Pen-and-paper data collection method for cyclists, in Lisbon

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Lisbon

- Starter city
- Rapid evolution
  - 0.2% in 2011 to 2.0% in 2019
- Dynamics
  - Major infrastructure expansion in 2017
  - Bike sharing system in 2018
  - E-scooters in 2019
- Segregated but fragmented cycling network
Data collection

- One automatic counter installed, collecting data since 2016
- Information on who is cycling?
  - Shared and private bicycles
  - New modes, such as e-scooters, hoverboards, etc
Pen and paper method

• How we do it?
  ▫ **Intersections** (2 to 4 way)
  ▫ 15min periods, 2h RH peaks >> 4h/day
  ▫ 45 to 60 locations
  ▫ **Spring week** (late May)
  ▫ Trained and paid labor
Locations

- 60 observation points
  - 45 for two years
- Existing and planned infrastructure
- Commuting trips

- Team of about 10 people
  - 400 counting hours + preparation and data analysis hours
Data collected

- Directions
- Demographics
  - Gender
  - Age: 3 categories
- Shared / private vehicle
- Helmet use
- Bicycle
  - Urban, MTB, folding, e-bike
  - Cargo, children carrying
- Trip purpose
  - Sport/fitness, Leisure, Deliveries
- E-scooter and other
Kid

Shared

Cycle path

+1
Trends

• 3-fold growth between 2016-2017

• An overall 2.5-fold growth between 2017-2018

• Bike-sharing accounted for 34% of all trips in 2018
Information relevant for planning

Women’s share increased from 17% to 23%, Helmet use decreased from 47% to 31%
Pros vs. Cons

Pros:
- Lower cost
- Flexibility
  - Locations, features
  - Adapted to infrastructure planning
- Detailed information
  - Directions and characteristics
  - Vehicle types
- Count the cyclists off the dedicated infrastructure
- “Snapshot”
- Tech independent
- Fast data processing
  - Instant profiling

Cons:
- Not continuous
  - Sample
  - Rush hours
- Demands a good planning and testing
- Dependent on people
  - Observation skills
  - Subjectivity of appreciations from different persons
• Lisbon, a starter city, has been using this method for 4 years
  ▫ Reliable, adaptive to planning processes of infrastructure

• Where people cycle and who they are?
  ▫ Instant profiling of a city
  ▫ Diversity of cyclists

• Between high-tech and low-tech, smart-tech

See you in Velo-City Lisbon!