Using GPS data from the European Cycling Challenge

In support of the cycling policy of the European Metropolis of Lille (MEL – France)
LILLE – LOCATION AND MAIN FEATURES

- 15th largest European Metropolis, with 1.1 million inhabitants
- 4th largest urban area in France after Paris, Lyon and Marseille (611,45 km² surface area)
- 2.2 million inhabitants in a Franco-Belgian European Metropolis
- A young population: 35% of inhabitants are under 25 years old
- 85 municipalities making up a both rural and urban metropolis
The Metropolis of Lille characteristics:
- Polycentric,
- Half urban and half rural,
- Almost flat everywhere!
- Has the same beautiful weather than Belgium or Netherlands: perfect for urban cycling!

Infrastructures:
- 700 km cycling paths
- 2 metro and 1 tramway line.
Quintuple cycling daily practice (from 2% to 10% in 2020)

Actions related to:
- Infrastructure
- Bike parking
- Services
- Communication and promotion

→ European Cycling Challenge
Objectives: Behaviour change, Cyclist’s motivation, Daily physical activity and Active urban planning

Since 2012, between 1st- 31 May
A game involving 52 european cities (2016)
MEL: 1 600 persons registered, 1 000 actively participated
More than 100 teams were created (universities, companies, public institutions…)

Tools: an app’ and a platform
First of all: a great mobilisation and lots of fun!

Our closing event, 2/06/2016, Btwin store (Décathlon)
We have several sources, but they are all incomplete:

- **Household surveys**: carried out every 10 years, quite small sample of cyclists (2%)
- **Counting loops**: 30 points on a large territory (611 km²)

GPS data gives us insight about:

- Itineraries, speeds
- Use of existing infrastructure
- Profiles and trips purposes (limited information)

→ **GPS Data from the Challenge is complementary and cheaper!**

→ **We’re going to compare it to the 2016 Household survey** (at the first view: some correlations, % male / female for example)
USE OF DATA

RAW DATA
.CSV format (or GPX)

HEATMAPS

FLOWMAPS

GIS Software

Thanks to this data, a comparison is possible with:
- existing infrastructures
- planned infrastructures

And…
Creating Origin-Destination matrices is possible!
A first view on how different territories took part to the Challenge

45 % : origin and/or destination in **Lille**

25 % : exchange trips between Lille and its **neighbouring cities**

33% : origin and/or destination in the **eastern territory**

→ In deep analysis will be only possible on those territories
• Due to GPS precision, we chose to represent a pattern of large hexagones.

Visual analysis

• Main roads clearly come up.
MULTIANNUAL PROGRAMMING FOR CYCLING INFRASTRUCTURES

Cycling scheme

- Our cycling scheme: A primary and a secondary network
- Building uninterrupted bicycle connections

→ A posteriori: validate of our cycling scheme, and adapt it if needed.
FOCUS ON SPECIFIC POINTS
The « influence zone » of one crossing over the Ring

- A major problematic point of the Cycling scheme

- Direct access to the railway station

→ 2 Million € of road works are planned
→ Search of grants and partnerships
→ This map shows that this point has a large territorial influence
Do you have any questions?

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