a result, the BAs felt more involved and a part of the Scrum Team, working toward the same Sprint Goal as the rest of the team. They realized that there was no need to know 'everything' before starting to work on an item.

Sometimes people had 'nothing' to do. Previously, they would pull work onto the Sprint Backlog, but now they couldn't due to the agreement they made for this experiment: focus on 1 item. At first this was confusing, but it made them aware that they could use this time to write code together, learn something new, work on technical debt or pipeline improvements. This helped to improve collaboration.

They also realized that they had a rather large team, with most disciplines represented by two people. Working with 15 people on one item was not efficient, so they decided to split into two sub teams and work on two major items per Sprint, which they referred to as a "tosti" (grilled cheese sandwich). Each "tosti" had its own multidisciplinary sub-team, and they committed to their "tosti" as a sub-team. This approach essentially created two Sprint Goals. This helped the teams to finish an item before starting to create a new one. Working with a clear focus each Sprint resulted in reaching their Sprint Goals 3 times in a row, which was a big improvement for them. Recently, the team split into two separate Scrum Teams, building on those sub teams. This has resulted in even more focus and improved ownership.

## Sprint Goals

Another initiative aimed at creating a consistent and predictable process included defining a Sprint Goal before Sprint Planning. Previously, the team would pull work items from the Product Backlog onto the Sprint Backlog, ensuring everyone had something to do, and then create a Sprint Goal that often had no meaning for the customer, product, or stakeholders. Instead, they started Sprint Planning with a Sprint Goal that was related to customer, business value or result they wanted to achieve. The Daily Scrum focused on the Sprint Goal instead of going through a lot of tasks.

One of the most significant learnings was that they did not have to write out all the requirements and have the solution figured out before developing it in a Sprint. They discovered that optimizing current features required a different approach than building new features. For optimization, everything could be sorted out before development. However, with a new feature, it was almost impossible to know everything in advance and that would take a very long time, mostly based on assumptions. The complexity of new features meant that they had to accept that not everything could be known and that by starting development, they would learn and adapt. They understood better that they had to break the habit of taking a waterfall approach in Sprints for new features and technical improvements. This resulted in shorter lead times due to less time spent on over-analyzing, running spikes, holding multiple refinement sessions for one item, and trying to gather all requirements from stakeholders.

## Shift from optimizations to customer features

The Scrum Team needed to make a shift from optimizing the application to actually creating customer features. The following insights helped them make that shift:

**Product Backlog Ownership:** Stakeholders previously determined the Product Backlog, leading to a lack of focus and understanding among team members about why they work on certain items. The Product Owner took ownership of the Product Backlog, Product Goal and Sprint Goals with the Scrum Team and looked to stakeholders for feedback.

**Clarifying Product Purpose:** The Product Owner was asked to explain why the product exists and when it would be considered successful. This resulted in identifying two customer groups: pharmacies and pharmacy customers, with the goals of organizational growth and customer ease. And also pharmacies supporting the Mijn BENU environment to the customers.

**Focused Prioritization:** Items and stakeholder requests were removed from the Product Backlog if they were not aligned with the customer groups and the Product Goal to facilitate better decision-making and stakeholder management.

**Competitive Edge:** They recognized that delivering features that competitors have is essential, and delivering distinctive features was crucial to be competitive.

**Visualizing Customer Requests:** Visualizing customer requests on their Scrum board ensured that at least one customer-related item was selected in each Sprint Planning, providing visibility into the pipeline of customer ideas and requests.

**Customer Collaboration:** Despite some customer requests being assumptions, initiatives were put in place to improve customer collaboration, particularly with pharmacies, aiming to enhance their experience by reducing manual tasks and improving communication with customers.

**Importance of Customer Feedback:** The need for better understanding of customer needs, initiatives around customer collaboration were highlighted as crucial for product success.

## Current initiatives around customer collaboration

Prototypes of the new menu structure of MijnBENU were recently tested by customers. Interviews with two different customers took place, where user insights were gathered.

Customers were presented with three different fictitious scenarios, each with its own search query. The tasks included changing the quantity of medication via the prescription refill service, looking up allergies, and finding tips on quitting smoking. Additionally, customers were asked for their opinions on the layout of pages and discussed wording, definitions, and customer expectations. For example: What would you expect to find behind the 'settings' button?

Customers were taken on a one-hour journey into the customer experience. During the research, customers were asked to think out loud, leading to interesting and amusing moments, and most importantly, a better understanding of the customer. The team also built a feedback pop-up to gather feedback from customers after they used a particular feature. Currently they are gathering feedback and incorporating analyzing that feedback into their way of working, closing the feedback loop.

## Sprint Reviews

As part of the experiment Sprint, the Scrum Team worked on a new feature that the stakeholders could test during the Sprint Review. Typically, the Product Owner would share screenshots of their deliverables in a PowerPoint presentation. But this time, they prepared smartphones and tablets to be used by the stakeholders.

Stakeholders were enthusiastic, they were able to give feedback based on their own experience and were much more engaged.

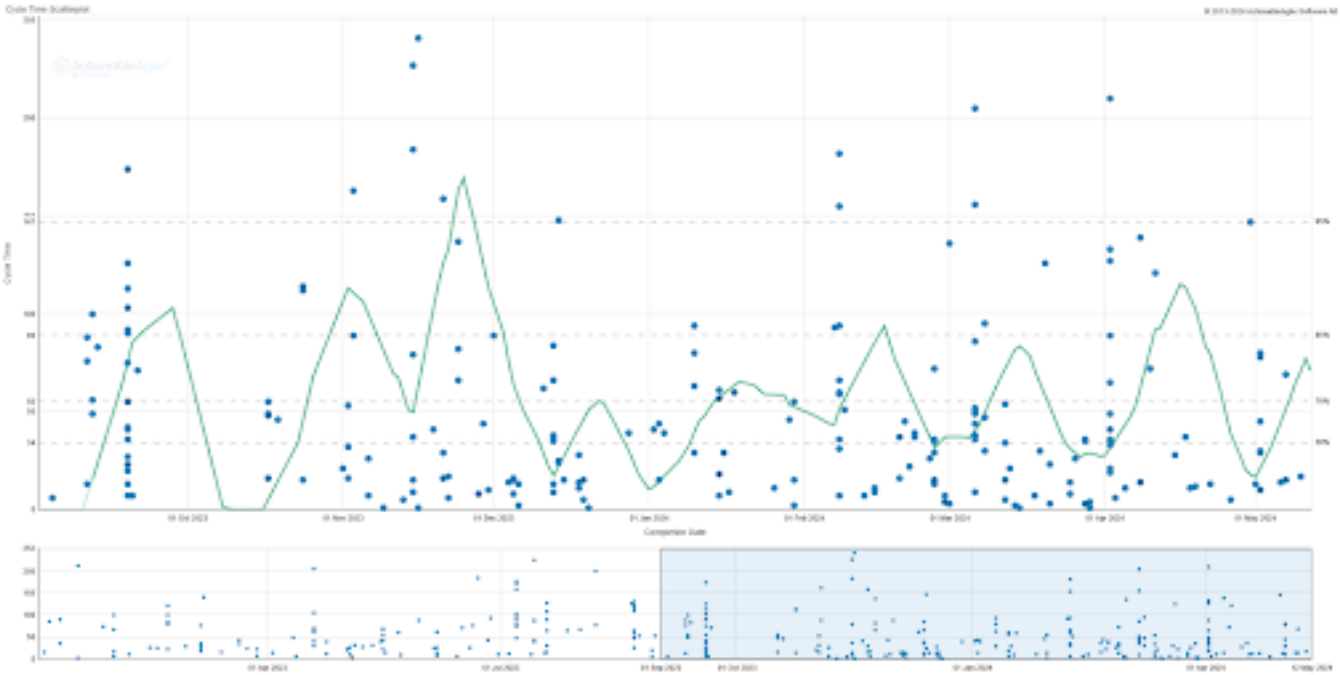
From that Sprint on, the Sprint Review changed from a demo session into a working session with the stakeholders. Eventually they strive to invite customers in some way.

## Use of Flow Metrics

The team used Flow Metrics and continues to use them to help improve their service delivery:

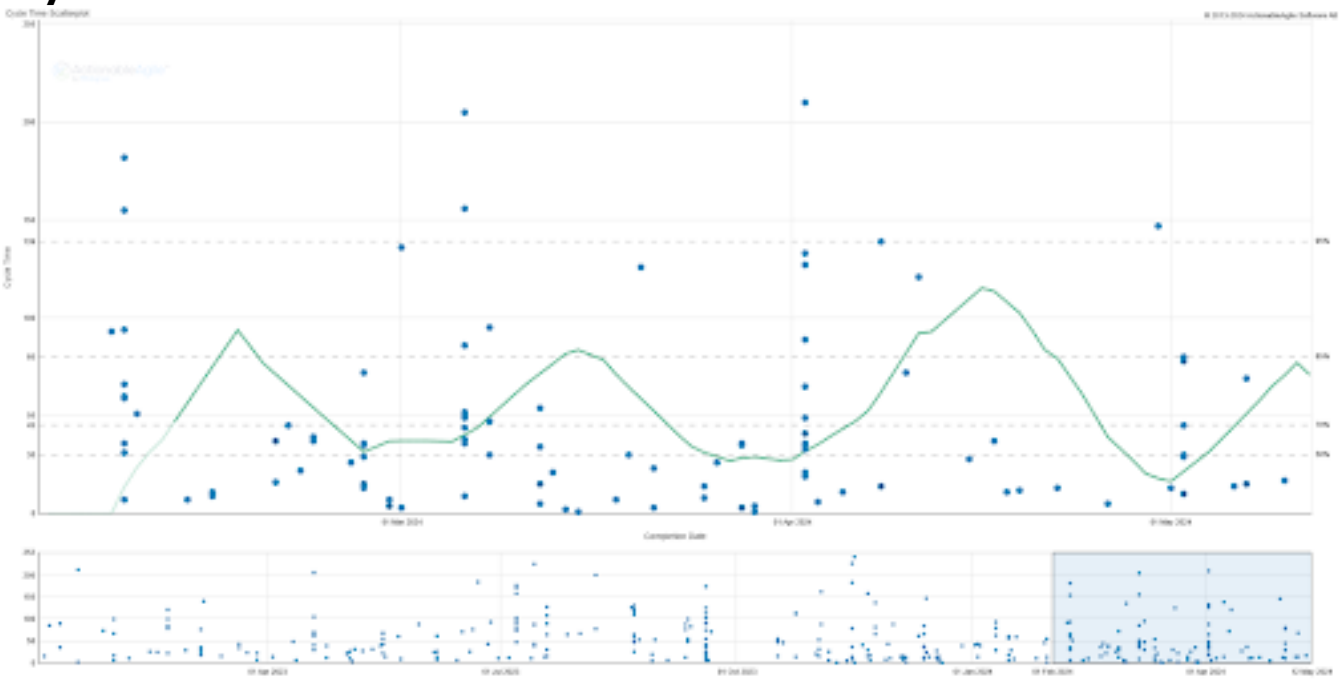
## September 2023:



**Cycle Time:** The time between creating a work item on the board until it's released*
Cycle time reduced. 85% chance of finishing work in 93 days (January 2023), reduced to 89 days (September 2023) and further to 80 days (February 2024).

Variation decreased, therefore there was higher predictability in Output.

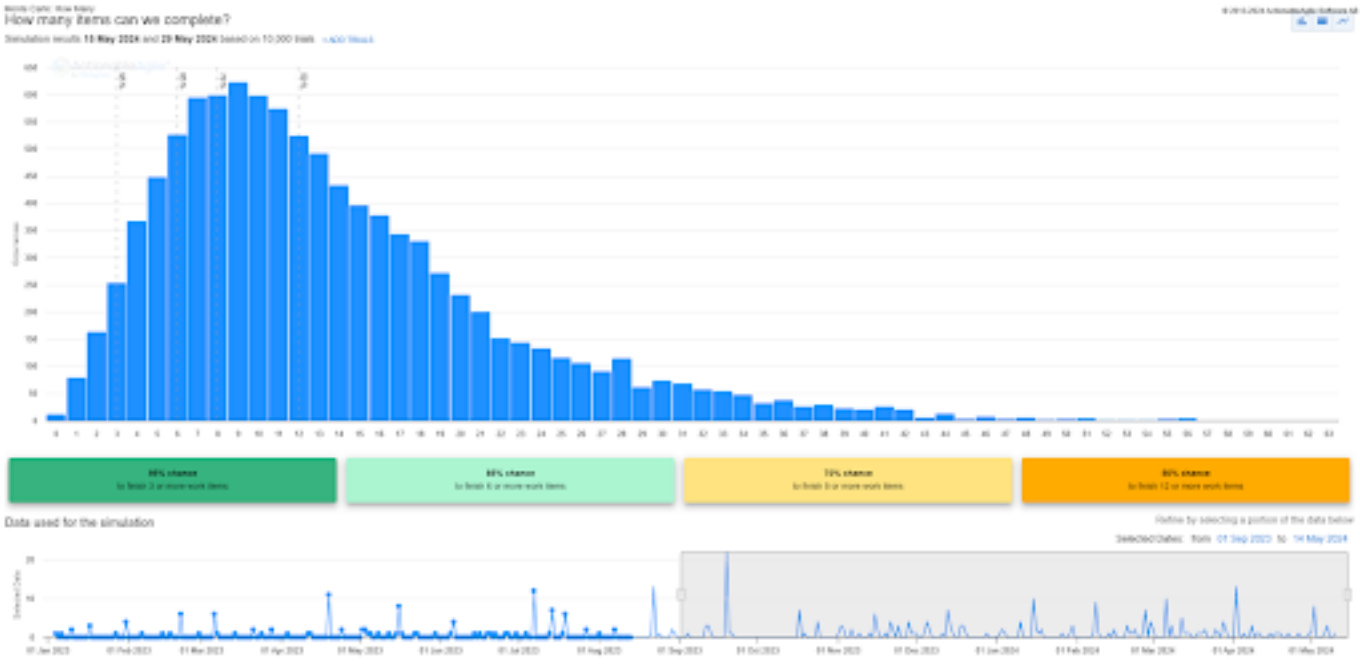
## February 2024:



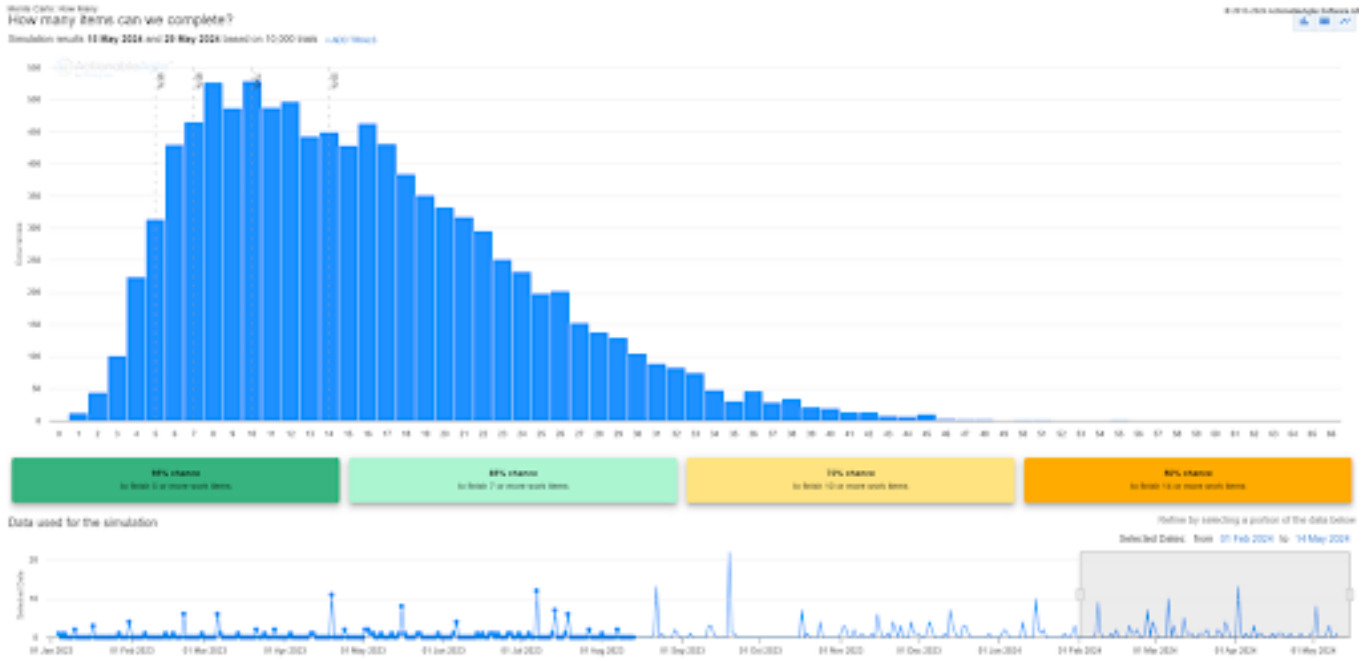
 

**Throughput**: The amount of PBIs delivered per two weeks*
Capability to deliver improved from 3 items per two weeks (September 2023) to 5 items per two weeks (February 2024) with 95% chance. Bug fixes were not included in this Throughput.

**September 2023:**




**February 2024:**




Software used for analytics: ActionableAgile ActionableAgile™ - Products and services to help you improve flow, be predictable.

**Work Item Age:** They used a concept called Time Guillotine: Work items that spent a X-amount of days in a certain board column, automatically got a certain ticket color. Which made them stand out and were therefore subject for discussion. E.G. items in the 'new' column, got a color after 180 days, to help the PO keep the Product Backlog up-to-date. And items in a ready column, got a color after 30 days. This meant that for some reason these items were selected as viable options to deliver, but got surpassed by other items. Discovering these reasons helped the team in shortening their cycle times and working on the right items.

**Work in Progress:** They don't have a set Work in Progress Limit (yet). But by focusing on just a few items at a time (tosti's for example), the team is limiting the amount of items they have in progress at the same time. With that, they influence Cycle Times and Throughput.

*Definitions used by the MijnBENU team.

## Falling into old habits and getting back out of them

Most of the mentioned changes were made within the period between September and December 2023. In January 2024 they fell into old habits and began to lose focus and that lasted until March 2024. There were a few issues that caused this that they have learned to avoid in the future:

1. During their winter holidays, they extended the Sprint to 4 weeks, instead of 2, due to team members and stakeholders having days/ weeks off. The Sprint Goal for that Sprint was something they called 'Mixed Grill'. There were a lot of small items, mostly for one discipline only, bugs to fix, small optimizations etc to work on. Everyone was able to work on something without dependencies. It was okay for a time period where a lot of people are on vacation. Unfortunately, this behavior continued in the following Sprints with no clear focus as a team, commitment to items (instead of goal(s)) and they had unfinished work every Sprint.
2. During that time there was also a change in Product Owner. So they had to get to know each other as well. And were struggling to work with Sprint Goals.
3. They worked on reducing login problems for multiple Sprints, which is a good cause for the customer, but it was mostly Back-end work. They also worked on a new login portal, which was mostly Front-end work. Which meant that the team wasn't collaborating on the same goal. And therefore the old islands within the team emerged again.

It was a hard time being a Scrum Master for Ivar, noticing that they fell back into old habits. However, due to the type of work that had to be done and changing circumstances around the Product Owner, it was hard to change.

In order to resolve these problems and get the team back on track, Ivar worked with the Product Owner to make sure there were features on the Product Backlog that were asked for by customers that could bring the team back together and they used their "tosti" approach again. Ivar also started to ask the team members again what their biggest frustration was. And one by one, they responded: lack of focus and not working as a team.

Those initiatives led to a change in the last Sprint of March 2024; they were working on “Tostis” again. That Sprint, they had the agreement to work on 2 items only. If one was finished, a new item could be pulled on the Sprint Backlog only if that item could be finished within the Sprint. Ivar also ran another simulation game focused on WIP limits.

## Results

After embracing this improved way of working using Scrum with Kanban practices, they realized some significant outcomes. A significant milestone was when they first achieved their Sprint Goal three times in a row, and they achieved a newfound unity and consistency in their processes. They have continued to be consistent. As a result of their hard work, customer satisfaction ratings improved from 2.1 (January 2023) to 3.9 in the App Store and from 2.1 to 4.1 in Google Play store (June 2024).

The following improvements were made in their Sprint Reviews:

- There was a better understanding of the complex domain, recognizing that not all information for features can be determined in advance, leading to the adoption of the mantra "Prefer Progress over Delay for Perfect Information”
- The Sprint Review evolved from a slide deck demo to stakeholders experiencing new and optimized features in real time and providing feedback to Developers.
- Customer feedback was brought directly to the team instead of being solely managed by customer support
- More stable delivery (higher predictability), reduced cycle time from 93 days to 80 days and improved delivery from 3 to 5 items per 5 weeks.
- Significant progress was made in test automation and pipeline stability moving toward using Test Driven Development

Another notable change is the team's closer collaboration with customer support, which has led to a reduction in login problems from 2% to less than 0.7% of the population. This decrease in issues has resulted in fewer customer complaints and therefore they are spending 4-6 hours per week on support issues vs. 32 hours per week.

Regarding the team’s Sprint Goals, by working as whole team to achieve them, this resulted in:

- Improved collaboration
- Commitment to a goal
- Transparency about the lack of a clear Product Goal
- A better understanding of each other's specialties and the flow of work
- Insight into where work was running smoothly and where it was not
- Better management of stakeholder expectations, as stakeholders understood what they might have by the end of the Sprint

The team has also adopted a deeper understanding of Scrum and has incorporated Kanban practices into their workflow. This has given them a better overview and insight into their workflow, including identifying blockers, dependencies, and the type of work being done. They are now more focused on finishing work and have a clearer understanding of what 'Done' means. Additionally, there is now an explicit focus on balancing work on new features, optimizing current features, and ensuring platform stability.

The team has embraced the Scrum Values. They encourage team members to address issues openly if something isn't working. Collaboration has also been emphasized, with efforts to bridge gaps between different disciplines and teams. Customer awareness is another key improvement, with a clear understanding of who they are working for and why. They are currently working on deepening that understanding by inviting customers to share their feedback with Developers and stakeholders to help optimize their product development.

## About Scrum.org

Scrum.org, the Home of Scrum, was founded by Scrum co-creator Ken Schwaber as a mission-based organization to help people and teams solve complex problems. We do this by enabling people to apply Professional Scrum through training courses, certifications and ongoing learning all based on a common competency model.