

ESG Economic Validation

Analyzing the Economic Benefits of Starburst Enterprise

By Nathan McAfee, Economic Validation Analyst
April 2022

Executive Summary

Secondary data, which is data that has been collected through primary sources and can be reused for mining and research, represents one of the most valuable assets that many organizations own. However, the value can only be realized when that data can actually be queried for insights and opportunities. This productization of data, for example as part of a data mesh, will both increase revenue in current operations and open entire new lines of business that specifically target concepts that resonate with a customer base, especially compared to traditional data centralization strategies such as those built around a data warehouse.

ESG validated the economic impact of Starburst Data and found that the solution greatly impacts the ability to gain insight from secondary data while reducing the time, cost, risk, and complexity associated with traditional data analytics, all while giving a more complete view of the data.

ESG’s models predicted that Starburst Data can **reduce the costs of data analytics by up to 53%** and **time to insight by up to 90%**, as well as enable an **increase in revenue of up to 2%**. This includes the ability to expand data access to more employees, allowing them to harness the value of curiosity in determining new business opportunities.

Validated Benefits of Starburst Data Mesh

Reduction in time to insight from weeks to hours

up to
90%
increase in
speed to insight

up to
53%
lower cost of data,
infrastructure, and FTEs

up to
2%
increased
revenue

Introduction

This ESG Economic Validation focused on the quantitative and qualitative benefits organizations can expect from leveraging Starburst Data to access and query distributed data. ESG validated the solution as well as the projected savings and benefits that Starburst customers could expect to realize and created a modeled scenario that compared Starburst to a traditional centralization strategy around a data warehouse.

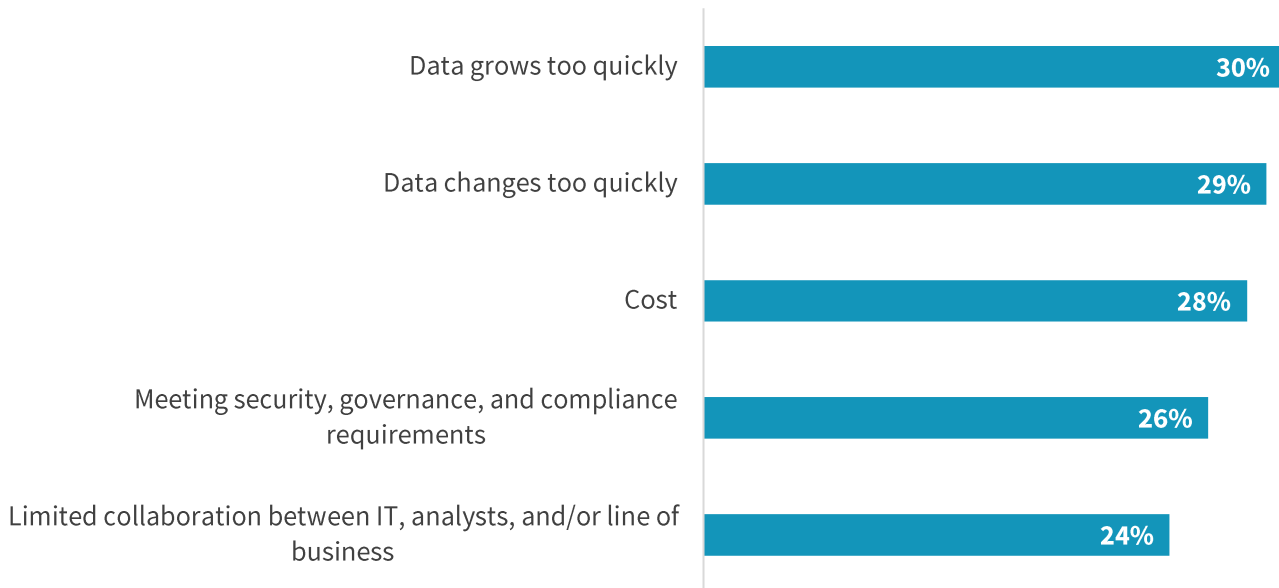
Challenges

Data size, sources, types, and locations are increasing at a rate unseen in history. Once data is stored, it is considered secondary data. Analyzing this secondary data enables organizations to identify patterns and key insights that will help them predict the best path for them to maximize future revenues, reduce costs, or minimize risk. However, gaining full and accurate insights from secondary data traditionally involves a centralization strategy, which requires vast quantities of data to be transported, translated, and moved across technology and geopolitical boundaries, ultimately landing in a data warehouse or data lake. These challenges increase the time it takes to gain insight from data and injects risk, all while limiting an organization’s ability to make decisions on a complete and accurate data set.

ESG conducted research in 2021 and uncovered the top factors that prevent organizations from using their secondary data for business purposes. As seen in Figure 1, the top five reasons include explosive data growth, the speed of data change, the overall cost of moving and accessing data, data sovereignty and security concerns, and struggles to collaborate between IT and business units.¹

Figure 1. Top 5 Reasons That Prevent Companies from Gaining Business Insight from Secondary Data

What do you believe is preventing your organization from using more of its secondary data for business (i.e., non-protection) purposes? (Percent of respondents, N=360, multiple responses accepted)



Source: ESG, a division of TechTarget, Inc.

There is little question about the value held in secondary data. This value is just being obscured by cost, complexity, size, time, and location challenges. Many business opportunities are left unexplored due to these challenges, and some

¹ Source: ESG Complete Survey Results, [From Data Backup to Data Intelligence](#), January 2022.

decisions are made using only a subset of secondary data. The result leaves potential revenue on the table and, even worse, can leave a company exposed when strategies are determined without a full view of all data.

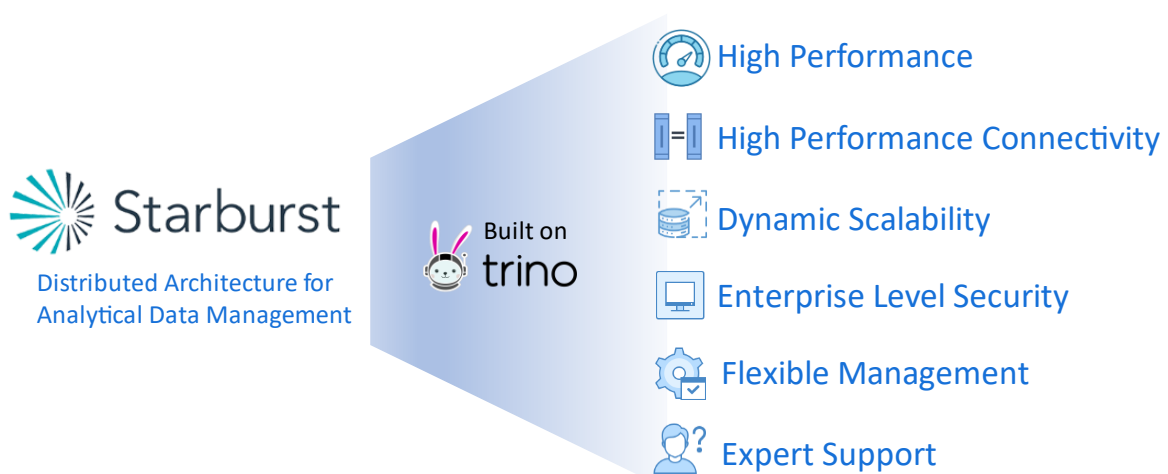
The Solution: Starburst Enterprise

Starburst Enterprise provides a single access layer to organizations’ data, regardless of location, format, or size. Built on Trino (formerly PrestoSQL), Starburst is the fastest SQL-based massively parallel processing (MPP) query engine available and enables a company to run analytics on data wherever it is stored. In its simplest form, organizations can implement efficient federated queries across all their data sources using Starburst. In more complex data environments and larger organizations, data teams have also looked toward the modern approach of a data mesh in order to ensure quality, reliability, and access to data across boundaries of data storage, data type, and domain expertise. Eliminating the need to move or copy data reduces the time it takes to gain insight from months to days and minimizes the costs and risk associated with moving data.

Key benefits include:

- High Performance – Organizations can query distributed data using SQL with extremely high concurrency.
- Scalability – By separating compute from storage, Starburst can leverage elastic cloud and on-prem resources to dynamically scale up or down to meet changing workloads.
- Connectivity – Starburst provides more than 40 enterprise connectors with high performance connectors including Snowflake, Teradata, and Oracle.
- Security – Kerberos & LDAP integration with global security for fine-grained access control and auditing. Data is encrypted and masked.
- Management – Easy configuration, combined with autoscaling, ability to deploy anywhere, and high availability, makes Starburst easy to manage.
- Support – Built by the original creators of Trino, Starburst is fully tested and supported with the latest fixes, security patches, and 24x7x365 enterprise support.

Figure 2. Starburst Enterprise



Source: ESG, a division of TechTarget, Inc.

ESG Economic Validation

ESG completed a quantitative economic analysis of Starburst Enterprise with a focus on the economic benefits that organizations can expect when utilizing Starburst to access and analyze secondary data.

ESG's Economic Validation process is a proven method for understanding, validating, quantifying, and modeling the economic value propositions of a product or solution. The process leverages ESG's core competencies in market and industry analysis, forward-looking research, and technical/economic validation. ESG examined publicly available case studies, ESG research studies, and ESG's internal analyst expertise to form the views contained in this economic validation. The qualitative and quantitative findings were used as the basis for a simple economic model comparing the expected costs of competitive methods of data analysis against Starburst Enterprise.

Starburst Enterprise Economic Overview

ESG's economic analysis revealed that Starburst Enterprise provided its customers with economic benefits in the following categories:

- **Accelerated time to insight** – Starburst provides a dramatic increase (up to 90%) in the speed of organizing, moving, preparing, and accessing data, which allows data scientists and business units to gain valuable insight from data faster than in the past and from a more complete set of data.
- **Reduced operating costs** – Starburst reduces infrastructure costs, FTE time needed to discover and prepare data, and support costs by an average of 53%.
- **Improved security and risk posture** – Starburst's ability to access data in its native location and format eliminates the movement and translation of data while keeping this data masked and encrypted.

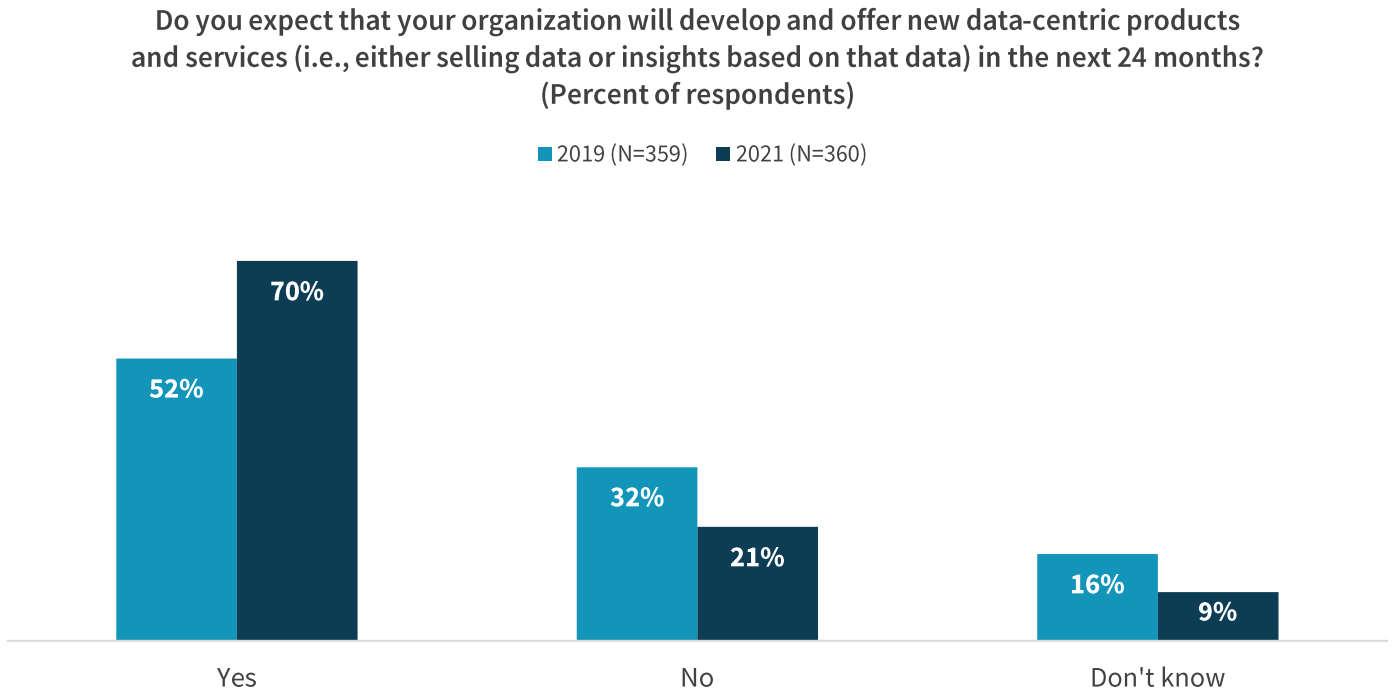


Accelerating Time to Value

Secondary data contains the trends and opportunities that can increase the profitability of many businesses. However, the ever-increasing density of data combined with the number of public cloud, private cloud, and on-prem data stores presents logistical, cost, governance, and security challenges for those trying to pull value from the data. Even with these hurdles, 70% of ESG research survey respondents said they will develop new data-centric products and services in a 2021 research study (see Figure 3).²

² Source: ESG Research Report, [The Evolution of Intelligent Data Management](#), January 2022.

Figure 3. The Percentage of Companies That Plan to Offer New Data Centric Products Increased from 52% to 70% (a 26% increase) Between 2019 and 2021



Source: ESG, a Division of TechTarget, Inc.

Starburst Enterprise capabilities to accelerate time to value include:

- **Faster insights** – Customer studies show the time between when a question is formed and when an analysis is completed is traditionally between 5 and 8 weeks when data must first be centralized in a data warehouse. With Starburst Enterprise, this entire process can be reduced to less than a single day, often to hours, **reducing time to insight by up to 90%**. Key functionality that enables this improvement includes:
 - **Elimination of the need to move or translate data** – Starburst can access data wherever it resides in whatever format it exists. Additionally, the simplification of this process enables organizations to gather insights, reducing the need for data engineers to collect, move, and prepare data for query.
 - **Validation when the idea is fresh along with fast fails** – Often in data analysis, an idea grows stale by the time that the data is prepared and available to query. The business value of insight diminishes with each passing week and can often become irrelevant by the time that a working data set is made available. Starburst customers will find remarkable business value in the ability to immediately query a full set of data when an idea is top of mind. This ability allows businesses to quickly identify and capitalize on seasonal spikes and business trends that would otherwise be missed in a competitive environment. Being able to fast-fail an idea empowers employees to evaluate hypotheses that otherwise may be ignored and to increase the likelihood of a quick thought **becoming a new business opportunity**.
- **Decisions made on more complete sets of data** – The cost, in both time and money, of consolidating all data for an analysis can result in queries being made on a partial set of data. The addition of disparate data types and locations can make it impossible to consolidate data to get a complete view. Starburst allows data of all types, locations, and sizes to provide an aggravated view to allow for the most inclusive results. When implemented as part of a data mesh framework, analysts across an organization can further benefit from the ability to discover,

consume, and share curated data sets created by domain experts from other parts of the organization and even third parties. This unique ability allows unrelated parts of an organization to function independently with the best possible quality of data, leading to even higher quality insights.

- **Increased revenue** – The opportunity to expand on current business as well as uncover potential new revenue streams lies in effective analysis of secondary data. ESG estimates that companies can **increase revenue between 1-2%** through the increased ability to mine complete and recent data with Starburst. This increase is enabled by:
 - Decisions that are made on more complete sets of data.
 - The increase in the number of employees that can access analytics through Starburst’s ability to simplify and streamline the preparation of data. More sets of eyes uncover more opportunities.
 - The value of curiosity. More hypotheses being tested results in more uncovered opportunities.
 - Better capitalization on trends and seasonal spikes.
- **Ability to enhance the capabilities of competitive solutions** – Starburst adds substantial value in environments where competitive data analytics platforms are already deployed. Starburst can help expand the data available for analyses by enabling access to all sources.

The Value of Curiosity

The ability to quickly validate an idea is valuable to a business. Additionally, the ability to fast-fail an idea allows for the quick testing of a hypothesis. This enables curiosity and uncovers trends and opportunities buried in data that might otherwise be undiscovered.



Reduced Operating Costs

Starburst Enterprise reduces an organization’s TCO by eliminating the need to move data across domains for analytics; cutting compute, network, and storage costs; and decreasing the FTE time needed to prepare data for analyses. ESG found that customers adopting Starburst can **reduce their TCO for data analysis by an average of 53%** through numerous benefit areas, including:

- **Lower infrastructure costs** – Eliminating the need to copy and consolidate data removes the requirement of additional storage space. It also eliminates the costs of moving data (caching) and ingress/egress of cloud data being moved for analyses, as well as the physical hardware costs related to the compute needs of the consolidated data store.
- **Reduced FTE time** – Data discovery is a major challenge for data scientists and takes the majority of the time in a traditional analysis scenario. Starburst reduces discovery time from weeks to hours, which lowers costs and eliminates most cases of stale and incomplete data that limit the value of queries. Starburst customers also report

Why This Matters

The shift of FTE resources from “below-the-line” activities, such as preparing and moving data, to “above-the-line” activities that help align IT capabilities with business objectives not only lowers the cost of IT services but also increases profitability by enabling organizations to better meet their business goals.



80% fewer failed queries. Query failures typically require an additional run that slows down time to insight and increases the cost of stale data.

- **Reduced support and services** – Starburst customers report a dramatic simplification of their entire data analytics process, which **reduces their support costs by 50%** and opens up the ability to mine data to a much broader set of employees.

Table 1. Starburst Customers Can Realize a 53% Reduction in TCO on Average

Category	Benefit	Value
Infrastructure Costs	Reduction in storage, network, and compute requirements	Up to 40%
FTE Time	Elimination of need to discover and move data for analyses	Up to 95%
Support	Reduction in complexity eliminates many sources of support needs	Up to 50%
Security and compliance	Reduction in effort needed to mask data	Up to 95%
Failed Queries	Reduction in failed queries that need to be repeated	Up to 80%

Source: ESG, a division of TechTarget, Inc.

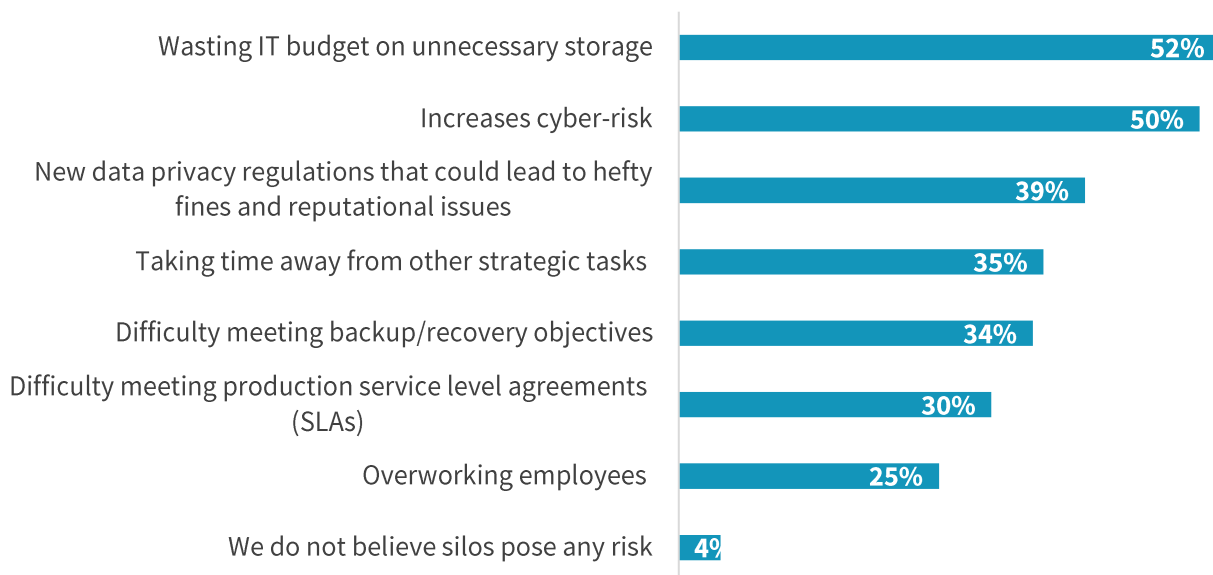


Improved Security and Risk Posture

Any time that data is moved or translated it creates a risk of breach. Additionally, data sovereignty requirements can limit an organization’s ability to access a consolidated view of data that resides in different regions or even different groups within the same organization. ESG research asked organizations about the risks associated with data silos and found that 50% reported increased cyber-risk, and 39% indicated that data privacy regulations exposed them to hefty fines and reputational issues (see Figure 4).

Figure 4. Risk Areas Associated with Data Silos

What are the risks your IT organization faces due to data silos? (Percent of respondents, N=325, multiple responses accepted)



Source: ESG, a Division of TechTarget, Inc.

Starburst Enterprise has the ability to mask and encrypt to ensure that private data is not viewable by unauthorized people and to provide secure access to data in disparate silos without the need to move that data. This removal of geopolitical and privacy barriers facilitates a more complete data set for more effective views into secondary data.

Many Starburst customers have replaced home-brewed solutions and find that, along with an improved security, compliance, and risk posture, they are seeing performance gains, as well as a dramatic reduction in downtime associated with governance reviews and approvals to include all data sources in a query.

The Bigger Truth

There is immense value to be found in the secondary data of most companies. Understanding the trends shown in this data can improve the profitability of current lines of business and open new areas with a targeted approach that better enables success. Data silos have become the norm and often span different types, geographies, and formats. Organizations that want to mine their secondary data are presented with a number of challenges that come with so many pools of data.

Traditionally, companies that want to mine their data must discover, mask, move, and prepare this data for queries. This process is slow and expensive and adds risk. Additionally, the consolidated data often is not a full data set and may become stale by the time it is made available for analysis. Decisions made on partial or stale data may miss current trends, or, even worse, eliminate criteria that might guide a correct decision. Partial data injects business and governance risk.

Starburst Enterprise offers the capability to discover and query data regardless of location or type. By being able to access all of their data for analysis, Starburst customers find time to insight decreases up to 90%, their TCO shrinks by up to 53%, and their revenue can increase up to 2%.

ESG studied the impact customers realize when deploying Starburst and found its ability to mine secondary data and make decisions on a full data set can fundamentally uplevel the analytical capabilities of organizations trying to reach their business goals.

If your company has secondary data across multiple data types or locations, you can benefit from exploring the capabilities of Starburst Enterprise. While your benefits may vary from the examples provided in this economic validation, ESG strongly suggests you consider Starburst.

All product names, logos, brands, and trademarks are the property of their respective owners. Information contained in this publication has been obtained by sources TechTarget, Inc. considers to be reliable but is not warranted by TechTarget, Inc. This publication may contain opinions of TechTarget, Inc., which are subject to change. This publication may include forecasts, projections, and other predictive statements that represent TechTarget, Inc.'s assumptions and expectations in light of currently available information. These forecasts are based on industry trends and involve variables and uncertainties. Consequently, TechTarget, Inc. makes no warranty as to the accuracy of specific forecasts, projections or predictive statements contained herein.

This publication is copyrighted by TechTarget, Inc. Any reproduction or redistribution of this publication, in whole or in part, whether in hard-copy format, electronically, or otherwise to persons not authorized to receive it, without the express consent of TechTarget, Inc., is in violation of U.S. copyright law and will be subject to an action for civil damages and, if applicable, criminal prosecution. Should you have any questions, please contact Client Relations at cr@esg-global.com



Enterprise Strategy Group is an integrated technology analysis, research, and strategy firm that provides market intelligence, actionable insight, and go-to-market content services to the global IT community.

© 2022 TechTarget, Inc. All Rights Reserved.



