# F500 Manufacturer Accelerates Product Development with Sigma

## Use Case: Product Development Optimization

The Power & Performance Leads (PPL) team at one of the largest semiconductor manufacturers in the U.S. relies on **millions of data points housed** within Snowflake when building custom data center solutions for their customers. The PPL team is responsible for predictions, modeling, product definitions, locks, customer request matches, tuning, optimization, and verification of the solutions. This team's role is mission critical because it can quickly become **a multi-million dollar problem** if a faulty solution is sent to a customer.

The PPL team uses Power BI to score data across many dimensions and compare it against performance targets. Due to the volume of data, **reports have to be launched at the end of each day and reviewed the following morning**. These reports only provide the high-level picture though. If a variant falls outside the acceptable window, data has to be **extracted into several Excel worksheets** for analysis because the PPL team lacks the technical skills needed to use Power BI. This disjointed workflow wasn't scalable and led to:

**1**    Bottlenecks, wasted time, and **slow product cycles.**

**2**    Unplanned ad hoc requests and constant reprioritization of tasks, which often became chaotic and led to **analyst frustration.**

**3**    An **overworked PPL team**, logging hours in the evenings and on the weekends.

With Sigma, the PPL team can now **immediately access row-level data** as soon as an issue is identified and quickly **analyze all of the data together** via a familiar spreadsheet-like interface, resulting in accelerated product cycles and much happier employees. The company is now in the process of deploying Sigma across all of the product teams and leveraging Sigma for cost modeling.

### Direct access to Snowflake

Sigma was purpose-built for Snowflake and cloud data warehouses. The PPL team now has direct access to live data in Snowflake so they no longer have to wait for extracts from the BI team and the **data stays safe in Snowflake** – no more stale extracts or data sprawl.

### Unlimited scale and speed

Sigma is a cloud-native solution delivering unlimited scale at cloud speed - no summaries or aggregates necessary. The PPL team can now **easily analyze and filter all of the testing data in a single pane,** eliminating disjointed datasets and minimizing the potential for errors.

### Self-service data exploration

Sigma's **spreadsheet interface** makes iterative ad hoc analytics possible for anyone. Today, the PPL team quickly **analyzes data in Sigma**, just as they had in Excel, so they can easily **address potential issues before they become serious problems.**