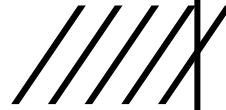


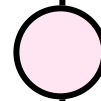
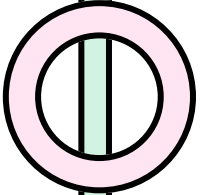
ARTIST SELECTION INSIGHTS

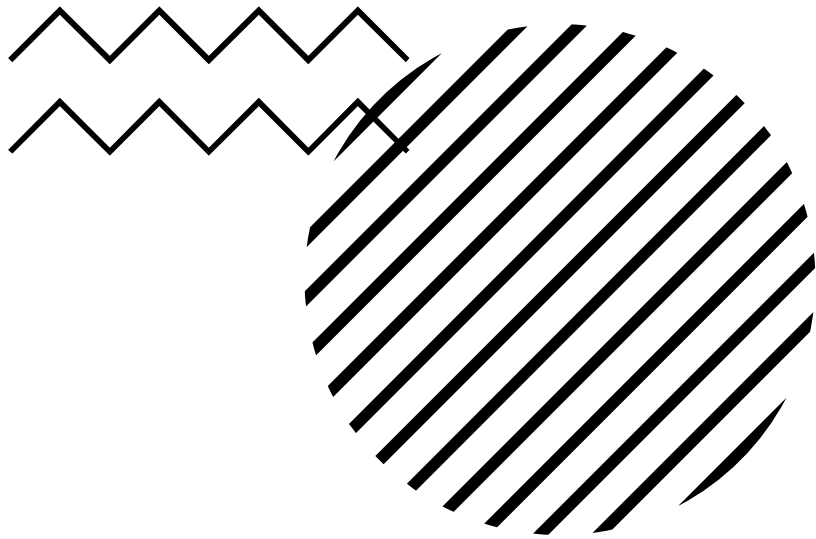
EILEEN IP

VISUALISATION PRESENTATION



GEMS
Event Management
AUSTRALIA



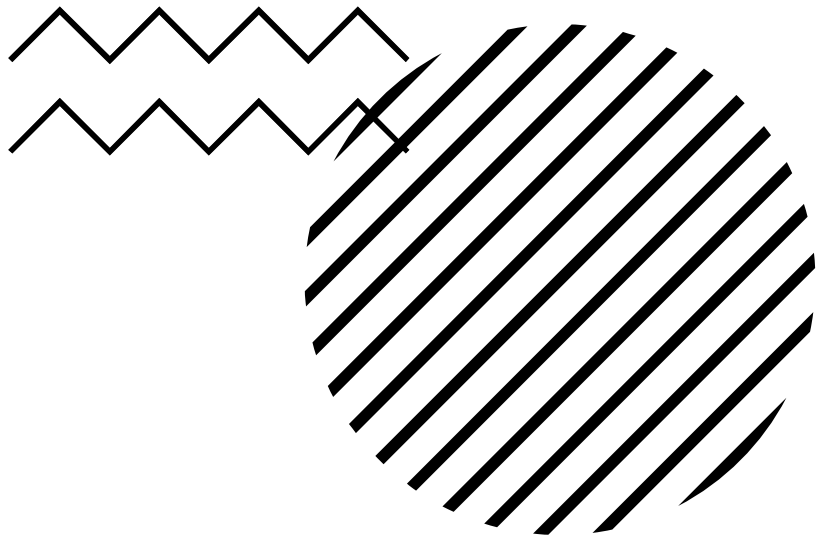


OUR CLIENT

The Gems Event Management, is Australia's premier organiser of business and special events specialising in large scale music events featuring top tier artists.

This report is primarily designed for the organisation's executives, event planners, and marketing strategists who rely on data-driven insights to make decisions on artist selection and event planning.





OUR OBJECTIVE

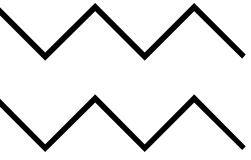
The objective of this report is to enhance audience engagement and satisfaction while maximising concert success by identifying the most popular artists, their top-performing songs and key song features.

Specifically, the report aims to visualise a diverse range of variables, analysing the key trends and offer actionable insights. By conducting this, the report will optimise the artist selection process, artist's songs recommendation and identify current song features trends.

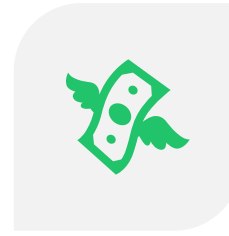
VARIABLES



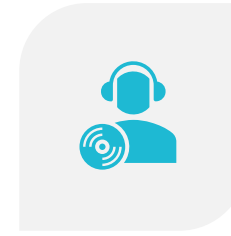
	Why It Matters?
Artist Name	This is the name of the artist, it is important to use because it Identifies artists by name.
Artist Familiarity	The rating of the artist recognition at that given year, this is essential because it measures public recognition of the artist at a given year, indicating popularity awareness.
Artist Hotness	The artist popularity at that given year, this is crucial because it assesses real time popularity trends, helping identify rising or declining stars.
Song Hotness	The popularity of individual songs, which helps gauge the current demand for specific tracks, ensuring setlists feature crowd favourites.
Duration	The duration of the song. This is important since the songs must be under 4 minutes to maintain fair performance time and optimal audience engagement..
End of Fade In, Start of Fade Out, Key, Loudness, Tempo, and Time Signature:	These are the song features in the song. These features are essential to understand because analysing the songs' formats would help identify their common patterns over the years.
Mode (Major/Minor)	Songs are either in major or minor chord. Prioritising songs in major chords for a brighter, more energetic and engaging sound would boost the experience.
Year	Release year of the song, this is crucial because it tracks artist consistency, helping distinguish fleeting trends from potential talent.



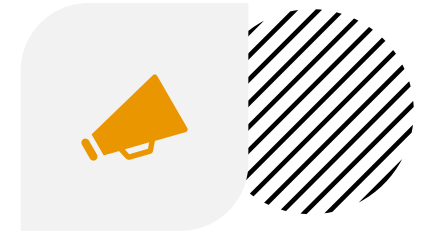
BENEFITS



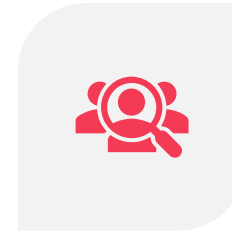
SELECTING THE MOST POPULAR ARTISTS ENSURES HIGH TICKET DEMAND, DIRECTLY IMPACTING REVENUE POTENTIAL.



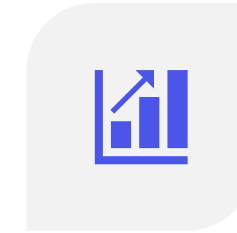
FEATURING TOP ARTISTS INCREASES THE LIKELIHOOD OF AUDIENCE ENJOYMENT, ENGAGEMENT AND ENCOURAGES REPEAT ATTENDANCE.



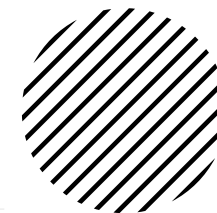
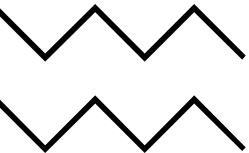
HIGHER AUDIENCE ENGAGEMENT CAN ATTRACT MORE SPONSORS AND CREATE VALUABLE BRAND PARTNERSHIPS.



GAIN A COMPETITIVE EDGE BY LEVERAGING DATA TO IDENTIFY TRENDS AND AUDIENCE PREFERENCES.

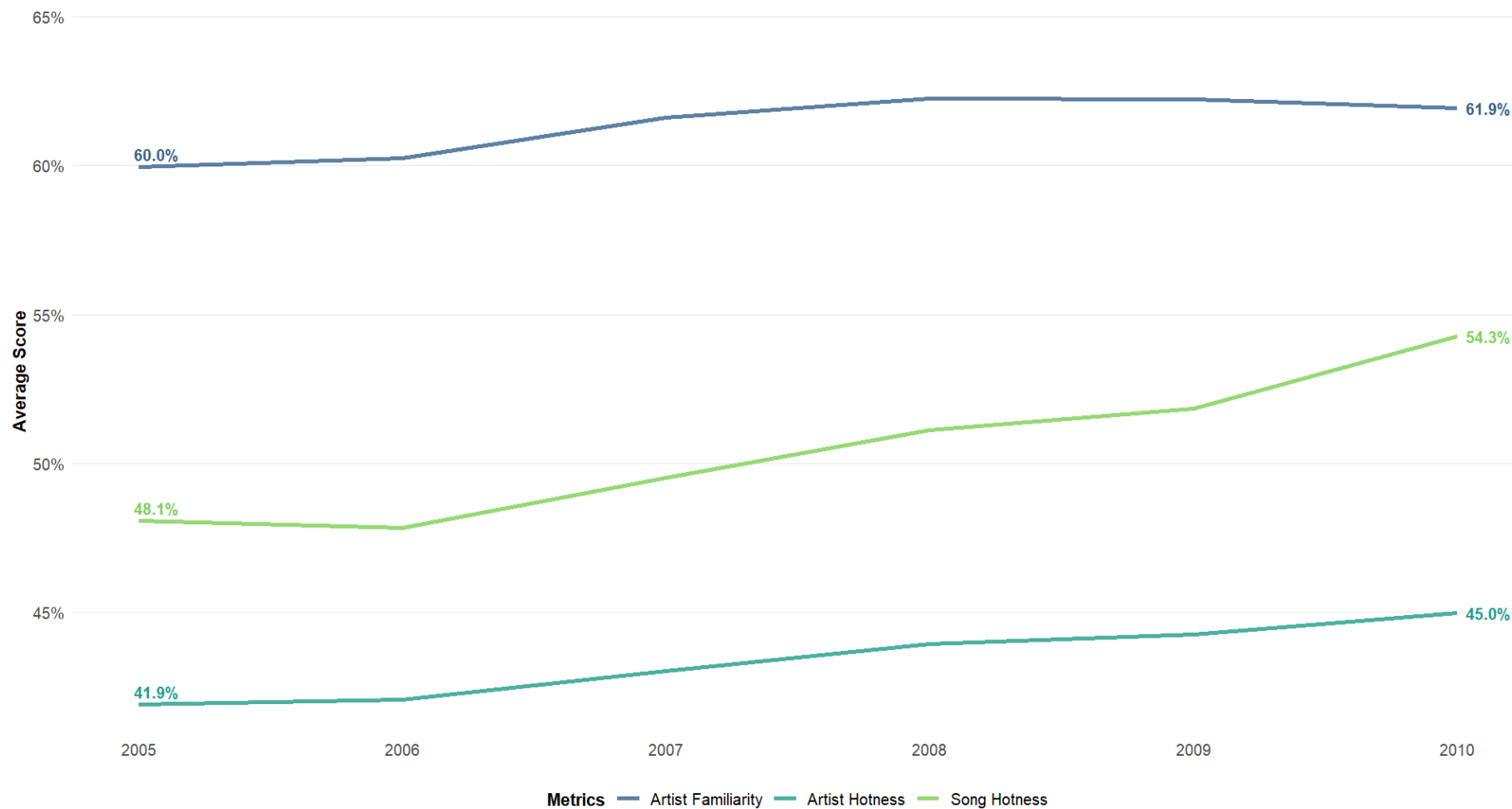


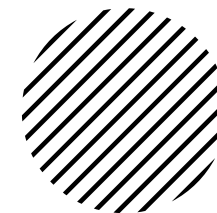
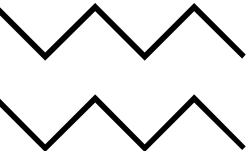
THE ACTIONABLE INSIGHTS FOUND FROM THIS PROJECT CAN REFINE FUTURE EVENT STRATEGIES, IMPROVING ARTIST SELECTIONS AND OVERALL CONCERT EXPERIENCES.



Music Industry Metrics Trends (2005-2010)

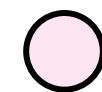
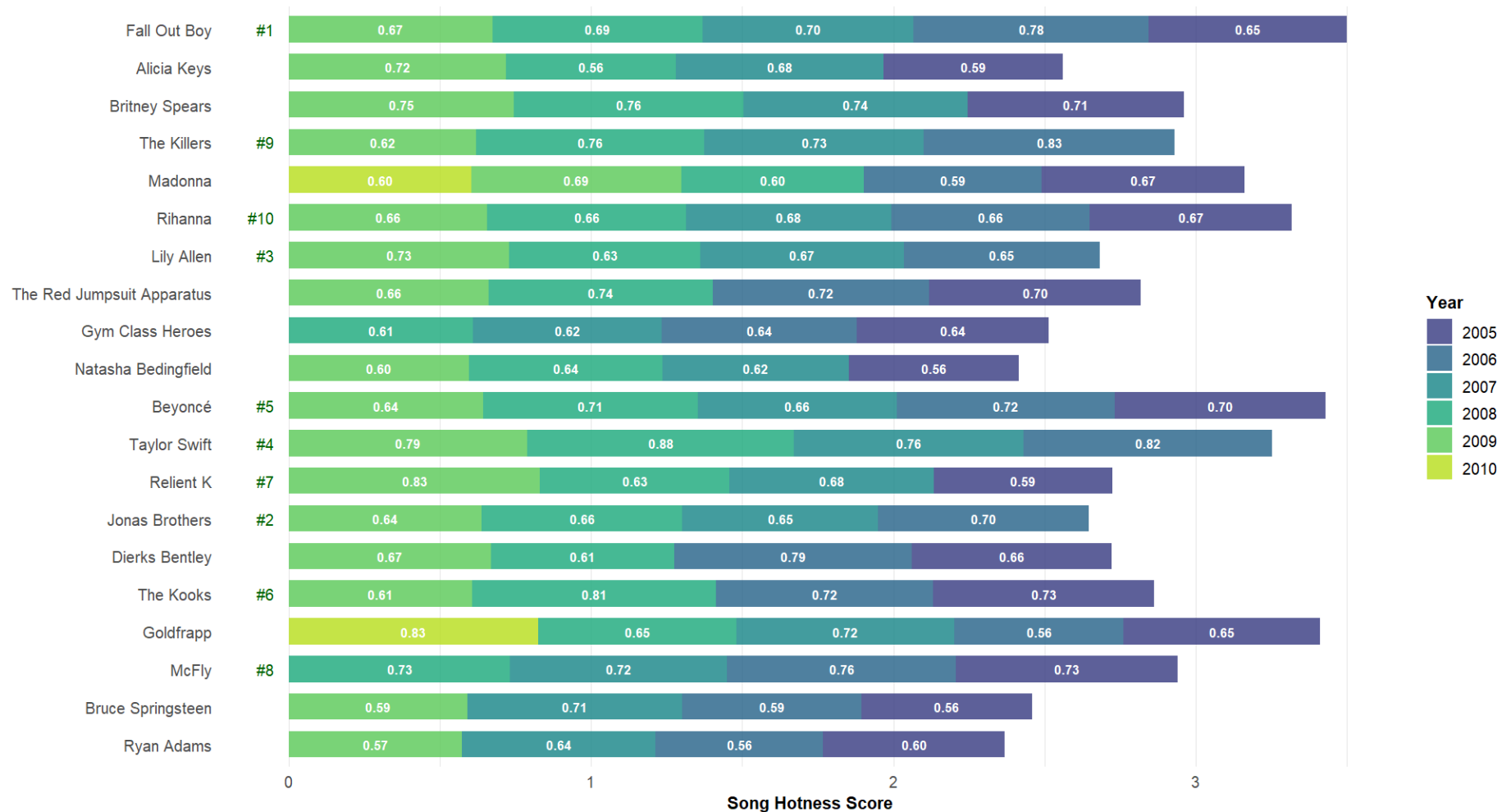
These metrics set the threshold to be chosen in the selection. Artist familiarity shows the strongest performance over time and song hotness shows the largest growth.

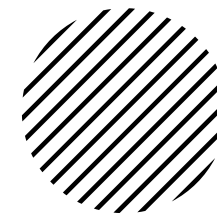




Song's Hotness of Top 20 Artist Familiarity (2005-2010)

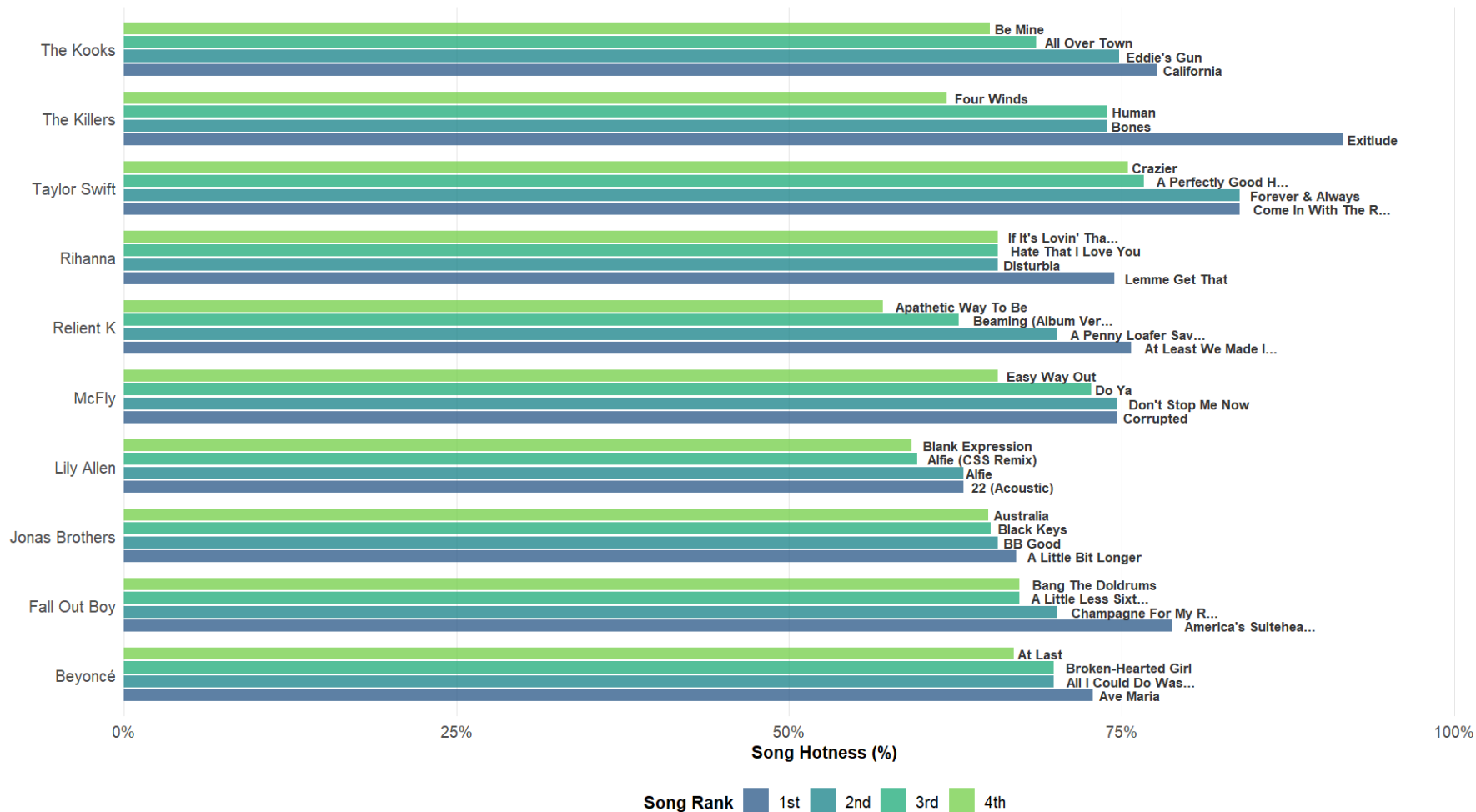
Stacked by year showing cumulative song hotness. Top 10 artists by cumulative hotness are annotated.

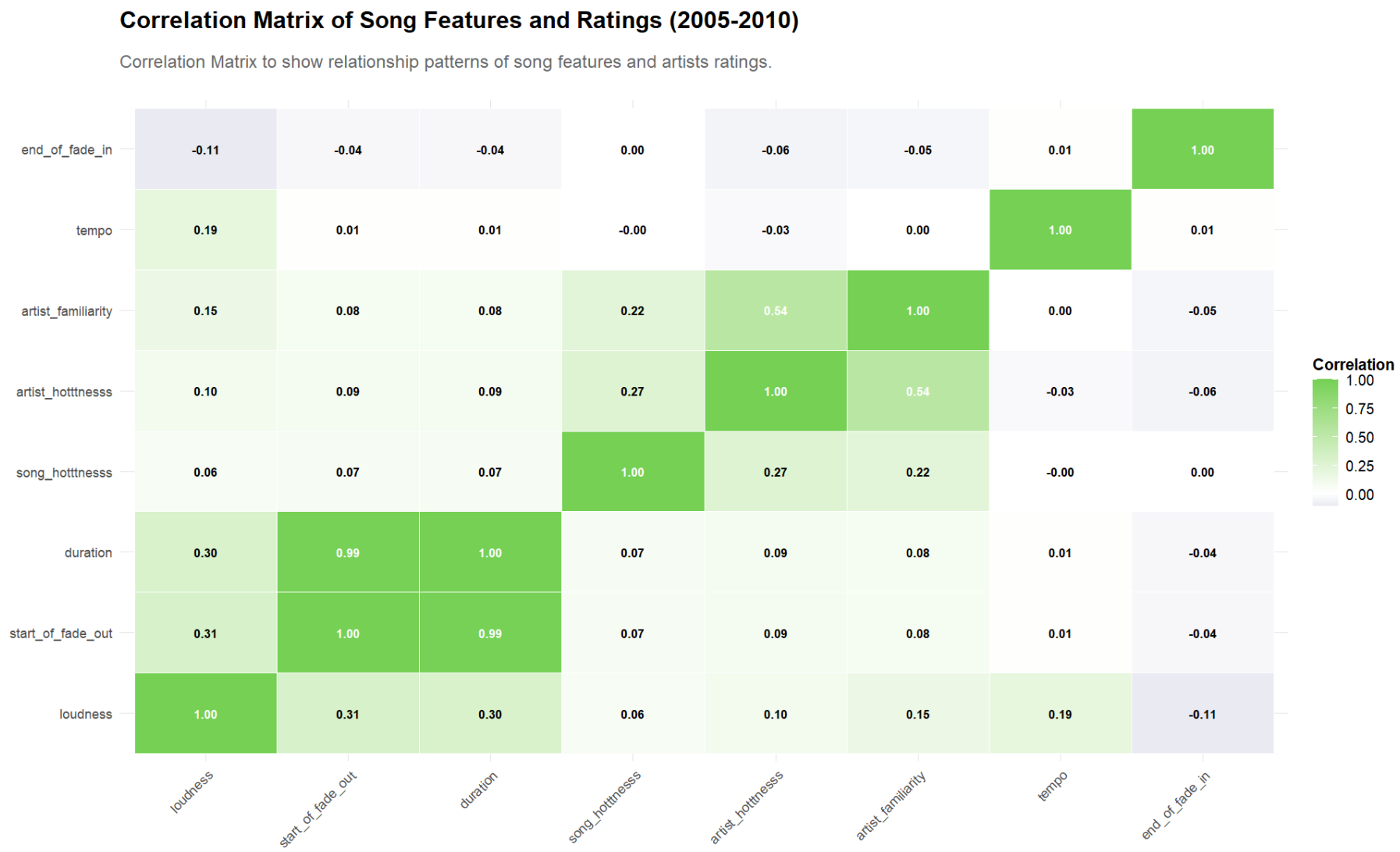




Top Four Songs by Top Ten Artists (2005-2010)

Showing top four hottest songs for each artist ranked by artist familiarity.

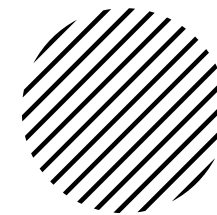
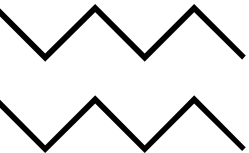




PLOT 4: CORRELATION MATRIX

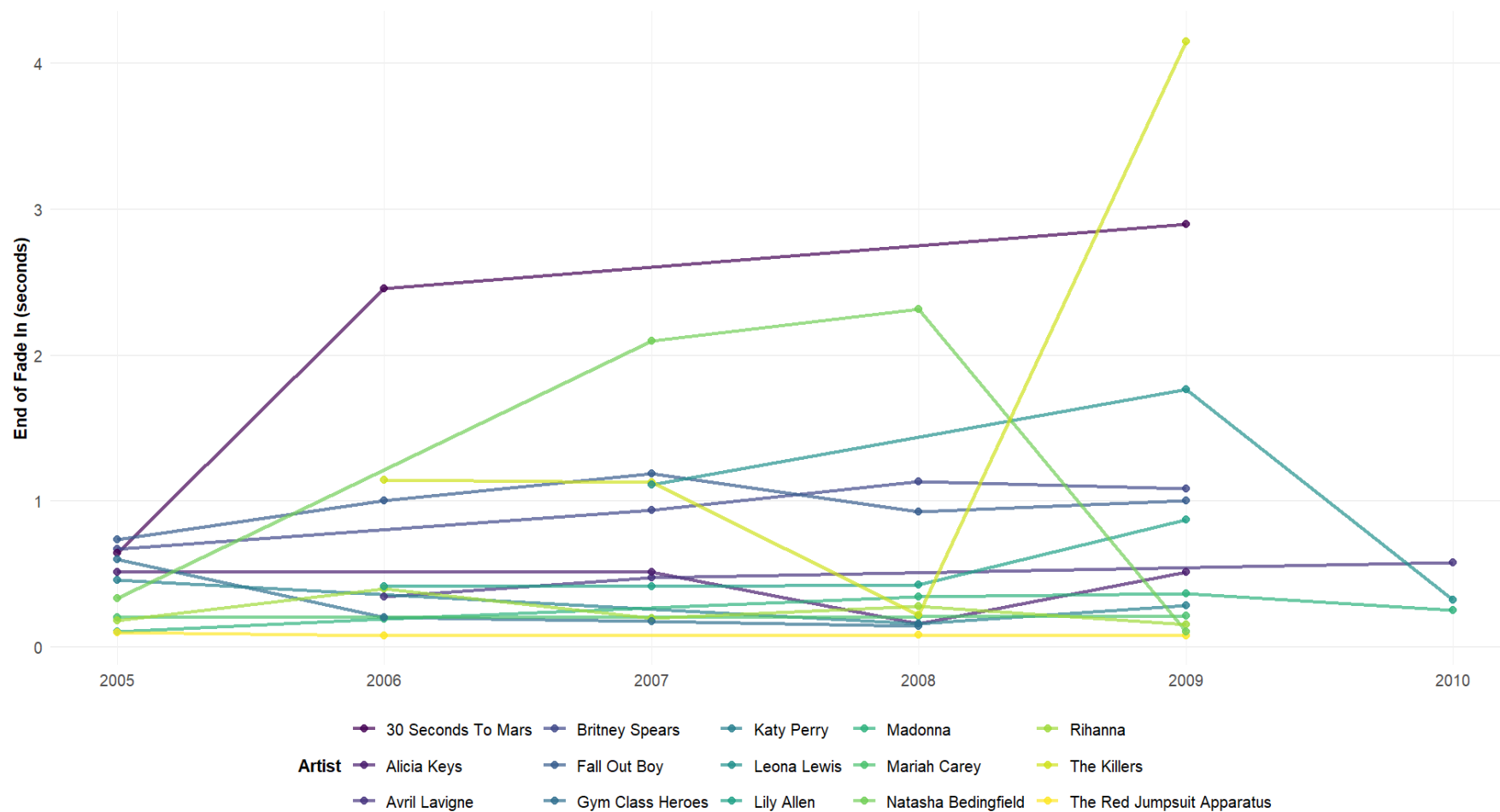
VISUALISATION PRESENATATION

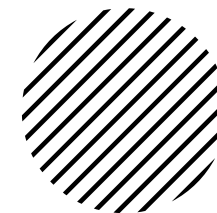
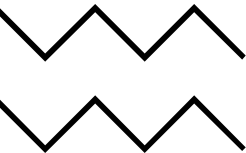




End of Fade In Trends for Top 15 Artists (2005-2010)

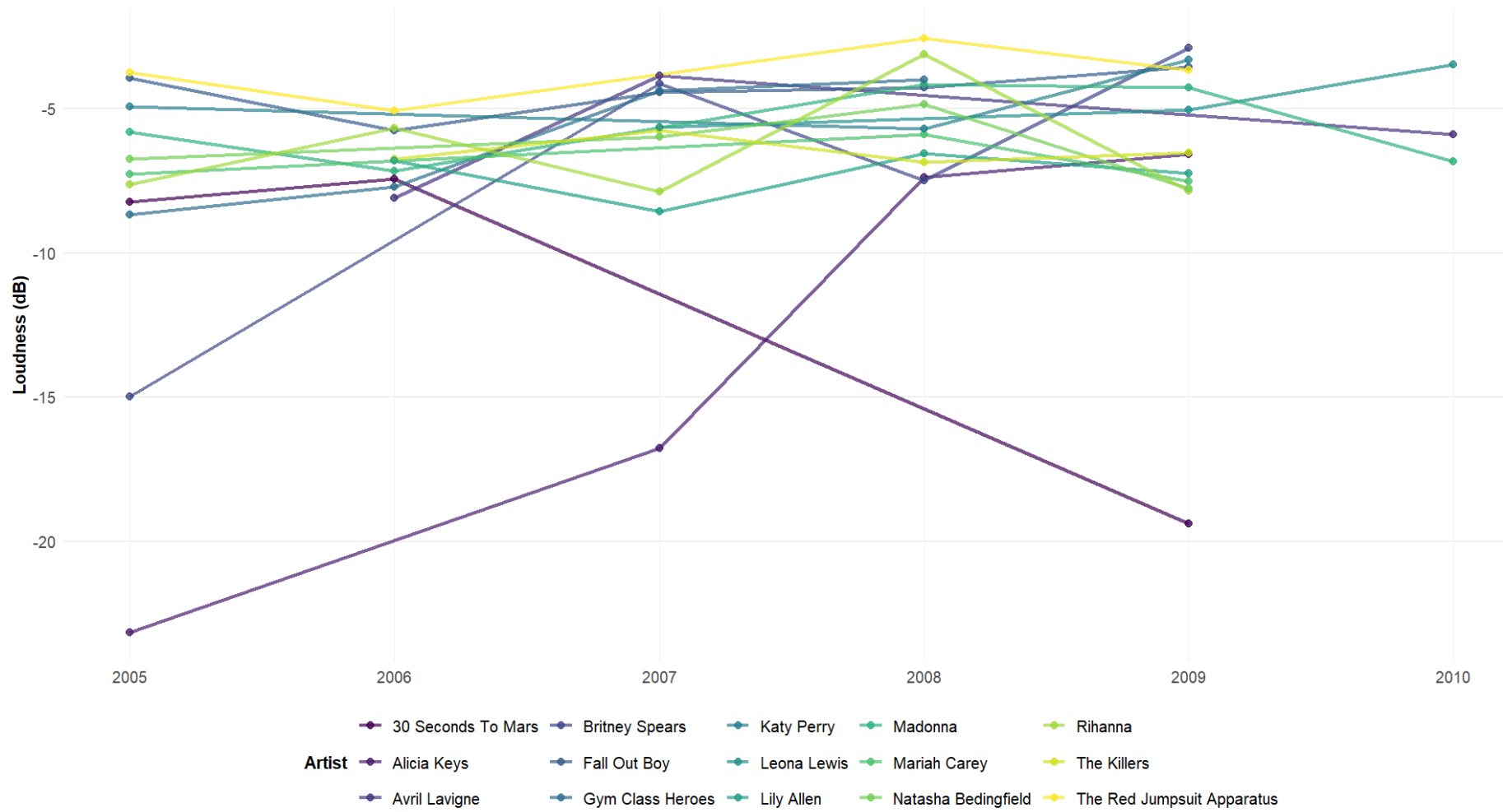
Trends across years for top 15 artists by artist familiarity.

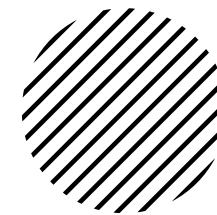
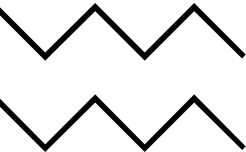




Loudness Trends for Top 15 Artists (2005-2010)

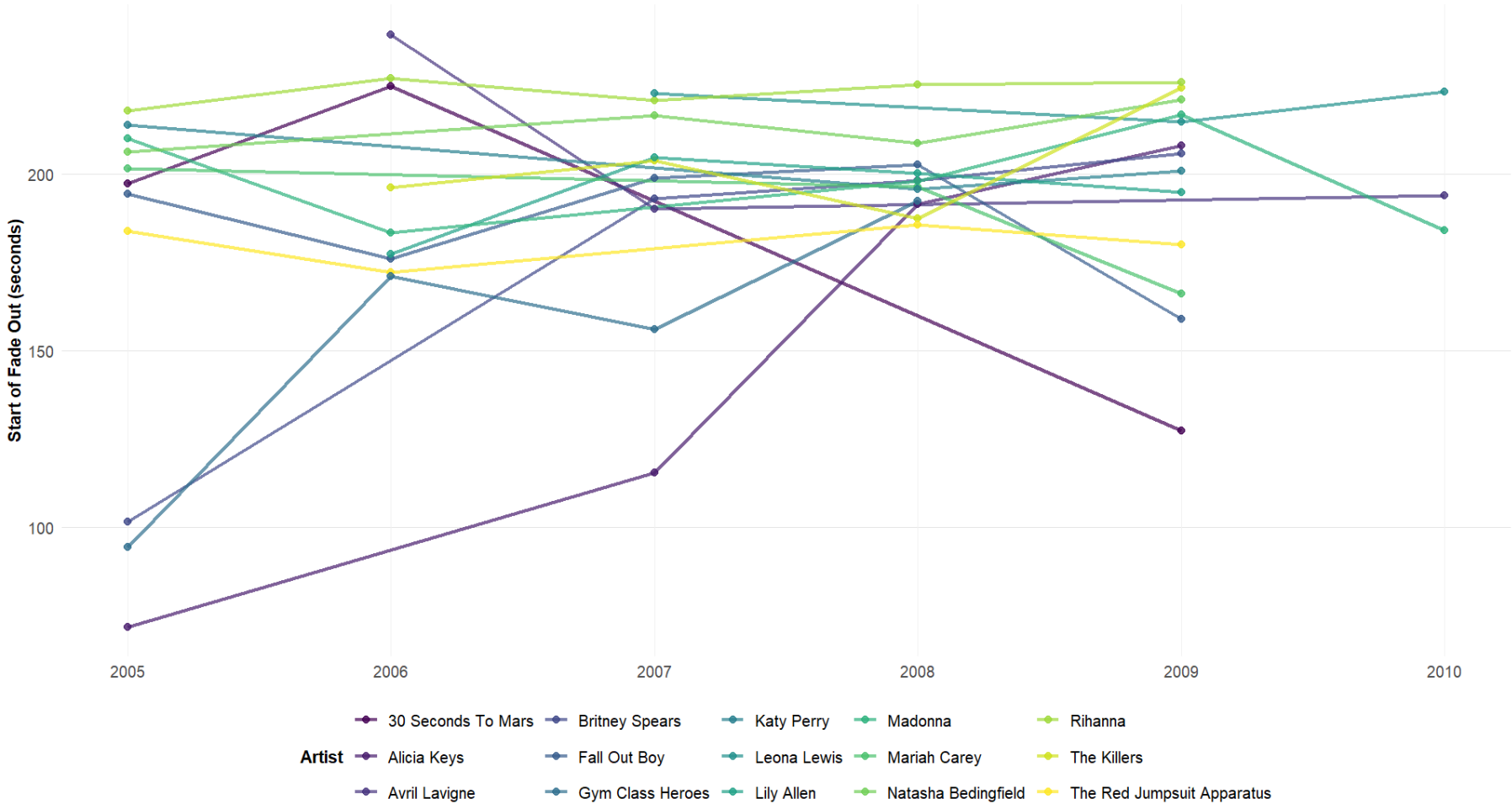
Trends across years for top 15 artists by artist familiarity.

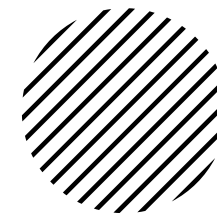
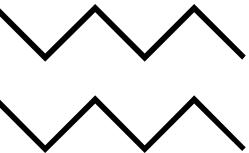




Start of Fade Out Trends for Top 15 Artists (2005-2010)

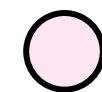
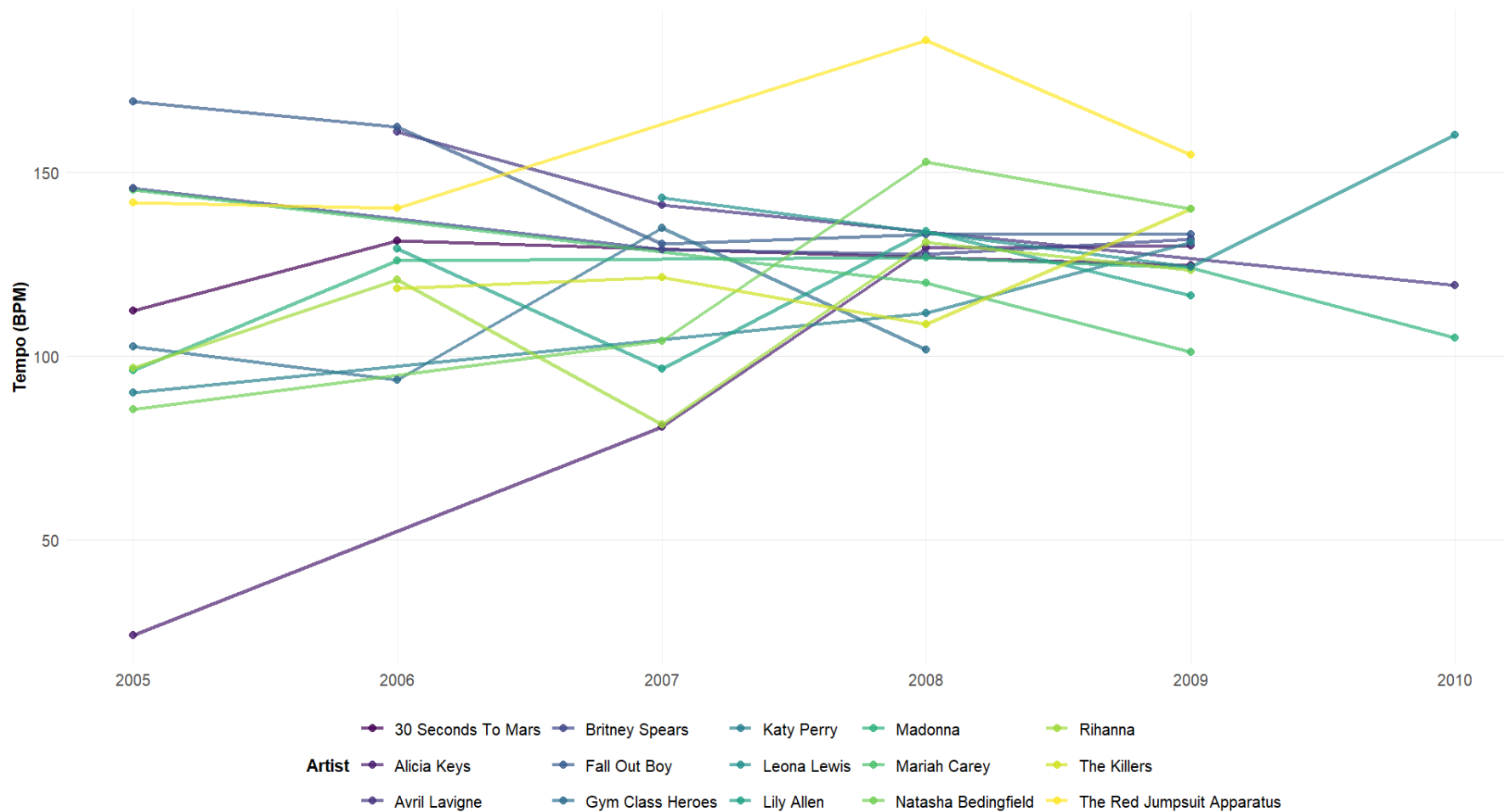
Trends across years for top 15 artists by artist familiarity.

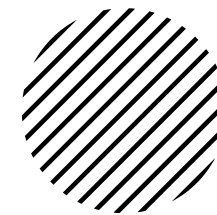
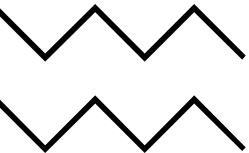




Tempo Trends for Top 15 Artists (2005-2010)

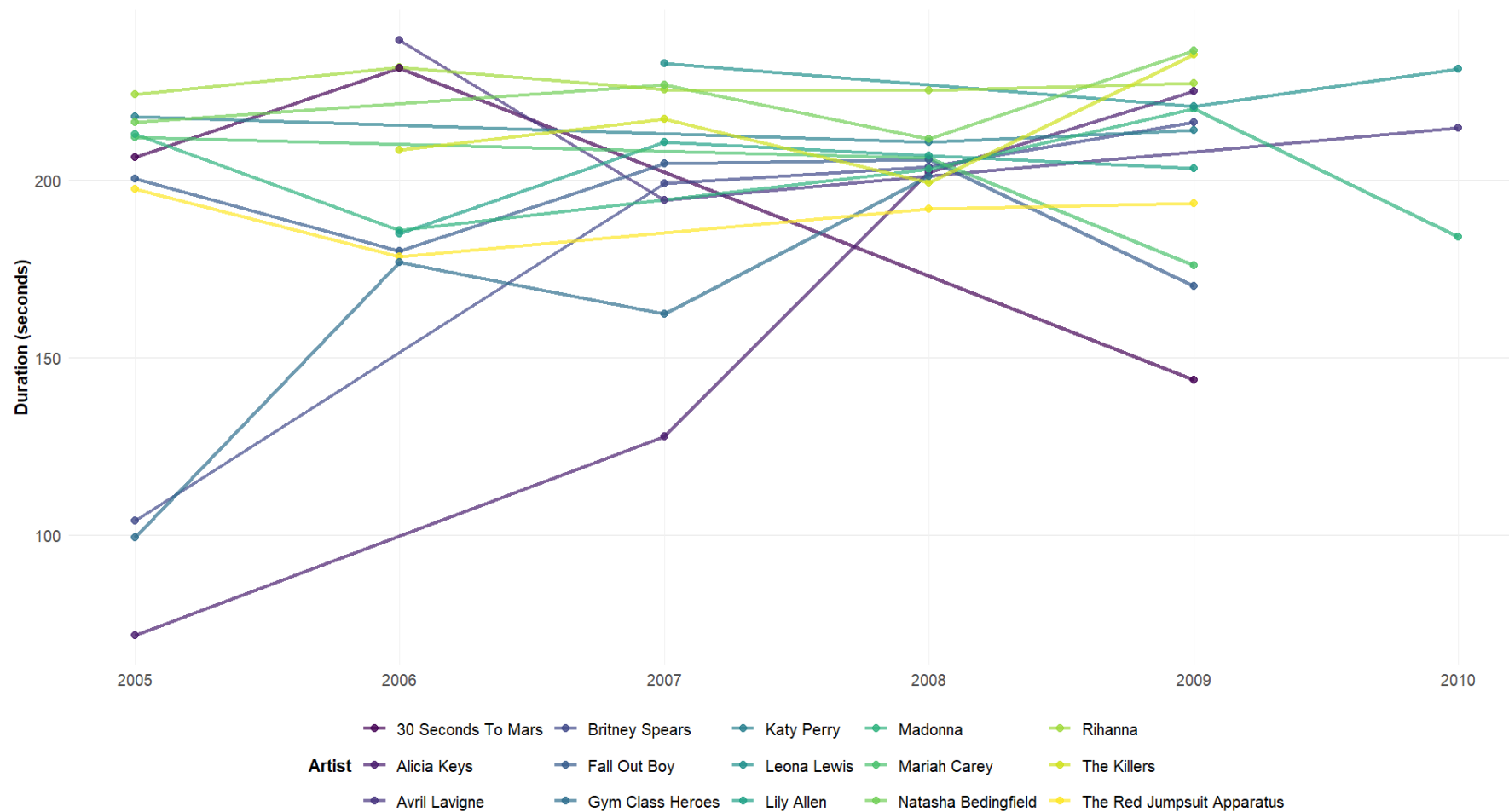
Trends across years for top 15 artists by artist familiarity.

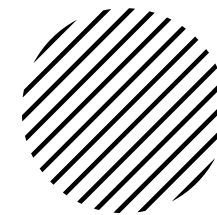




Song Duration Trends for Top 15 Artists (2005-2010)

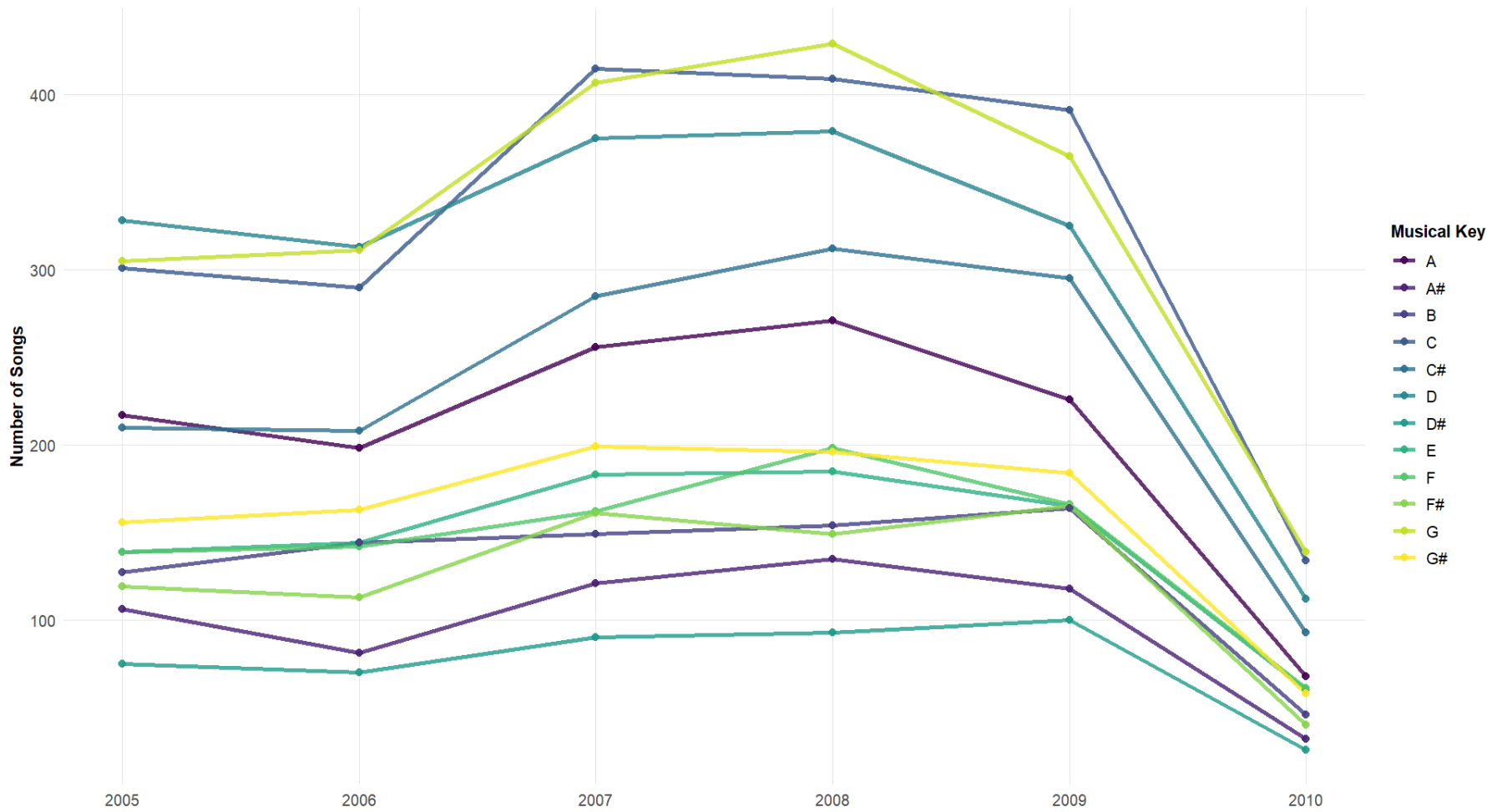
Trends across years for top 15 artists by artist familiarity.

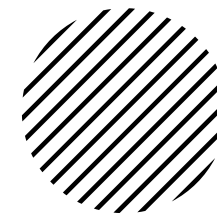




Major Key Distribution Over the Years (2005-2010)

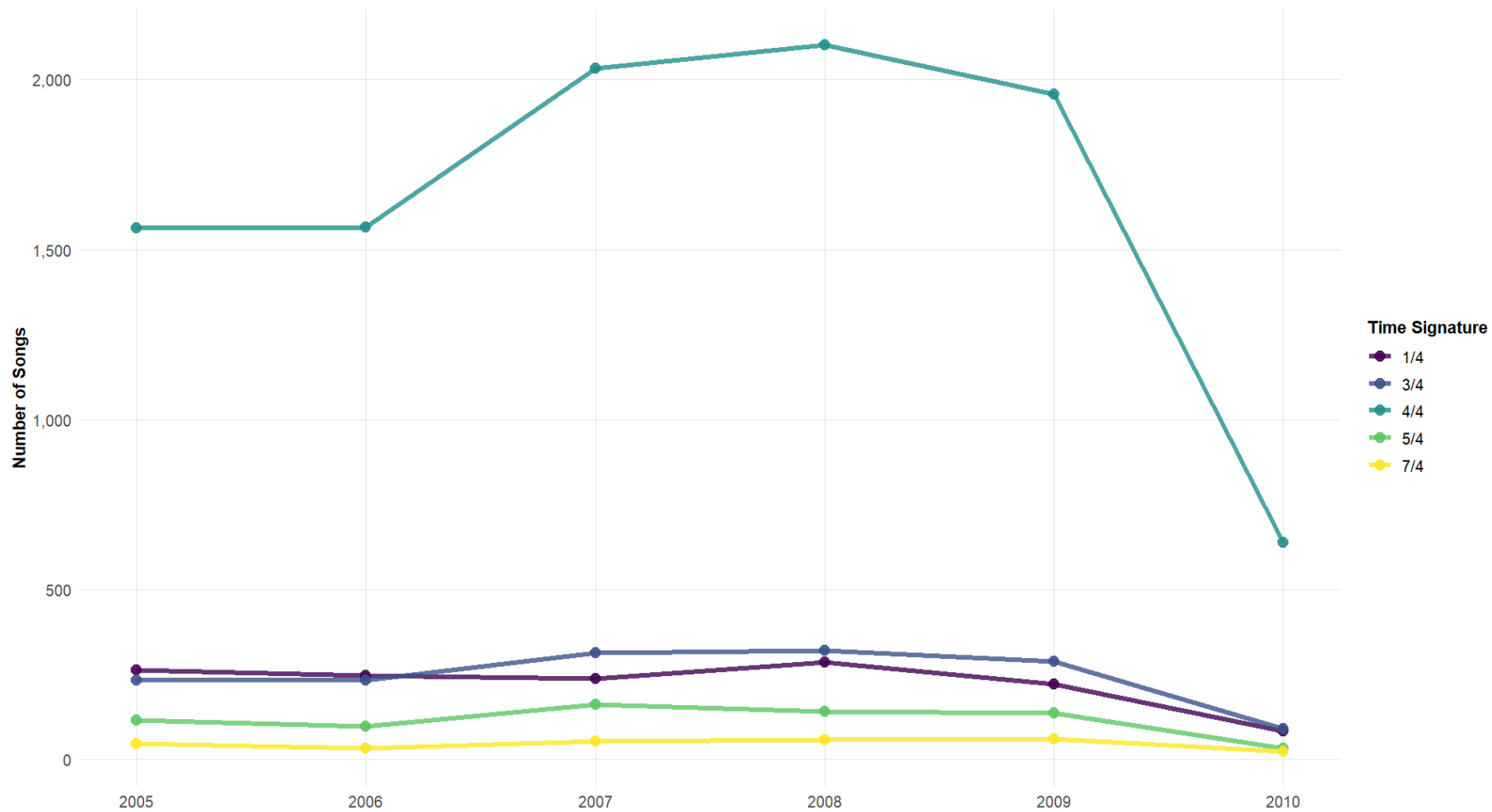
Popularity of different major keys used in popular songs across the years from artists above the threshold.

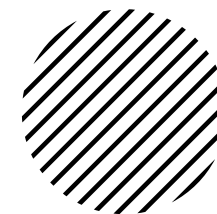
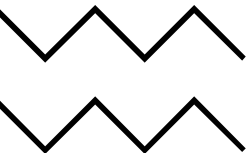




Time Signature Distribution Over the Years (2005-2010)

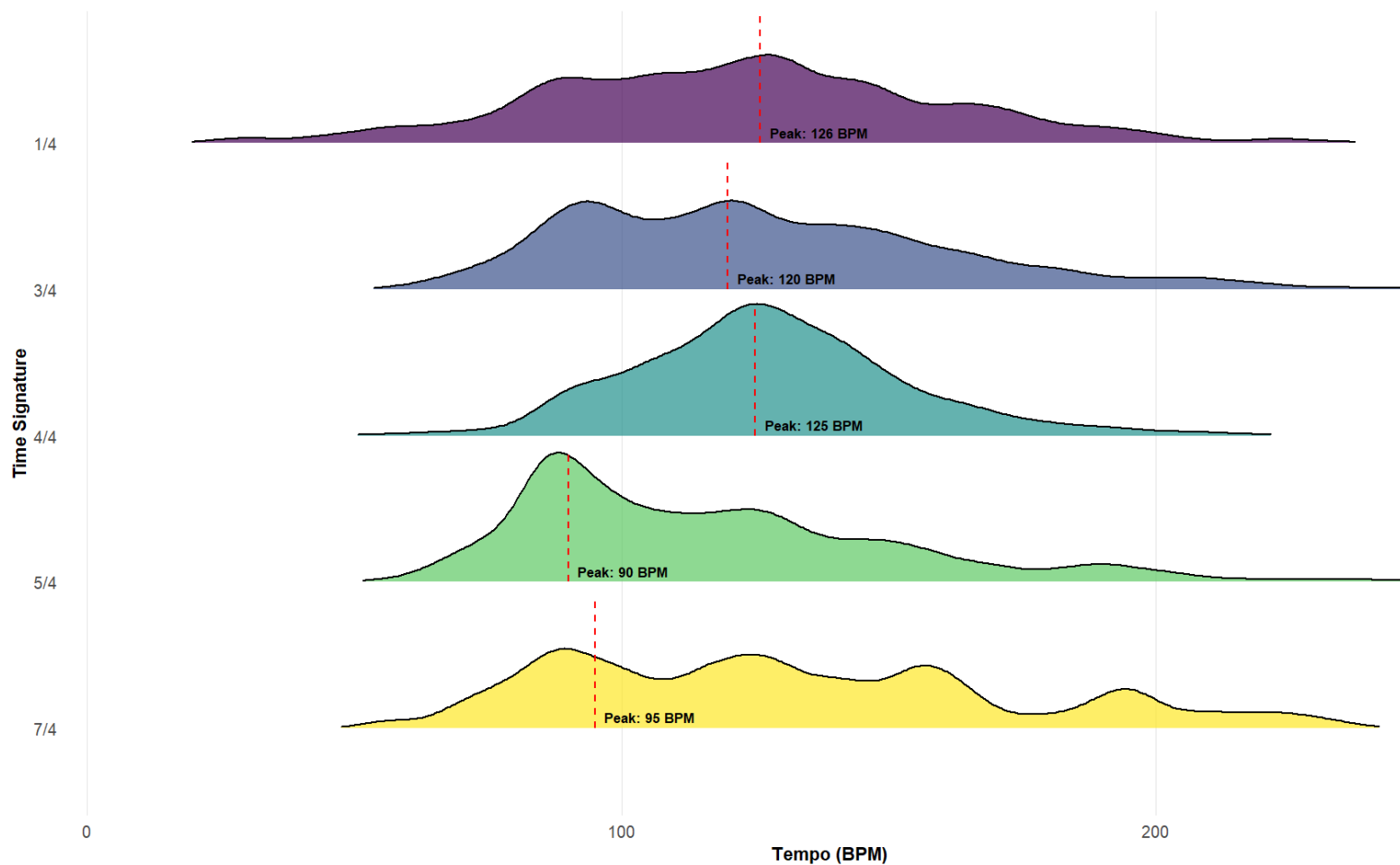
Popularity of time signatures used in popular songs across the years from artists above the threshold.





Tempo Distribution by Time Signature (2005-2010)

Density curves showing patterns between tempo and time signatures. Red dashed lines indicate the most common tempo (peak) for each time signature.





Value for YOU?

- Higher ticket sales through optimised artist/song selection.
- Stronger sponsor appeal via data proven audience engagement insights.
- Reduced risk of selecting not suitable candidates by aligning with industry success patterns.
- Optimise songs and artists selection maximises crowd energy and repeat attendance.
- These visualisations are extremely helpful for future artists and song selections.



Key Insights

Artist Selection

- Artist familiarity should be considered first, song hotness second, and artist hotness third
- Prioritise artists with:
 - <60% average artist familiarity
 - <45% average artist hotness
 - <50% average song hotness
- Suggested 10 artists by artist familiarity and cumulative song hotness

Song Selection

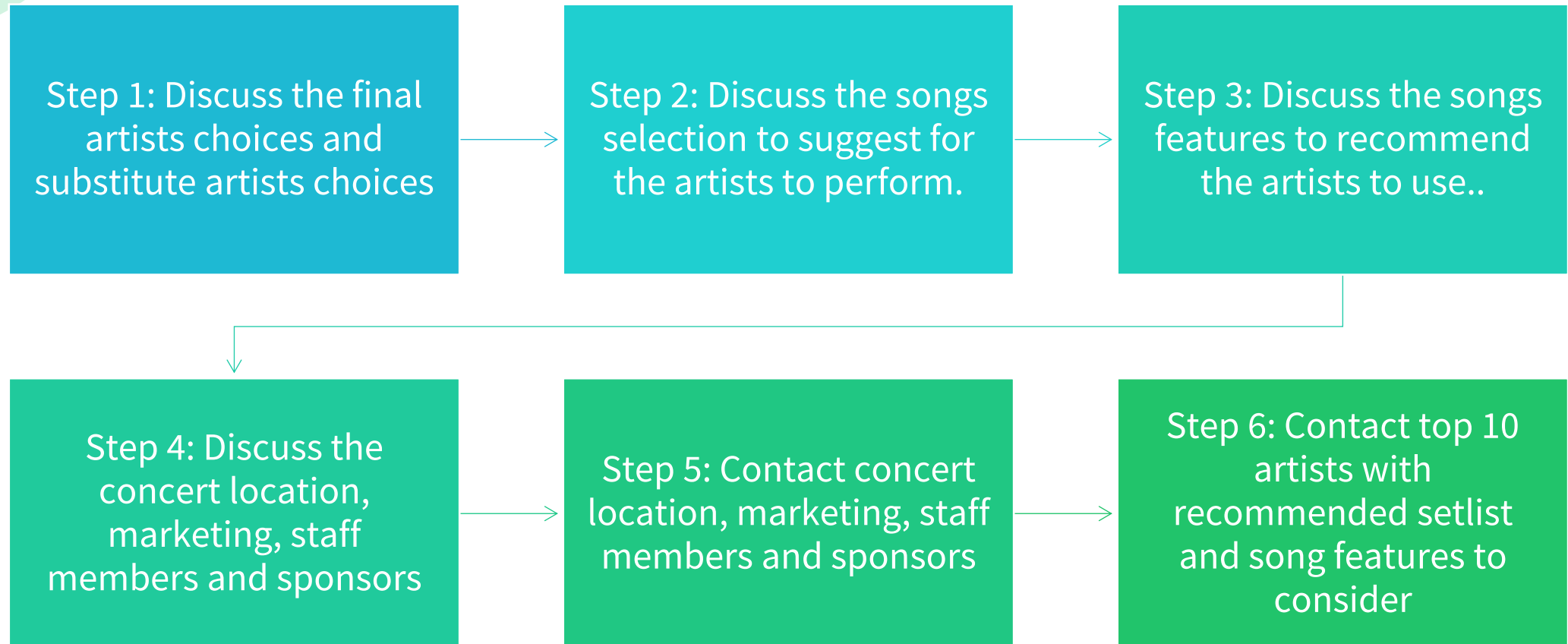
- Suggested top four songs for each selected artist.
- Prioritise the selected artists' songs with:
- Selected artists have all songs' hotness are above 60%

Songs Features Adjustments

- Most recommended:
 - End in Fade-in: 0-1s
 - Loudness: -4dB to -8dB
 - Start of Fade out: 150s-225s
 - Tempo: 100-150 BPM
 - Duration: : 150-225 seconds
 - Key: C, D and G
 - Time signature: 4/4
 - Use 120~ BPM for 4/4, 3/4, 1/4
 - 90~ BPM for 5/4 and 7/4
- Consider the correlation between start of fade out and duration



Actions To Do





What is Next

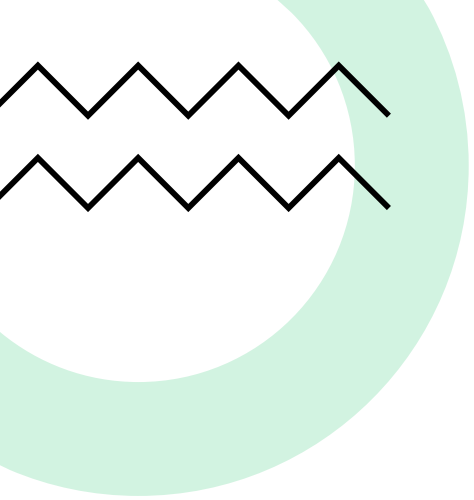
Goal: Gather customer feedback after the performance

Purpose: To validate the insights found has helped the artist and song selections by improving the audience experience. In addition, discover insights and opportunities to improve the artist and song selection process.

Methods: Post event surveys, social media sentiment and crowd behaviours, RFID wristbands

Data (1-5 scale): artist enjoyment, song recognition, overall energy levels, crowd density, etc





Future Project

Project: Visualising Customer Feedback

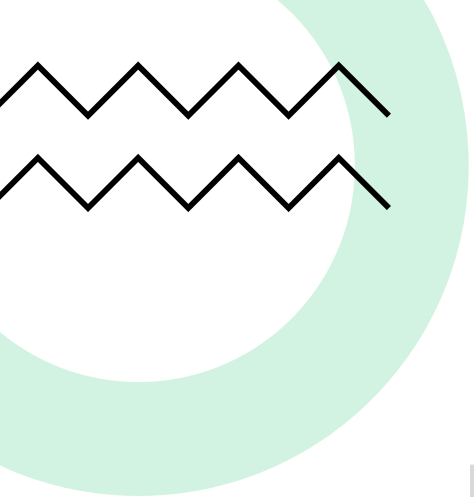
What It Looks Like:

- Transform customer feedback into actionable to improve the selection process.

Visualisations:

- Heatmap of customer feedback to identify correlations between the features in customer feedback for each song
- Line plots of customer feedback features (crowd energy, crowd density) over the event duration, to identify patterns when the tempo, time signature and key changes.
- Bar plots of the customer feedback features (e.g. enjoyment scales) and the artists/songs, to identify which artists/songs the audience enjoyed the most.





What We Would Do Differently:

Limitation	Approach	Impact
Limited historical data	Incorporate 2020-2024 trends to capture audience preferences.	Adjust artists and songs to match the modern audience preferences.
Limited song features	Analyse other song features from the original million song dataset such as energy, danceability, etc.	Gain different insights of the other song feature trends to enhance the analysis and improves the selection process.
Limited Visualisation	Expand visualisations such as use parallel coordinates plot to compare the multiple song features at the same time.	Reveals hidden patterns to enhance the analysis.
Limited Analysis	Used advanced analysis such as clustering such as group artists by specific song features	Gain deeper insights of the relationships in the data to enhance the analysis and improves the selection process.

