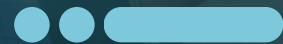
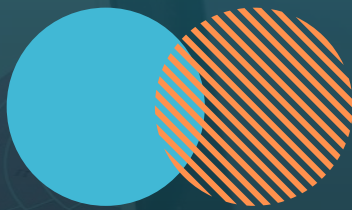


Case Study

TRANSFORMING UNIVERSUM'S DATA INFRASTRUCTURE WITH 205 DATA LAB



This case study explores how 205 Data Lab partnered with Universum to modernize their data infrastructure, addressing complex, custom data needs and enabling scalability. Through a collaborative approach and strategic technology integration, Universum transitioned from a labor-intensive legacy system to a robust, flexible platform.

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Summary



Universum is a global leader in employer branding insights, dedicated to providing businesses with valuable data-driven recommendations that help them attract and retain top talent.

Offering users unprecedented convenience and insights into their personal health data.



Data is at the heart of Universum's mission. The company operates by collecting, processing, and delivering insights from vast survey data. As Prakash Rajagopalan, the Head of Technology at Universum, explained, "We provide game-changing recommendations to our clients based on our data."

Prakash is responsible for overseeing Universum's comprehensive data architecture and tools, encompassing all aspects of data collection, streaming, storage, processing, and delivery to meet the needs of various business applications. As he outlined: "The software architecture and tools used in the entire process of collecting, streaming, storing, processing, and supplying data falls under my purview. A significant portion of my responsibilities also involves enabling and supporting the development of applications that utilize this data and maintaining them."



Challenges

Before partnering with 205 Data Lab, Universum recognized the need for enhancements to its data infrastructure to support the growing complexity of its business. As their operations expanded across multiple markets and languages, the existing legacy data environment, while effective in earlier stages, struggled to meet the demands of handling increasingly complex and customized survey data.

Prakash noted: "We work with highly intricate survey data, where each country introduces unique elements, and building a scalable system capable of managing this diversity presented a significant challenge." So the nature of the business required managing the challenge of customization and scale - at the same time.

Manual Processes Limit Efficiency

While functional, the existing platform required a high level of manual intervention and operational effort, which limited its efficiency. Prakash explained, "The data platform was operationally intensive and required considerable manual processing. Our technology stack needed modernization to streamline operations and enable quicker insights."

In-House Solutions Fall Short

In an effort to address these challenges, Universum initially attempted to build an internal data warehouse using Postgres and AWS. However, the complexity of the data and the need for scalability proved more demanding than anticipated. As Prakash reflected: "We underestimated the complexity of the data and its volume. This led to inefficiencies in our processes, and we ultimately reverted to our previous system after realizing that our in-house solution was not the right fit for our needs."



Partnering with 205 Data Lab

Universum valued domain experience and technical expertise in data, but at the same time, Universum management wanted to ensure that 205 Data Lab would come in with a good understanding of Universum's products, services, and internal processes.

The partnership began with a comprehensive assessment of Universum's existing data architecture and its alignment with their business goals. 205 Data Lab initiated the engagement by interviewing stakeholders across various departments to gain a deep understanding of Universum's challenges, both technical and operational.

Collaborative Roadmap for Data Transformation

With this understanding in place, 205 Data Lab proposed a flexible roadmap that emphasized iterative prototyping and collaboration. This approach allowed Universum to explore different solutions, including Snowflake, dbt, and Cube as well as Tableau and other BI tools through a Proof of Concept (POC) phase. The team tested the feasibility and effectiveness of these technologies, ensuring that the final solution would meet both current needs and future scalability.

Phased Implementation for a Future-Ready Data Platform

The phased implementation of the new data infrastructure enabled Universum to transition legacy systems to a modern, scalable platform without disrupting ongoing operations. The continued support and collaboration with 205 Data Lab allowed Universum to adapt the system as needed, ensuring that their data infrastructure could evolve alongside their business.

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The 205 Data Lab team was instrumental in helping us navigate the complexity of our data landscape. Their willingness to engage deeply with our business challenges, combined with their technical expertise, made all the difference.

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Business Outcomes

Since working with 205 Data Lab, Universum has experienced measurable improvements in operational efficiency, faster insights, and better collaboration across teams. The most notable achievement has been the successful implementation of a self-service BI platform using Tableau, which Prakash described as a "big win." He added: "For the first time, we now have a functional BI platform that the whole organization can use, and we are considering sharing it with our clients."

Measurable improvements in capabilities and business outcomes

The new data infrastructure will reduce the time to insight significantly, allowing Universum to respond faster to client requests. Prakash explained: "In the old system, it was difficult to produce insights quickly, and we often had to go through rigid processes. Now, with the new infrastructure enabling the faster report and visualization development by Tableau, we will be generating insights in minutes instead of hours."

Additionally, the new infrastructure allowed Universum to start working with the data before the field period is completed - giving the insight teams the leg ahead on their analysis. When the field period is completed there is already significant progress on analysis and reporting that can be applied to the complete field data. Which is significant since Universum always strives for earlier and earlier insight for its Customers. "

Faster Insights and Reporting:

The production of reports and the overall process has become significantly faster with the new Tableau-based BI solution, compared to the previous manual, PowerPoint-based approach. "Fraction of the time required in the old state"

Improved Data Capabilities and Collaboration:

The in-house data knowledge and understanding has scaled up, with more engineers, analysts, and cross-functional teams now able to access and work with the data.

Potential for New Product Development and Innovation:

The new data infrastructure and BI capabilities have given Universum the confidence to explore and develop new product portfolios and insights for their clients.

Readiness for Digital Transformation:

The new data infrastructure and tools have positioned Universum well for its planned digital transformation initiatives in 2025 and 2026. These include leveraging AI and other advanced analytics capabilities to enhance its product offerings and client acquisition strategies.

Impact

Universum's internal teams have greatly benefited from the enhanced data infrastructure. The BI team, in particular, now has the tools to access and analyze data independently, freeing them from time-consuming manual tasks. **Prakash shared: "The biggest impact has been on our internal report production. We used to spend a lot of time creating PowerPoint reports with an operationally intensive process.. Now, with Tableau integrated into the system, we can automate much of that work."**

Collaboration across teams has improved as well, with Universum's IT, data, and business teams now working more closely together. Prakash explained: "Previously, knowledge was concentrated in a few people, but now the collaboration between teams is much better. The data warehouse has created an environment where more people can access and understand the data."

New Infrastructure Enables Real-Time Insights and Innovation

The new infrastructure has also paved the way for product innovation. Universum is already exploring new products and services that would not have been possible with their old system. "We are looking into connecting live data to our BI platform and providing real-time insights. This is something we couldn't even consider before," Prakash said.

Advanced Platform Opens Doors for AI Solutions

In terms of AI, the new data infrastructure opens up new opportunities for Universum to explore AI-driven solutions in both internal workflows and client-facing applications. "We are now in a better position to explore AI tools and experiment integrating them into our data processes, thanks to the new infrastructure," Prakash noted.





Technologies

205 Data Lab introduced several key technologies to address Universum's data challenges, including Snowflake, dbt, Cube, and Tableau. Prakash explained how each technology played a critical role in improving Universum's data processes:



"Snowflake gave us the ability to scale quickly and make changes to our data models without needing to overhaul the entire system. It's flexible and adaptable, which is crucial for our complex data needs."



"dbt has streamlined our data transformations, allowing us to manage and deploy changes efficiently. This has been instrumental in cleaning and preparing data for analysis."



"Cube has been a game-changer for us. It allows us to create APIs that access data in a way that would have required custom development before. Now we can integrate various tools seamlessly."



"Tableau has transformed how we deliver insights. It's now possible for teams to generate reports and visualizations on their own, reducing the dependency on our data team."

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The new data infrastructure powered by technologies like Snowflake and DBT has made our data more robust, scalable, and flexible. This has been a game-changer for our ability to innovate and deliver better insights to our clients.

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Ongoing Support

Prakash spoke highly of the onboarding and ongoing support provided by 205 Data Lab. **"From the very beginning, 205 Data Lab was fully invested in understanding our business and technical needs. They didn't just provide solutions; they worked closely with us to ensure those solutions were the right fit for our unique challenges."**

He also appreciated 205 Data Lab's responsiveness as Universum's needs evolved over time. **"We've gone through several phases with 205 Data Lab, from initial assessments to full implementation and now ongoing support. They've been flexible and responsive throughout the entire process, helping us adapt to new challenges as they arise."**

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The level of involvement from 205 Data Lab has exceeded our expectations. Their understanding of our business needs, combined with their technical expertise, has helped us transform our data infrastructure. We now have a scalable system that supports our current operations and sets us up for future growth.

— Prakash, Head of Technology, Universum

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Future Growth

The new data infrastructure has set Universum up for long-term growth, particularly as the company continues to evolve and the complexity of its data increases. **"With Snowflake, dbt, Cube and the rest of the tools, we now have a solid foundation that can handle the growing complexity of our data. We are also better prepared to innovate and deliver new products to our clients," Prakash said.**

The biggest long-term value of working with 205 Data Lab, according to Prakash, has been the partnership's ability to scale with Universum's needs. **"We have a clear vision for where we want to go, and 205 Data Lab has been an integral part of that journey. As we move into more advanced areas like AI and real-time data, we know they will continue to be a valuable partner."**



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As Universum grows, 205 Data Lab's solutions will remain central to their data strategy, ensuring that the company can continue to innovate and provide cutting-edge insights to its clients.

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