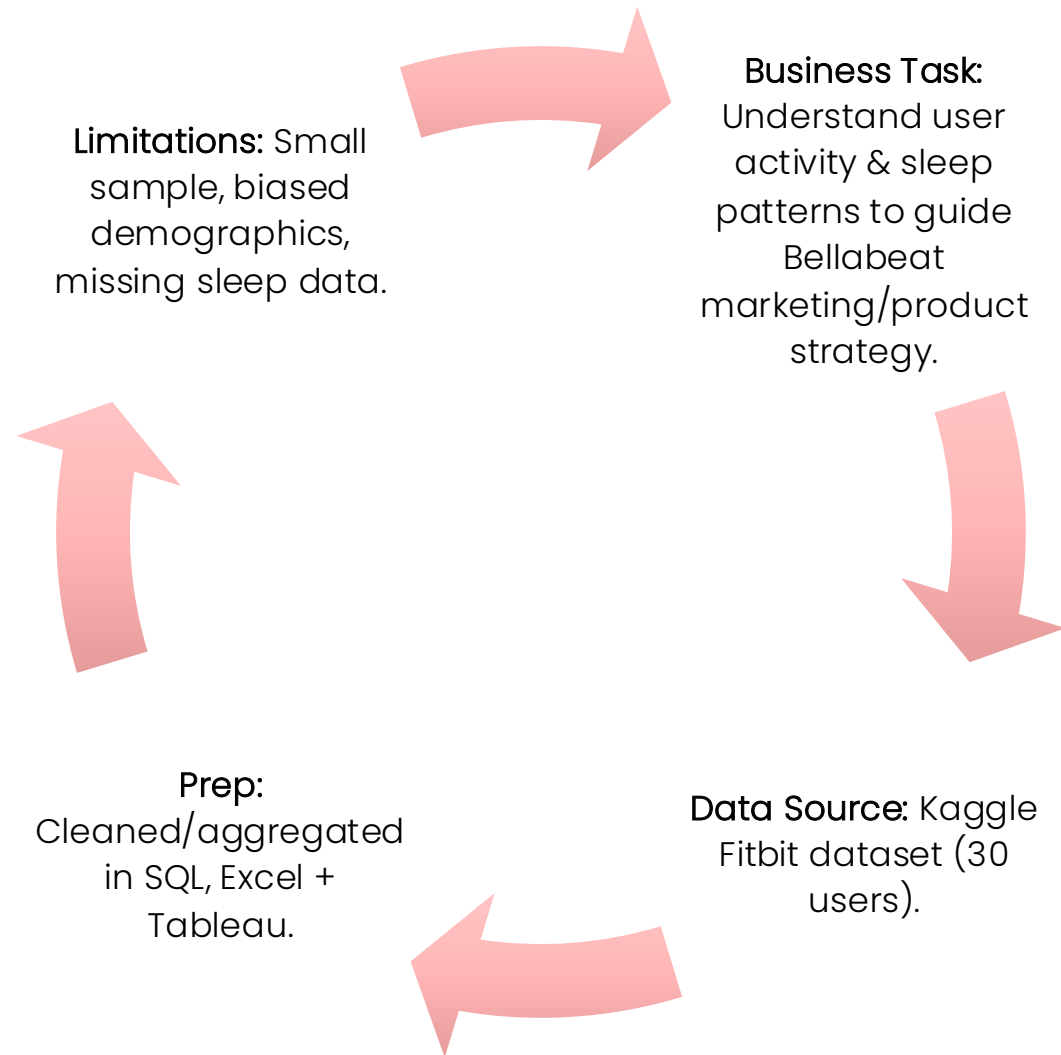# BELLABEAT: SMART USAGE INSIGHTS → MARKETING ACTIONS

- Case study using Fitbit dataset (30 users, CC0)

- Cleaned in BigQuery (SQL) + Excel, visualized in Tableau

Presented by Axel Vaquero

BUSINESS TASK & DATA

Business Task: Understand user activity & sleep patterns to guide Bellabeat marketing/product strategy.

Data Source: Kaggle Fitbit dataset (30 users).

Prep: Cleaned/aggregated in SQL, Excel + Tableau.

Limitations: Small sample, biased demographics, missing sleep data.

PATTERNS (WEEKDAY ACTIVITY)

- **Highest steps:** Wednesday (7,500) & Saturday (7,000).
- **Lowest:** Tuesday (4,900).
- Insight: Midweek + weekend = best for engagement campaigns.

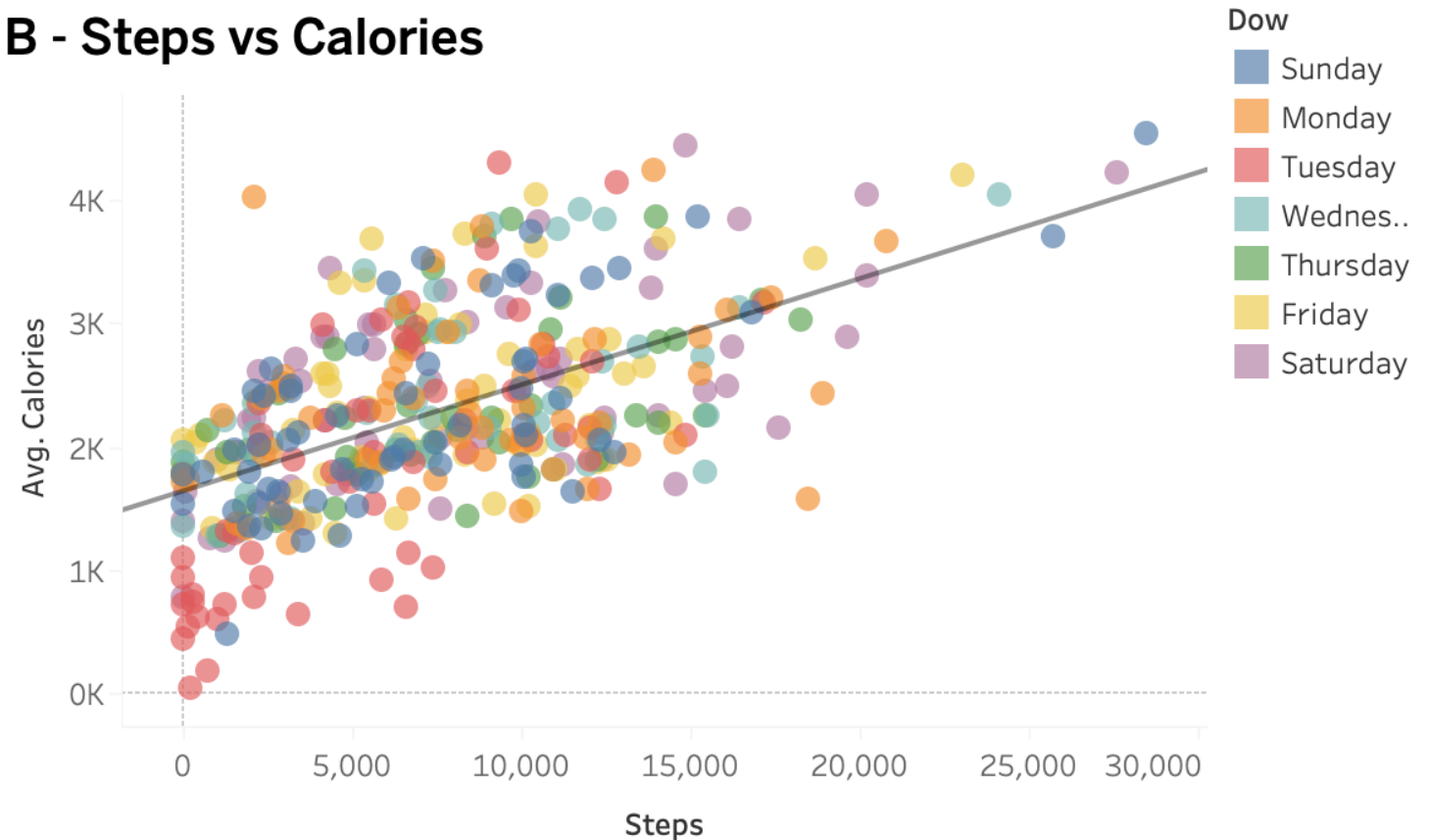A) Average daily steps by weekday
30 users; sample CCO Fitbit

Pct Vs Overall
-25.70   13.60
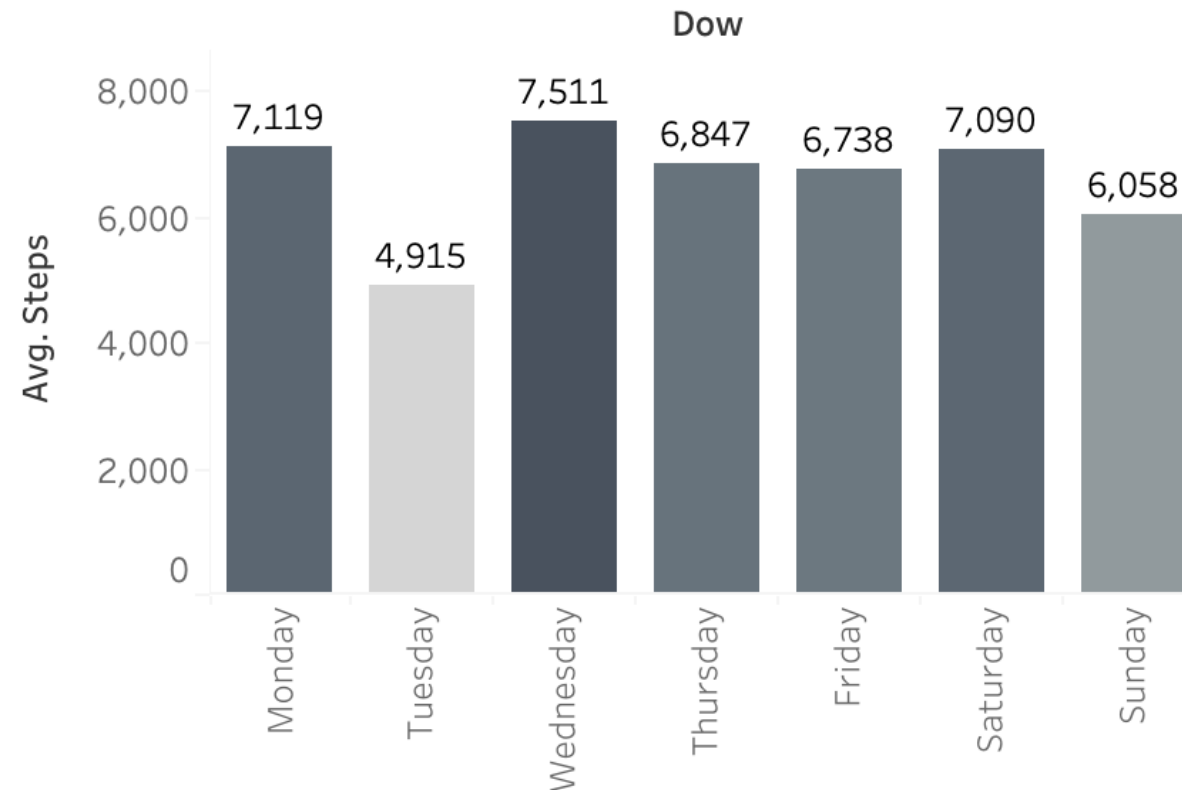
RELATIONSHIP (STEPS & CALORIES)

- Strong **positive correlation**: more steps → more calories burned.

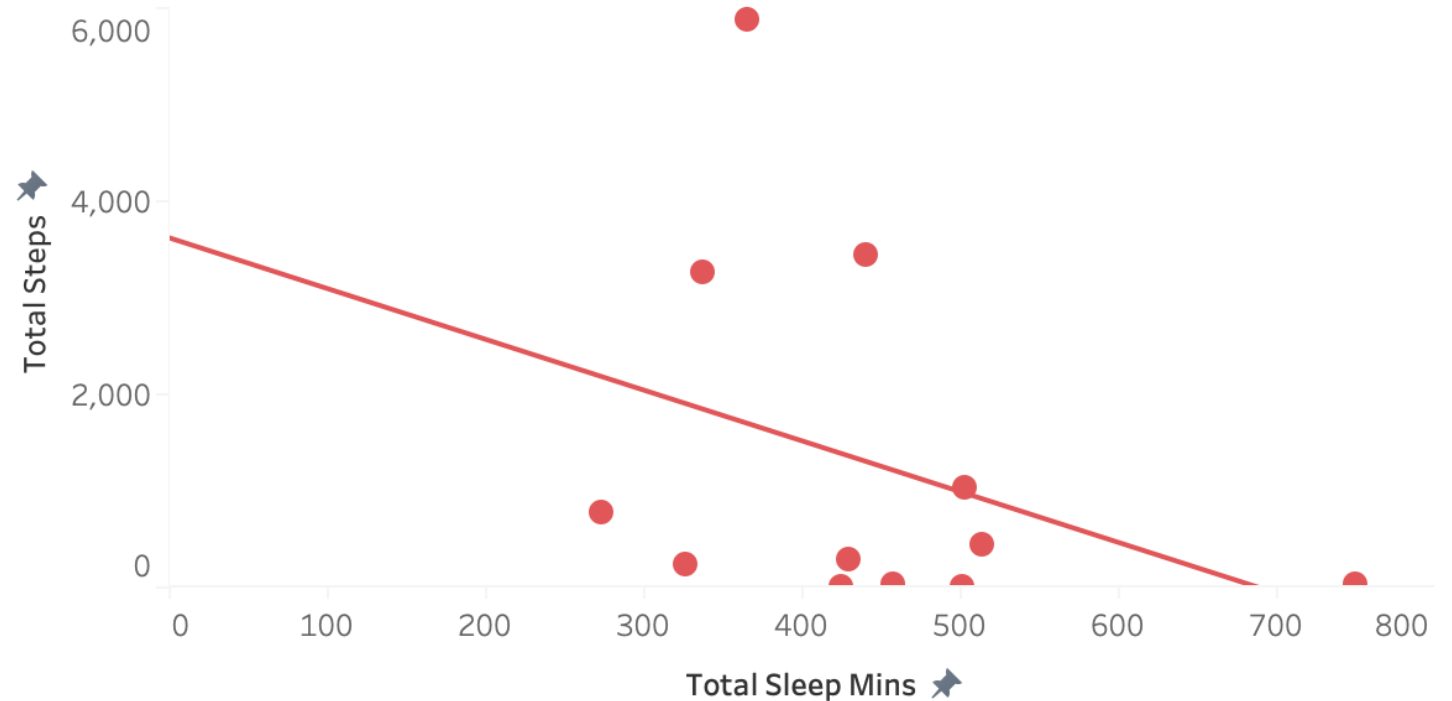- Validates Bellabeat trackers for fitness/weight management use cases.

B - Steps vs Calories

SLEEP VS ACTIVITY

- Slight **negative trend**: users with <6h sleep average 4,000 steps vs 7,000 for those with 7–8h.

- Caveat: sparse data (only 12 users logged sleep).

- Suggests recovery impacts activity → opportunity for sleep coaching nudges.
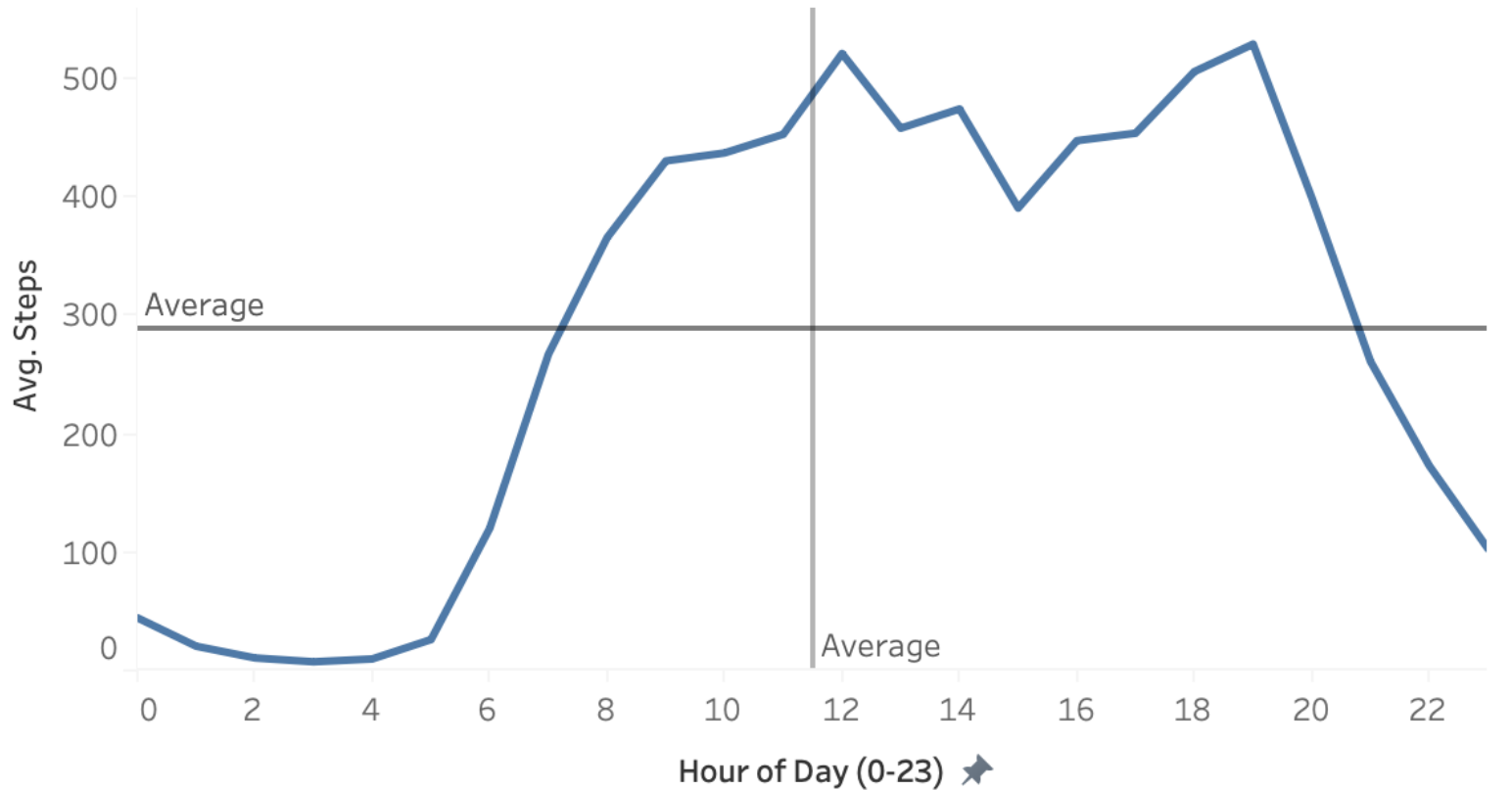

C - Sleep vs Steps

Only 12 days have both sleep + steps recorded; limited sample size.

HOURLY RHYTHM

- Steps **lowest overnight (0–5 am)**.
- Peaks at **12–1 pm** and **6–8 pm**.
- Insight: Ideal notification times = 11:30 am & 5:30 pm (pre-peak nudges).

D) Average steps by hour (0-23)

Recommendations for Leaf Tracker

1

Timing prompts: Push reminders 30–60 min before peak activity hours.

2

Weekday programs: Launch Wednesday & Saturday challenges.

3

Sleep balance: Add bedtime reminders + gentle alarms for <6h sleepers.

4

Sedentary alerts: Trigger nudges after 2 hours inactivity.

5

Upsell opportunity: Promote premium coaching around peak times.