Understanding Tourism Dynamics in Destinations through Mobile Phone Data
San Fermín
800m de adrenalina.
10,000km² de calma.

800m of adrenaline.
10,000km² of tranquility.
San Fermin: a powerful international brand from Navarre

Background information:

• An international touristic product of Navarre.
• A concern in the sector about the decline of tourists from some international markets.
Study of sentiment analysis in online media and social networks about the San Fermin brand (2016)
Actions 2017–2018–2019

- Studies of visitor profile and impact of the festival.
- Marketing actions
- Welcome Brochure: good practices to enjoy the festival.
- Visitor welcome network
- Creation of a round-table about San Fermin
Studies: Questions

- How many people come to San Fermín?
- How do they come?
- How long do they stay?
- What economic impact does the festival have?
- Do they behave differently according to origin?
- What do they like most about San Fermin and what do they like least?
Studies: Actions

- Mobile phone data
- Surveys of tourist apartment managers
- Data of tourism activities companies
- Surveys Visitor welcome network
- Surveys in hotels
- Occupancy and consumption data
- Vehicle counting stations
Big data from mobile phones

Objectives

- Knowing how many people come
- Knowing where they come from
- Knowing how long they stay
Big data from mobile phones

Some details about the study:

• Working group with the department of statistics and innovation
• San Fermin: 6–14 of July (9 days/9 nights)
• Study analysis period: from June 15 to July 31, 2018
• 3 Areas of study
Big data from mobile phones

Data information:

- Number of visits
- Number of unique visitors
- Origin: residents (Navarre, not Pamplona), Spanish visitors (by region) and foreigners (by country).
- Tourists and hikers
- Socio-demographic profile of Spanish visitors: sex and age.
- Information by different time slots: by day and by 30 minute strips
- Presence at night (Overnights)
- Assistance flows by zones
Big data from mobile phones: Methodology

- Mobile phone pickup
- Data corrections and cleanups
- Anonymization
- Extrapolation and elevation
- Data Report delivery
Big data from mobile phones: **Advantages**

- Quantifying attendance at events difficult to measure
- High level of data detail
- Raw data that allows processing in BI tools
Big data from mobile phones: **Disadvantages**

1. Mobile data providers aren’t tourism experts
2. Lack of transparency about the data extrapolation process
3. Standardized data that isn’t always useful
4. Price $
Big data from mobile phones: **Recommendations**

- Having the advice of experts in statistics or in measurement.
- Agreeing on what will be measured
- Defining deliverables
- Crossing data with other sources to perform verifications and comparisons
- When measuring specific events, it’s important to collect data from ordinary periods
- Data provider has data analysts for after-sales service