



The Journey to Stardom: Creating the Perfect Formula for Success

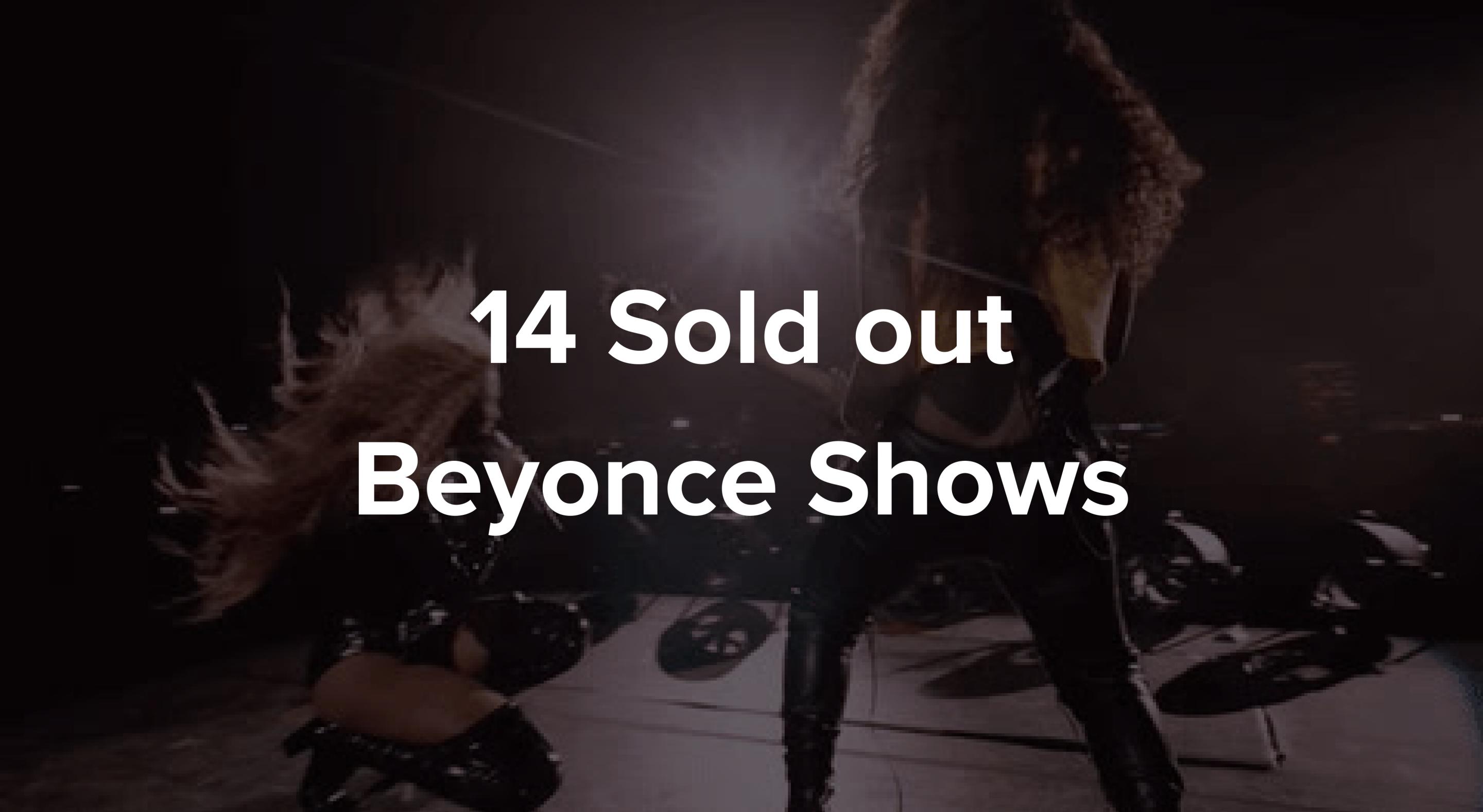
*Presented by: Brenda Hernandez, Christy Hung, Jada Lavender,
Sebastian Van Hemert*



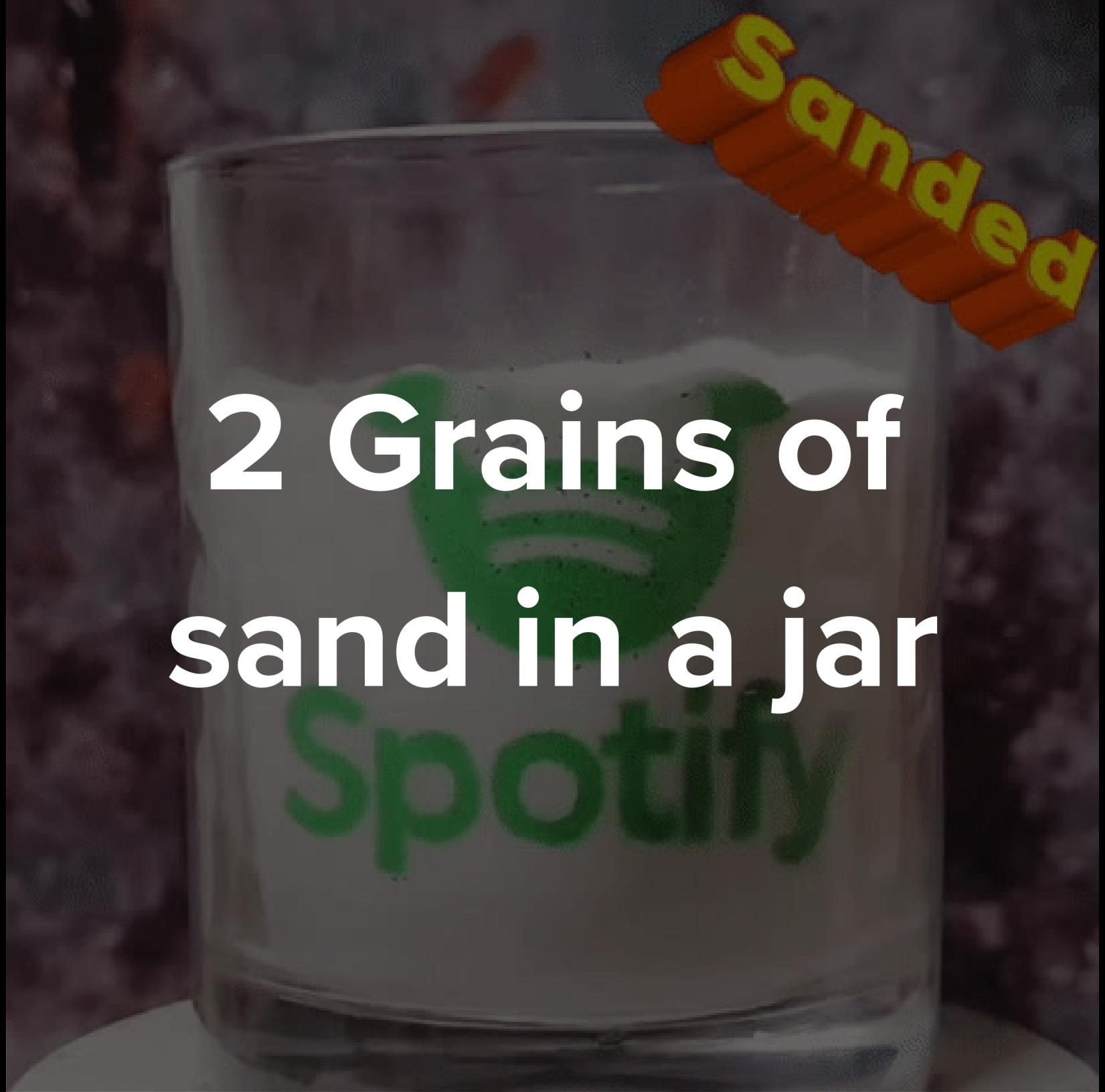
According to the Spanish National Research Council
approximately **0.000002%** of
aspiring musicians achieve
worldwide fame



**20 Sold out Taylor
Swift Shows**



14 Sold out
Beyonce Shows



2 Grains of
sand in a jar

Sanded



**Lack of
Exposure**



**Insufficient Data
Drive Decision -
Making**



Monetization



We Have the Sauce



By focusing on trends amongst worldwide stars through analytics and machine learning models, we can optimize artist's presence and improve their popularity and increase revenue for the company



Focus on the OMTM: Popularity

Business Activity Category

Make strategic improvements & Increase Revenue

Business Activity

Improve identification of opportunities

Key Result

At least 50% of artists who work with the Artist Team should achieve a 20% increase, on average, in popularity by the end of Q4



Data Mining Goals

Successfully develop and deploy a new artist data-driven recommendation system that increases new artists' popularity on Spotify.

01 Uncover Listener Insights

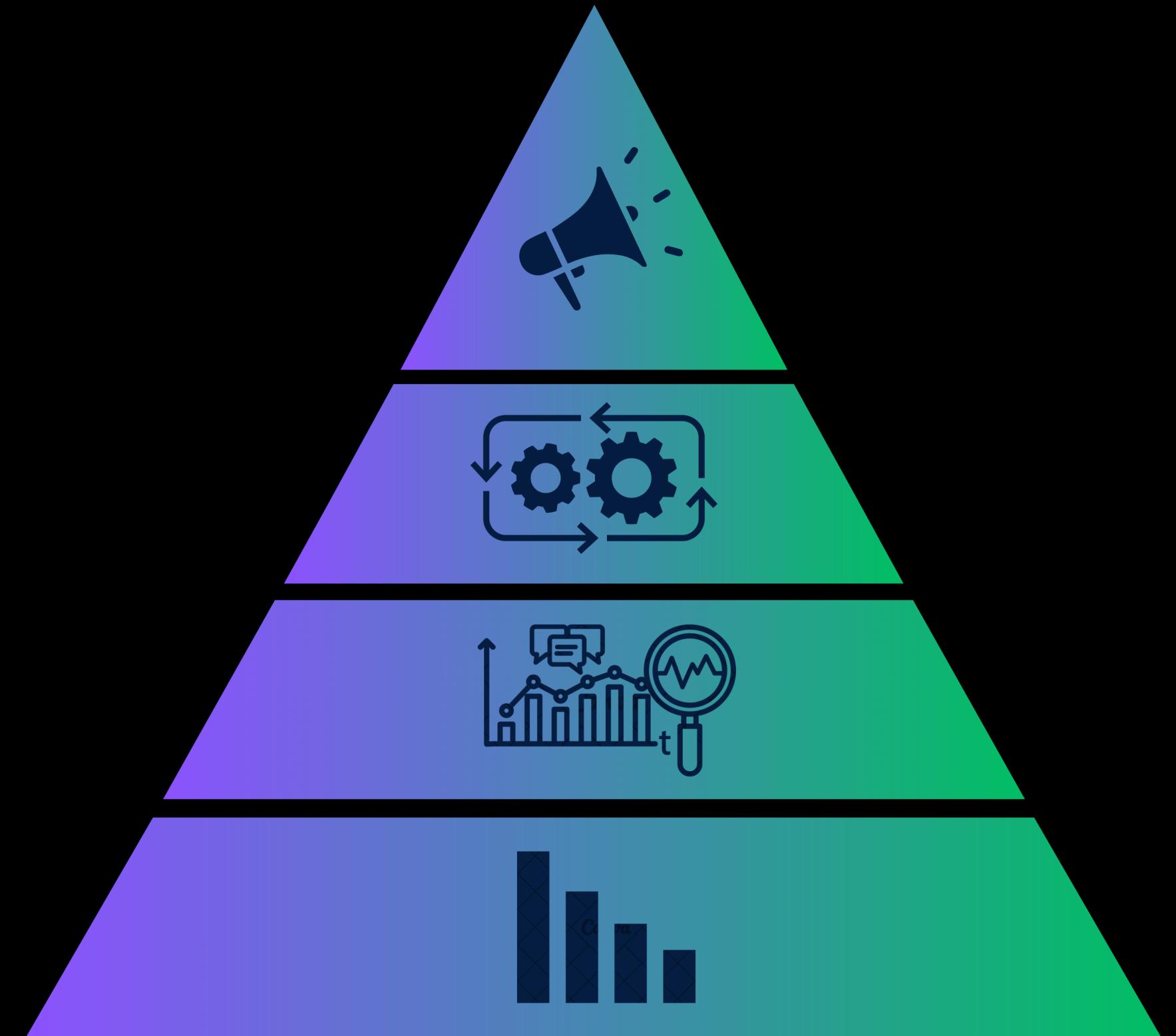
02 Bridge the data literacy gap

03 Improve Data Science Models



Our 4 Initiatives

- 01** Descriptive analytics dashboard
- 02** Diagnostic analytics dashboard
- 03** Automate the API pipeline
- 04** Predictive modeling to recommend emerging talent





Spotify's Win-Win: Boosted Earnings for Emerging Artist

**Artists can generate
\$57,600 in revenue annually**

1M streams a month with a 20% increase can improve monthly revenue by \$4,800 therefore increasing annual revenue to \$57,600

**Spotify can indirectly
generate \$576,00 annually**

Assuming that Spotify can make 10x artist revenue through ad space and retention



Spotify® Risks and Requirements

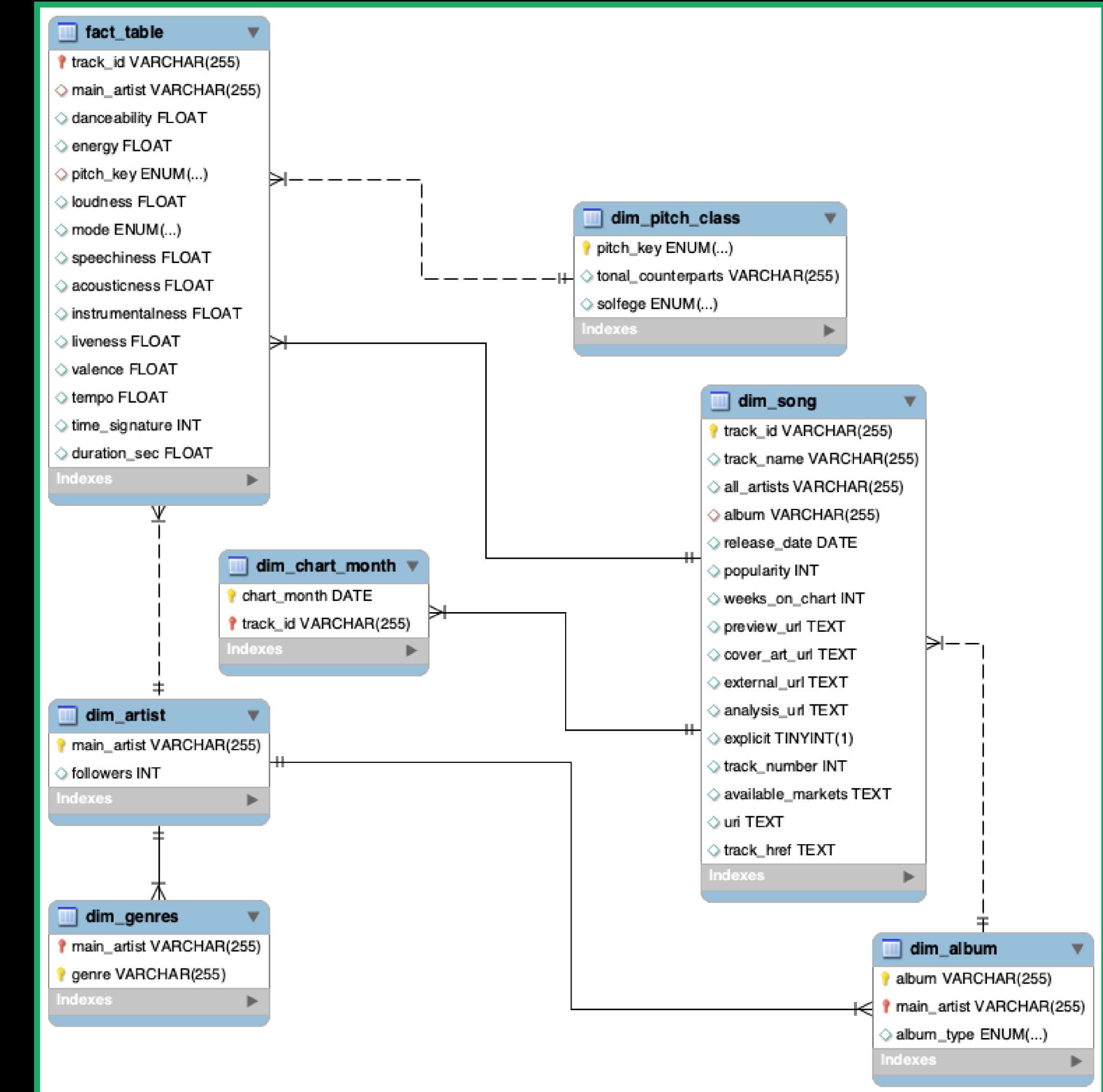
Requirements	Risks
Data Sources: <ul style="list-style-type: none">• Spotify Web API• Billboard.com	<ul style="list-style-type: none">• Access,• API rate limits,• Terms of service
ETL (Extract, Transform, Load) codebase <ul style="list-style-type: none">• JupyterHub	<ul style="list-style-type: none">• DB corruption, security vulnerabilities• improper versioning
Infrastructure <ul style="list-style-type: none">• AWS RDS	<ul style="list-style-type: none">• Cost management• security vulnerabilities• vendor lock-in, storage restraints
Data Visualization Software <ul style="list-style-type: none">• Tableau Desktop	<ul style="list-style-type: none">• Initial investment• Learning curve



Entity Relationship Diagram (ERD)

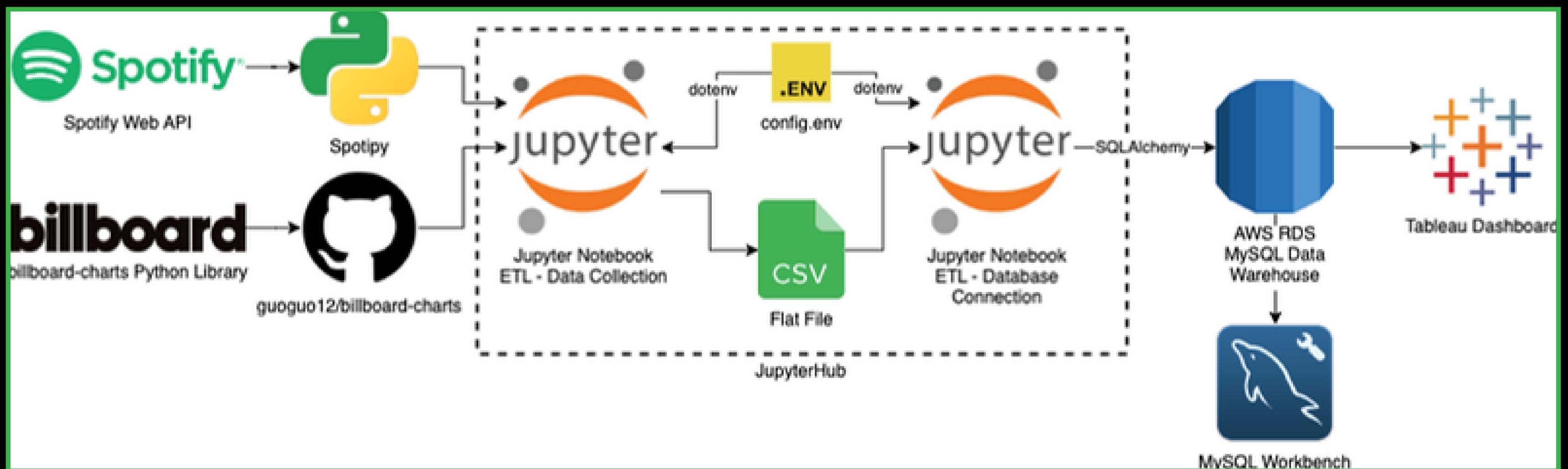
Tables:

- fact_table
- dim_song
- dim_artist
- dim_album
- dim_chart_month
- dim_pitch_class





ETL Pipeline





We Are Committed to Governing Data Properly



Quality



Compliance



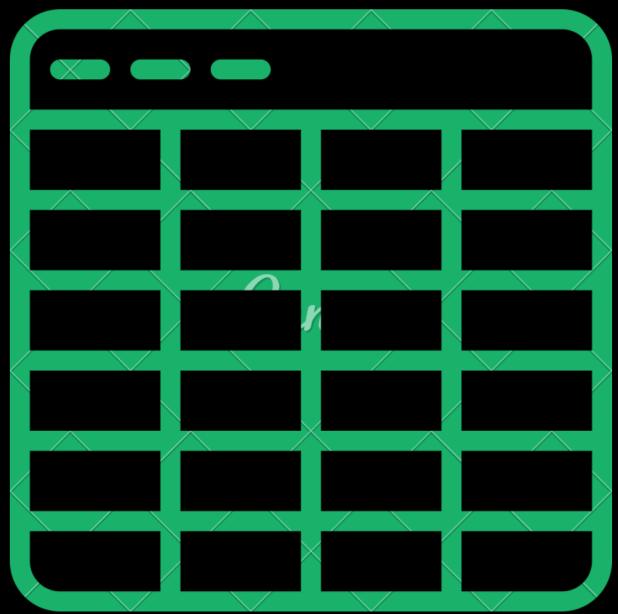
Security



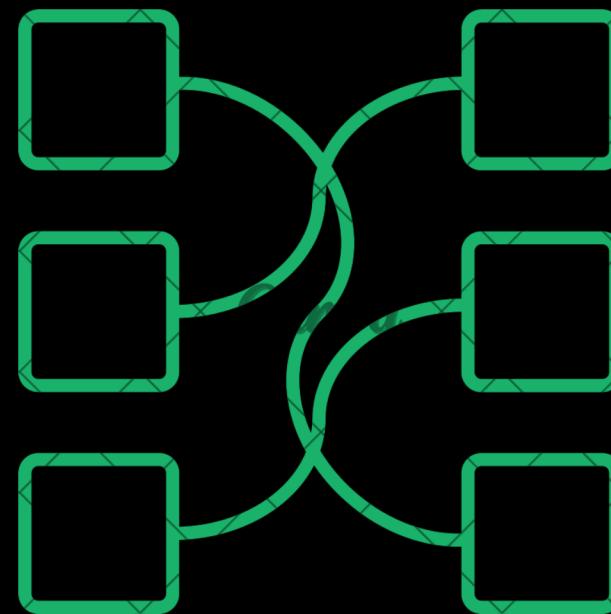
Ethics



Ensuring Quality Data Management: Data Dictionary



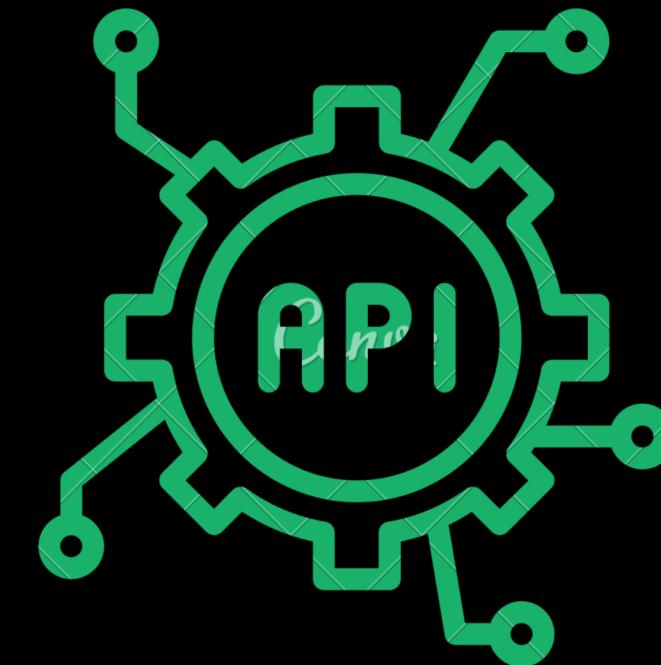
38 Features



8 Data Types



2 Distinct Owners



2 Main Data Sources



Meet the Artist Team

Leverage the dashboard to assist emerging artists with growth



Their primary focus revolves around fostering relationships with artists, their management teams, and record labels. This involves serving as a liaison between Spotify and the artist community, addressing inquiries, and offering guidance and support.

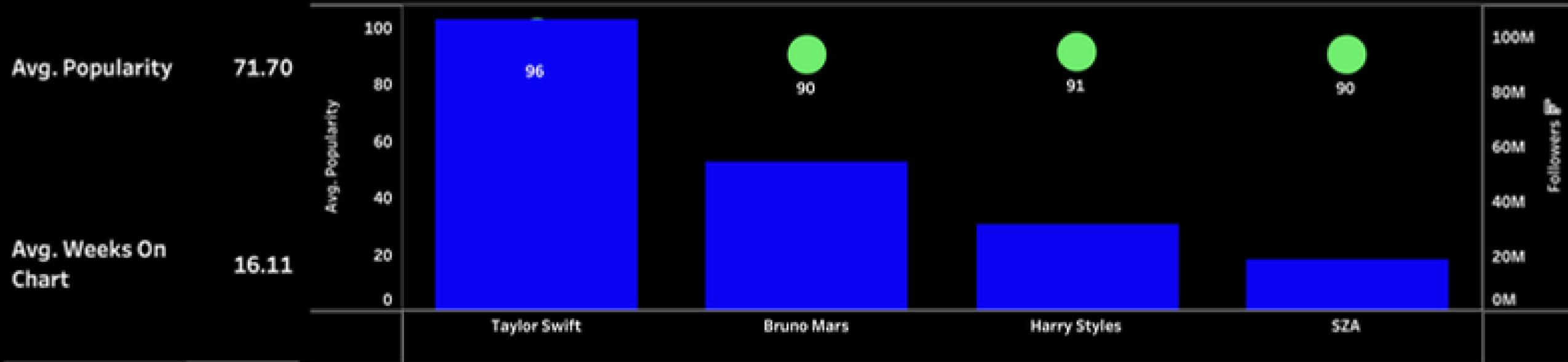


Current Music Industry Trends

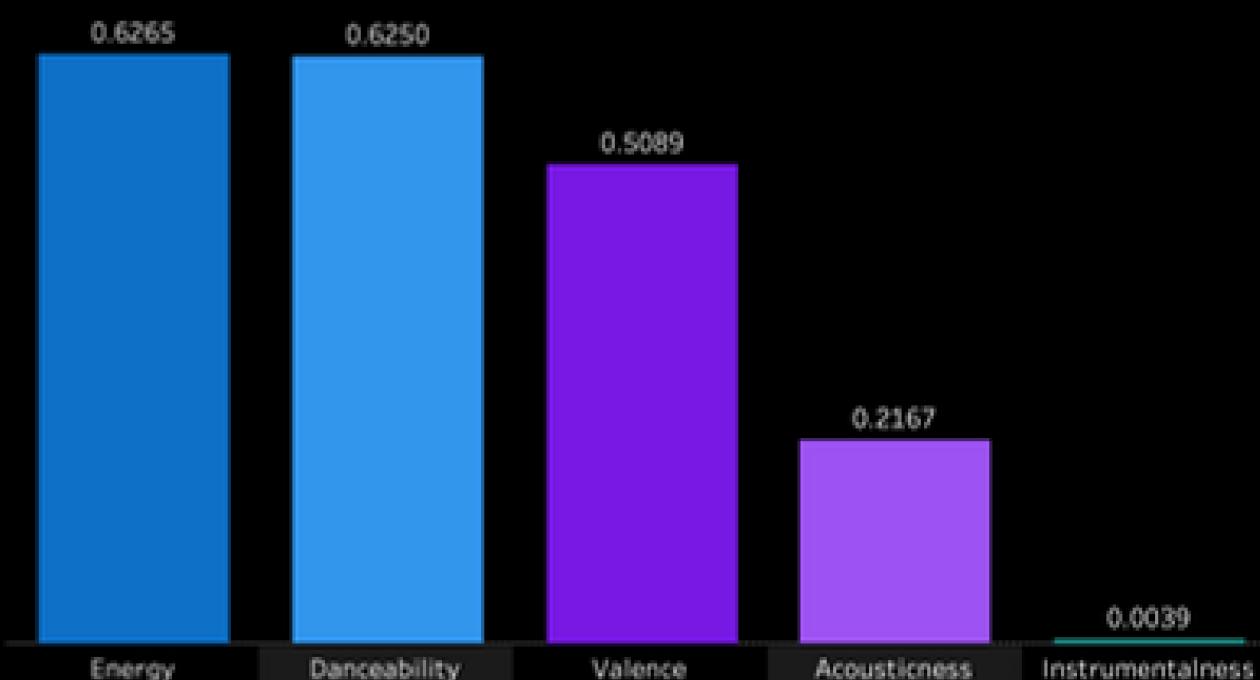
Artist Team Dashboard

[Download PDF](#)Quarter
AllGenre
popTrack Attributes
Acousticness

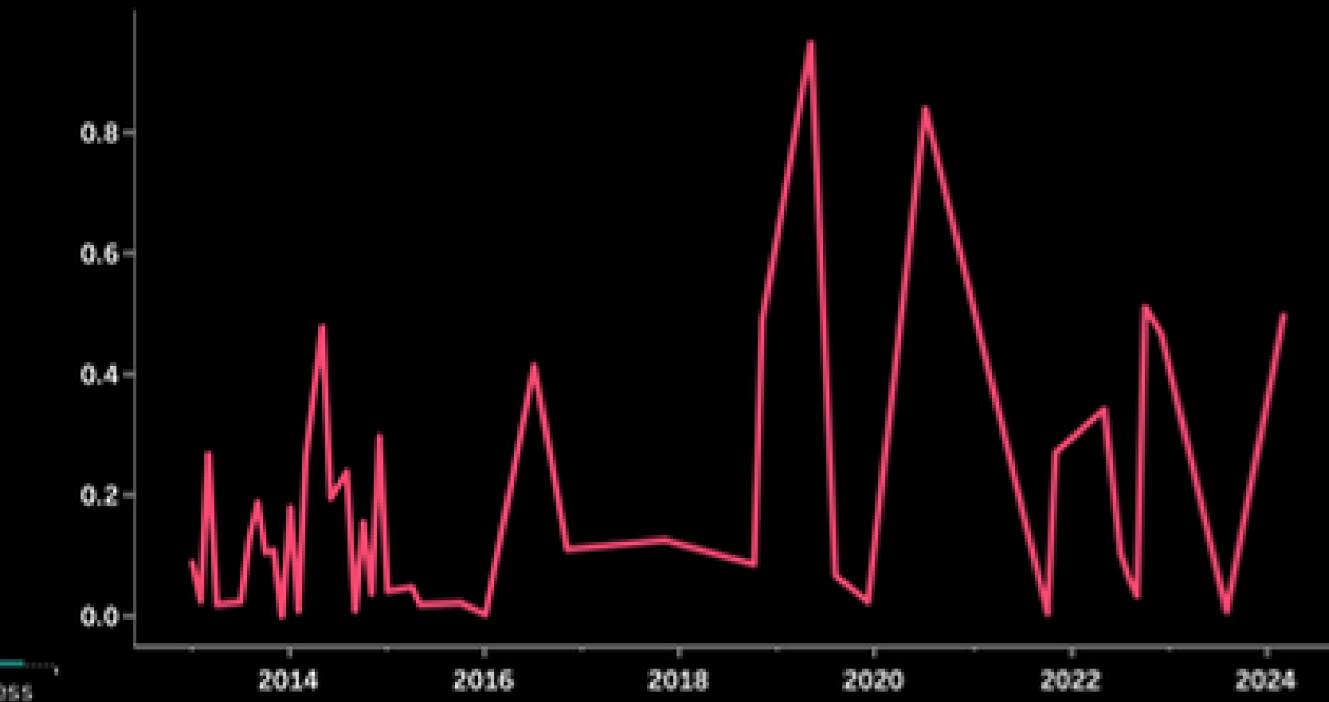
Artist with Avg Song Popularity Within Top 10%



Top Track Features on Avg



Changes in Avg Track Attributes Over Time





Leverage Avg Popularity & Chart Longevity for Artist Success

Avg. Popularity

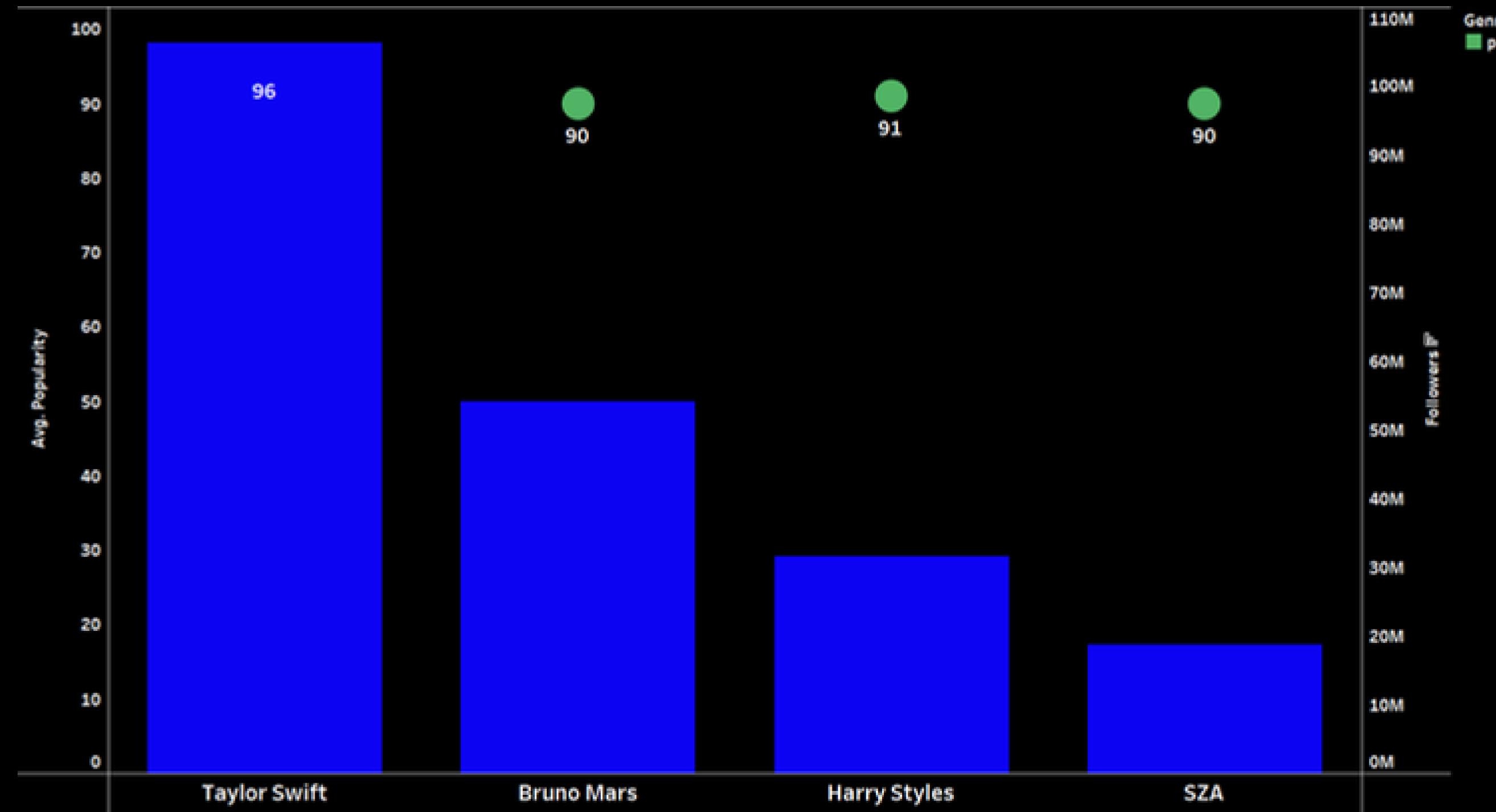
71.70

Avg. Weeks On
Chart

16.11

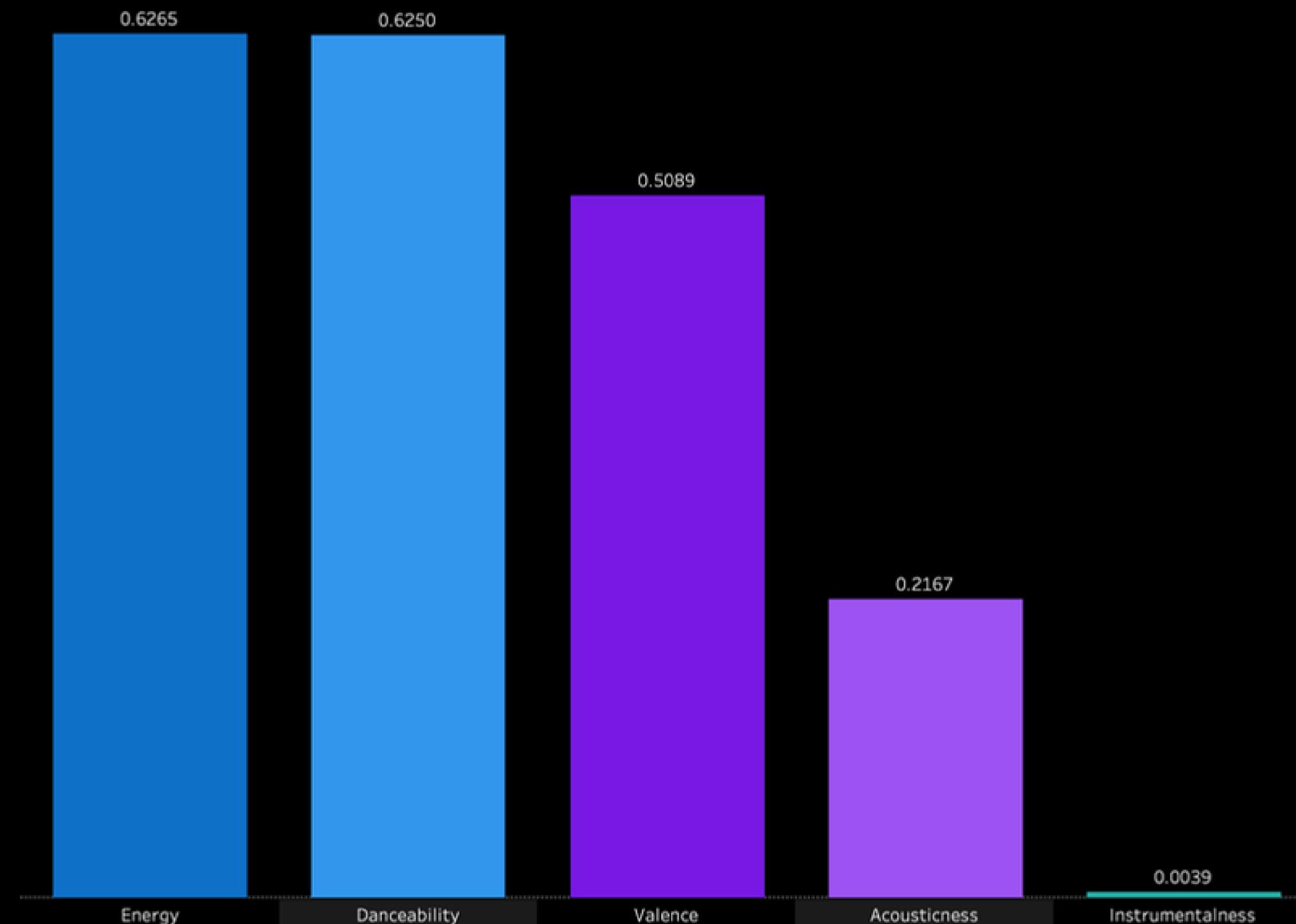


Pop Powerhouses: Discovering Success in 2024's Music Scene



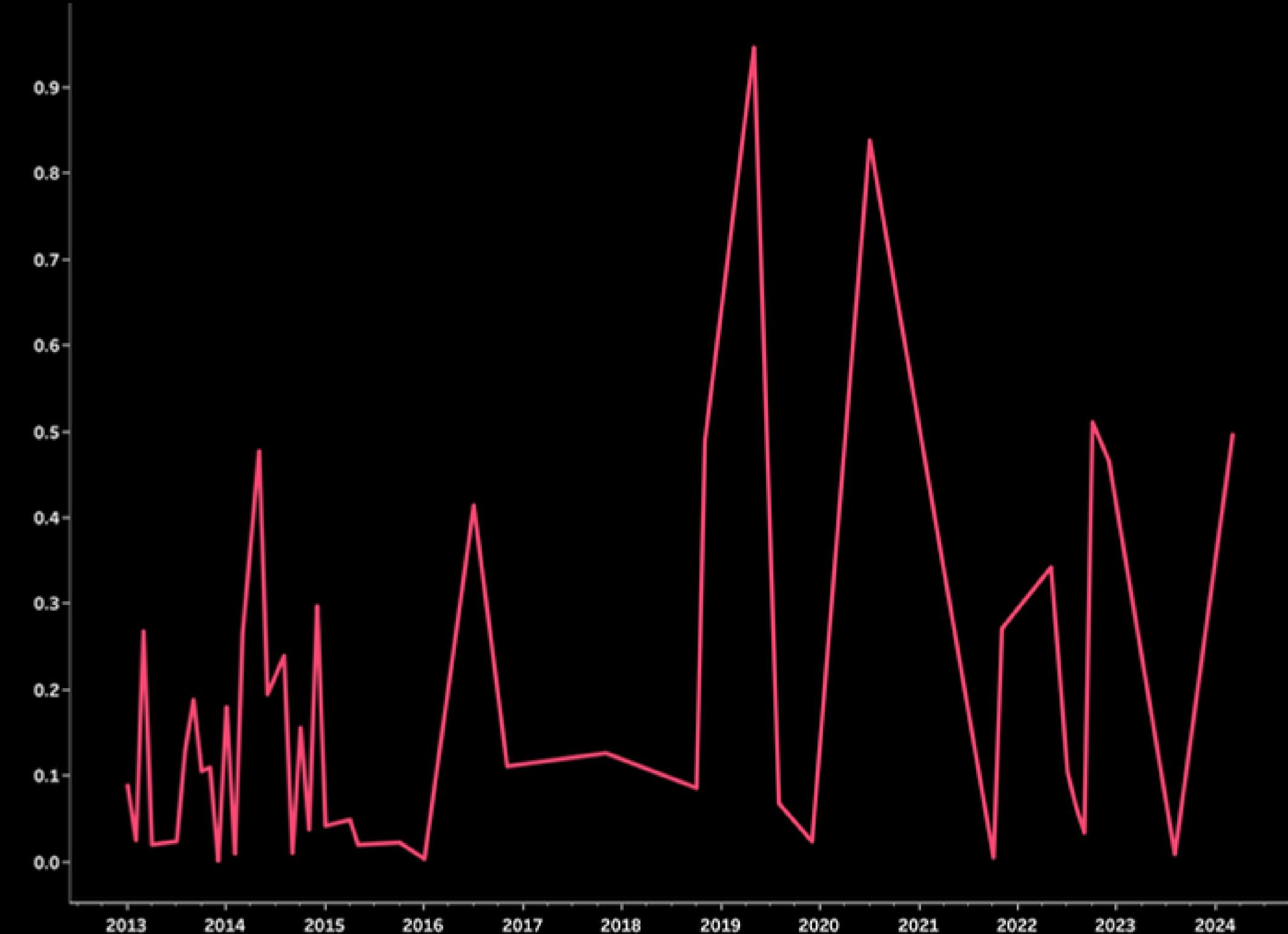


Tracks Need a Focus of Energy, Danceability & Valence

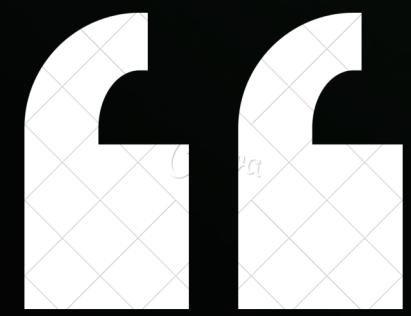




Aligning Track Production with Evolving Billboard 100 Trends



Track Attributes
■ Acousticness



*Unlock the potential of human creativity by giving a **million creative artists** the opportunity to live off their art and **billions of fans** the opportunity to enjoy and be inspired by it.*