

Soft Data and Public Policy: Twitter Data for ESPON Policymakers

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1. Applied research: The ESPON project “Analytical Tools based on Big Data”
2. From the research to the field: interviews of ESPON policy makers

The starting point

ESPON Feasibility Study on Analytical Tools based on Big Data

- Partners: Université Paris Diderot, Université de Lille 3, University of Amsterdam, CNRS
- Coordinator : M. Severo
- Participants: N. Douay, T. Giraud, C. Grasland, M. Nielsen, H. Pecout, R. Rogers, M. Texier

The ESPON Programme

European Territorial Observatory Network

Mission statement : grow the provision and policy use of pan-European, comparable, systematic and reliable territorial evidence to ease policy making.



The objective

Assessing the possibility to use **social media** data along with official data in territorial analysis ?

How and to what extent ?

- “explore innovative possibilities to analyse **open source data from the Web, such as social media** (Facebook, Google+, Twitter, blogs, etc.)”
- “bring new and interesting opportunities to support policy development”.

The promises of “New” Data

| Traditional data | “New” data |
|---------------------------------------------------------------------------|-------------------------------------------------|
| Too long delay of publication | Shorter delay of publication useful for action |
| Insufficient coverage of some topics of interest for territorial cohesion | Coverage of new topics of interest |
| The focus of official statistics on count data related to NUTS units | Availability of data at new geographical levels |
| The top-down definition of data of interest | Bottom-up elaboration & tailor-made information |

Deliverables

- Assess which types of data
- Identify how new data can be implemented in practice and integrated into ESPON analysis by proposing a practical methodology
- Provide 2 practical examples

Real-time follow up of city brand and governance on Twitter communication

| Tweets including the name of the city | Tweets geo-tagged in the metropolitan areas | Tweets of city's influencers |
|----------------------------------------------|----------------------------------------------------|---------------------------------------------------|
| International recognition of the city | Elements of city branding at local level | Real-time follow up of the governance of the city |

Sample: Marseille, Bologna, Edinburgh, Brussels
Period: 2 June – 29 June 2014



Issue 1: variety of uses of Twitter

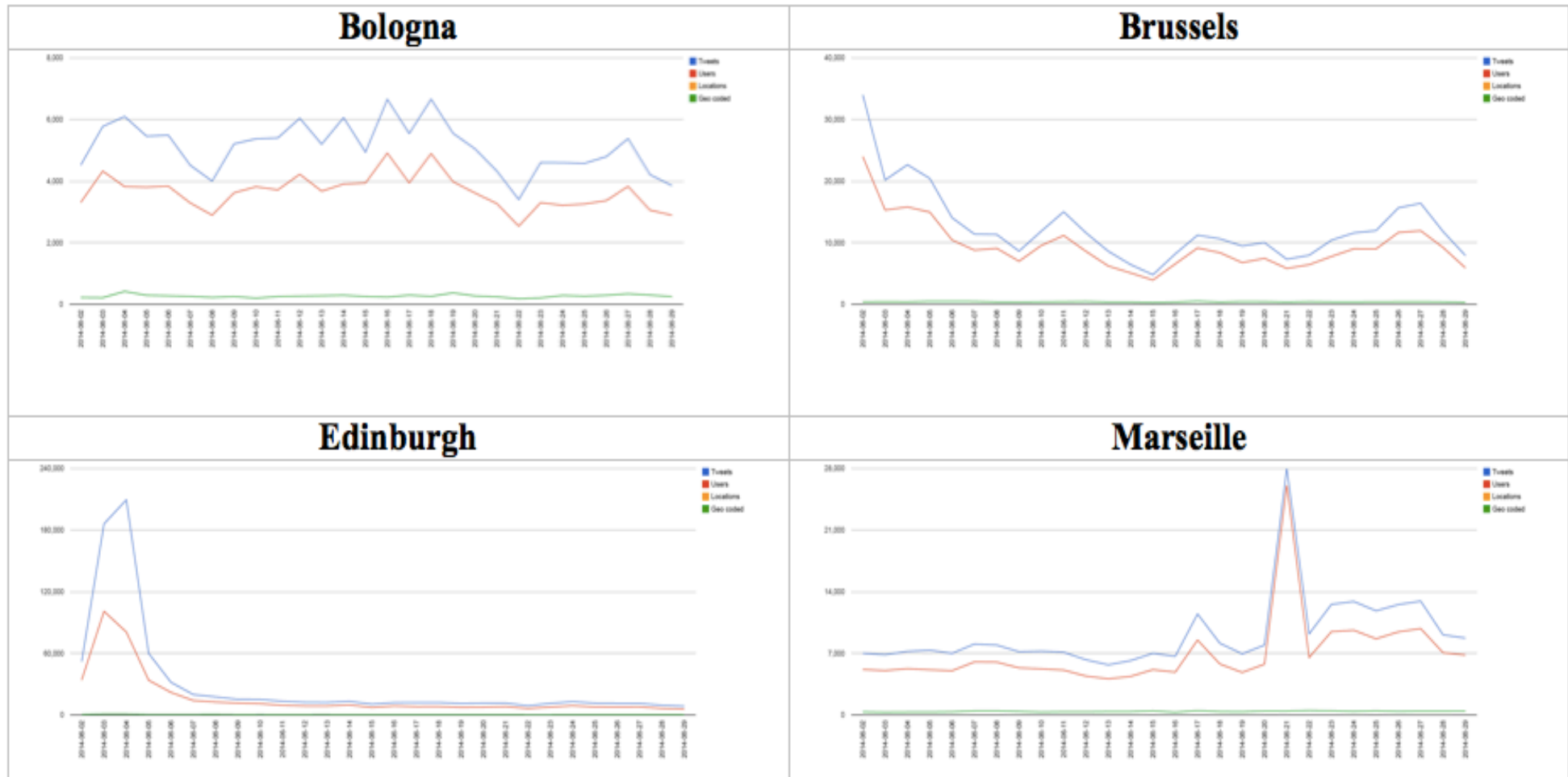
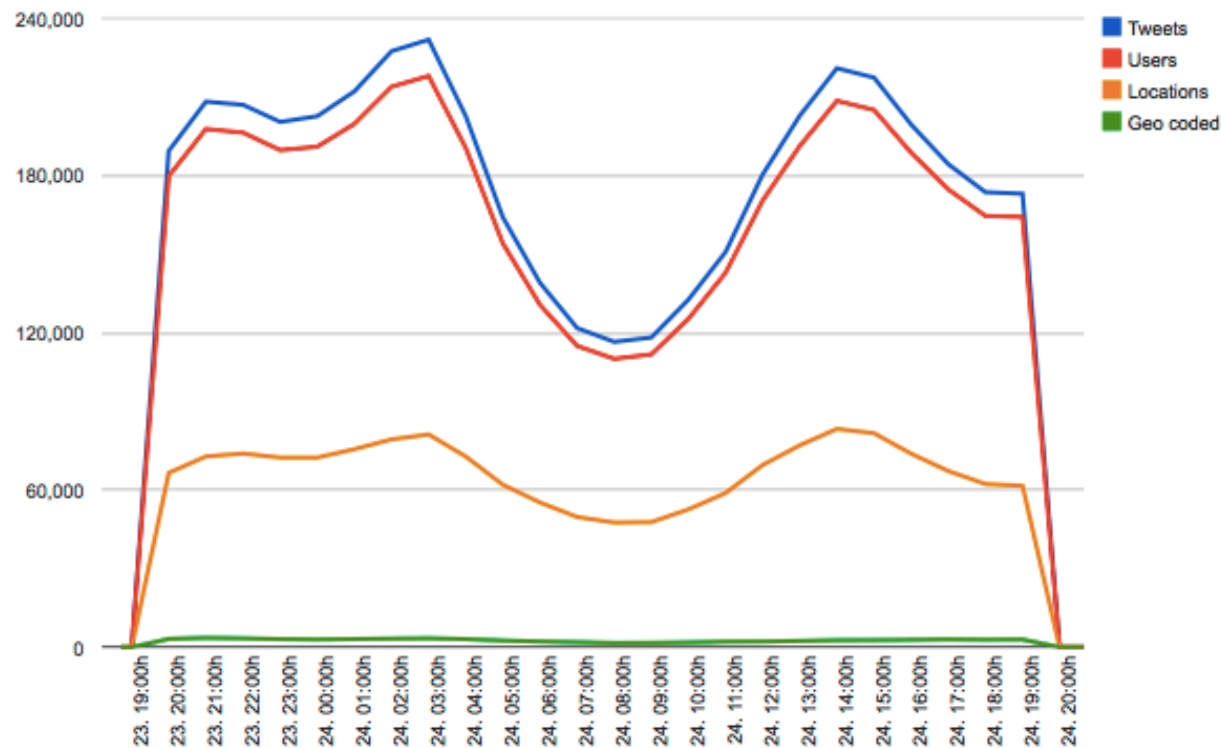


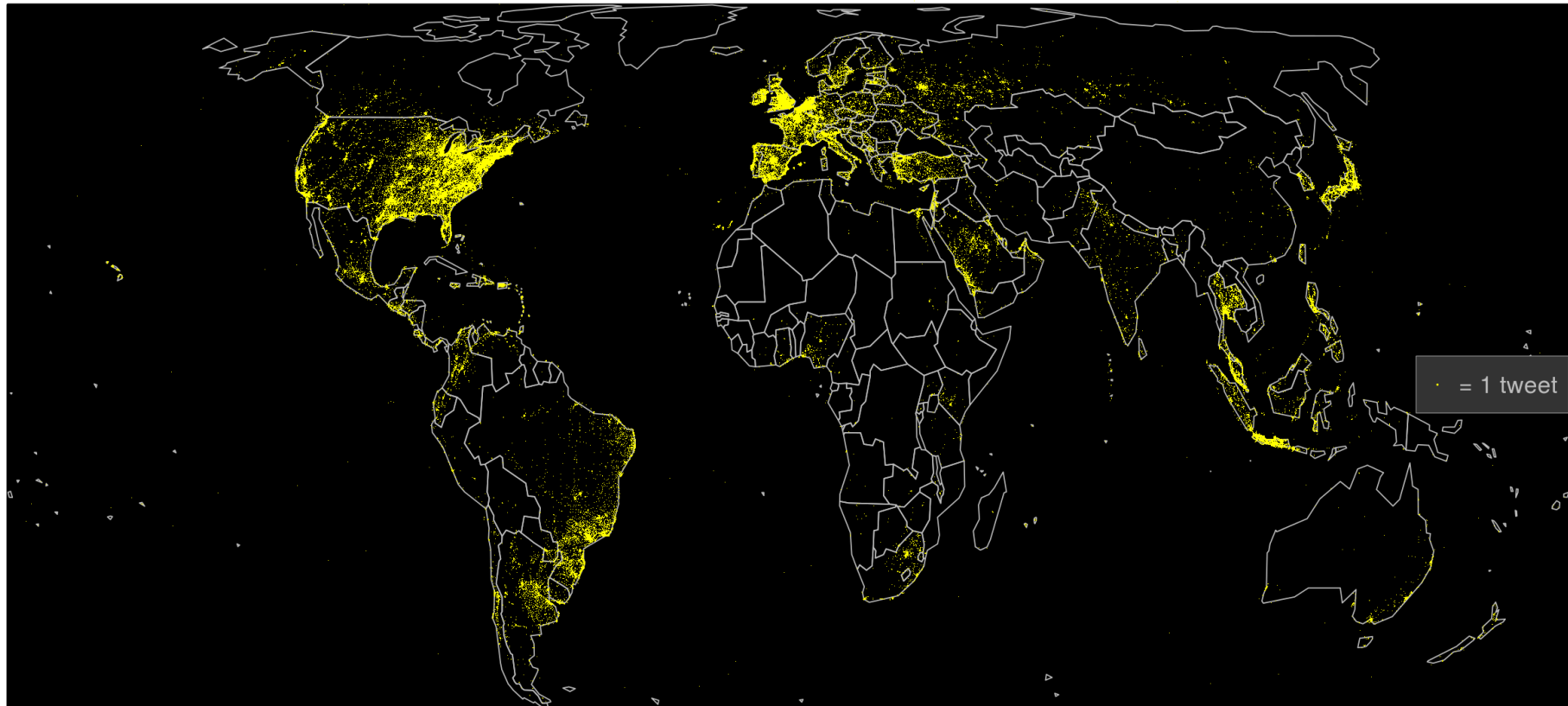
Figure 12. Time series of tweets mentioning the city from 2nd June to 29th June 2014

Issue 2: small amount of geotagged tweets



C. Gerlitz et B. Rieder, 2013

1) Tweets about the city: international recognition of the city



A week of geo-tagged tweets

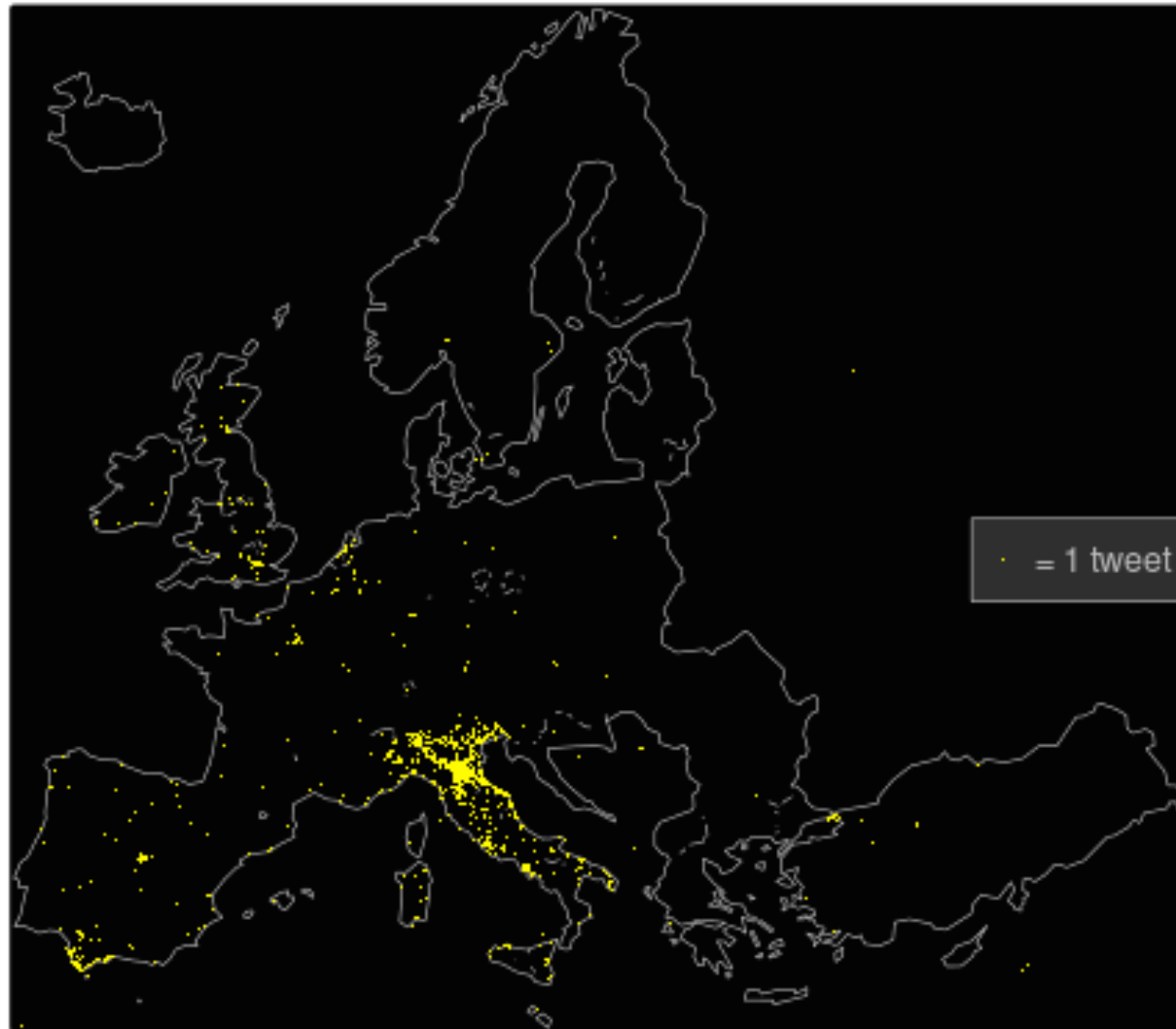
1) Tweets about the city: international recognition of the city

| City | Total tweets | Geo-tagged tweets | Ration |
|-----------|--------------|-------------------|--------|
| Bologna | 233 899 | 12089 | 5.17 % |
| Brussels | 739 150 | 20183 | 2.73 % |
| Edinburgh | 1 064 735 | 21583 | 2.03 % |
| Marseille | 430 824 | 18344 | 4.26 % |

**Tweets and geo-tagged tweets mentioning the four cities
from the 21st May and the 6th July**

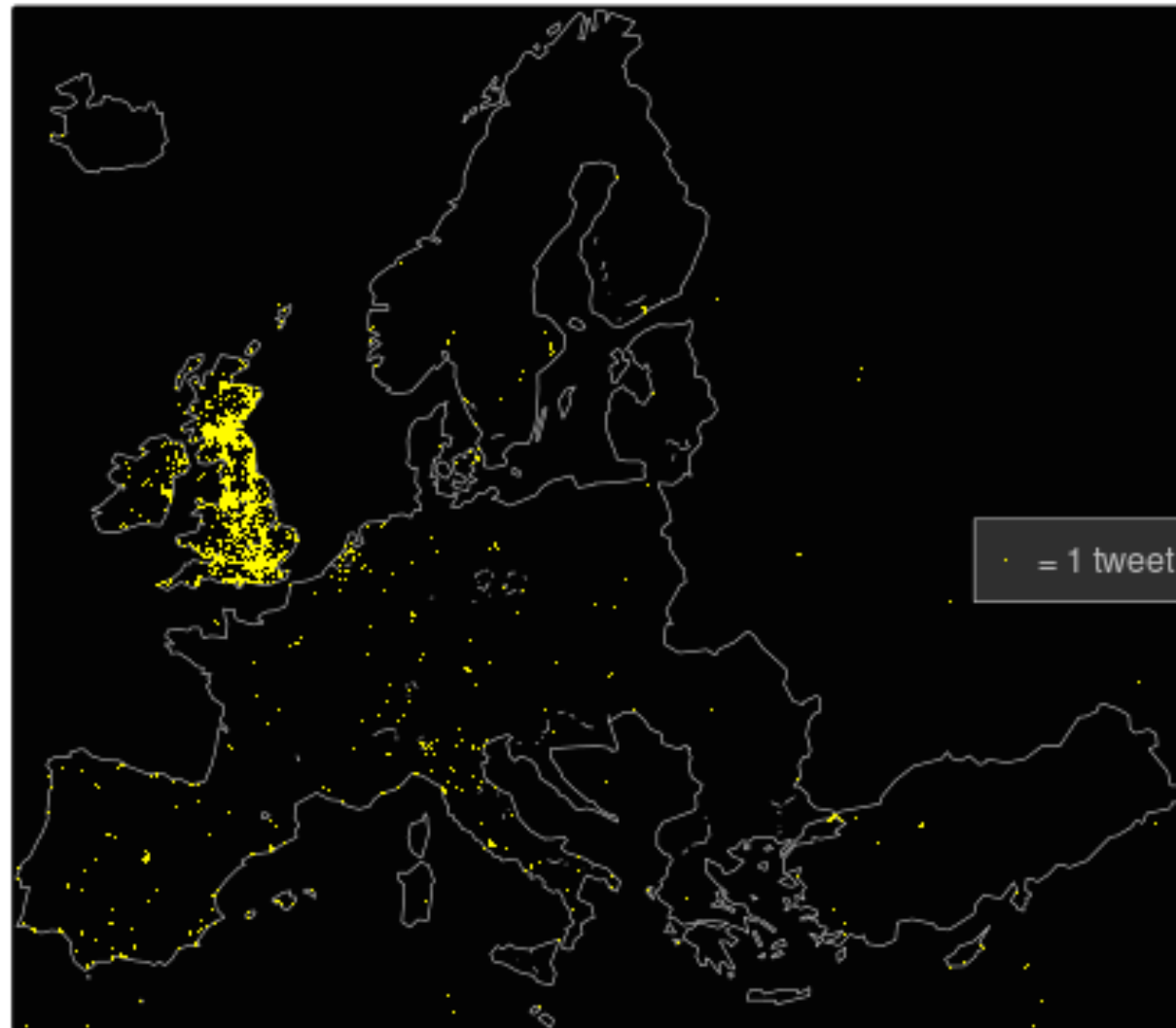
1) Tweets about the city: international recognition of the city

Tweets quoting Bologna



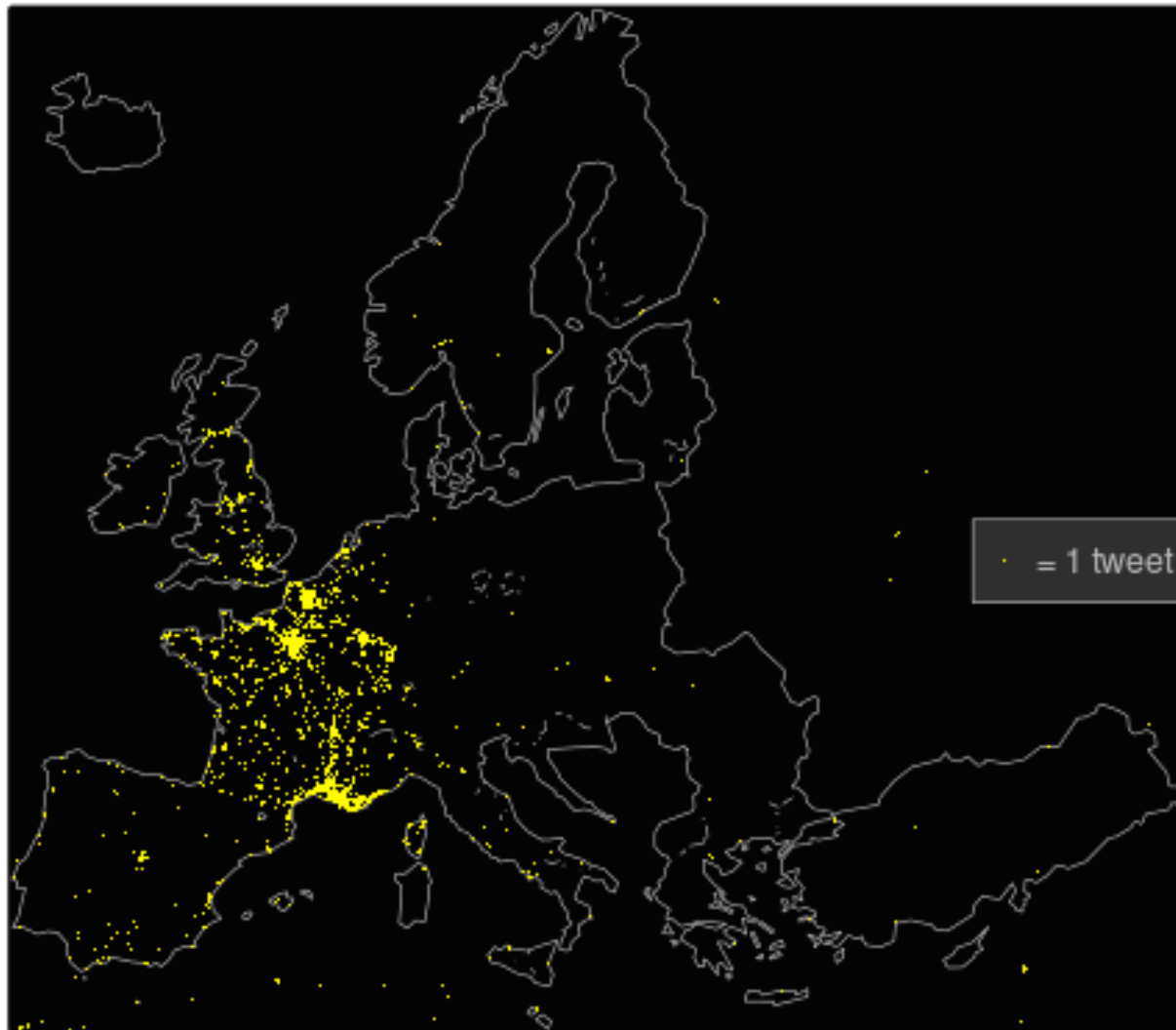
1) Tweets about the city: international recognition of the city

Tweets quoting Edinburgh



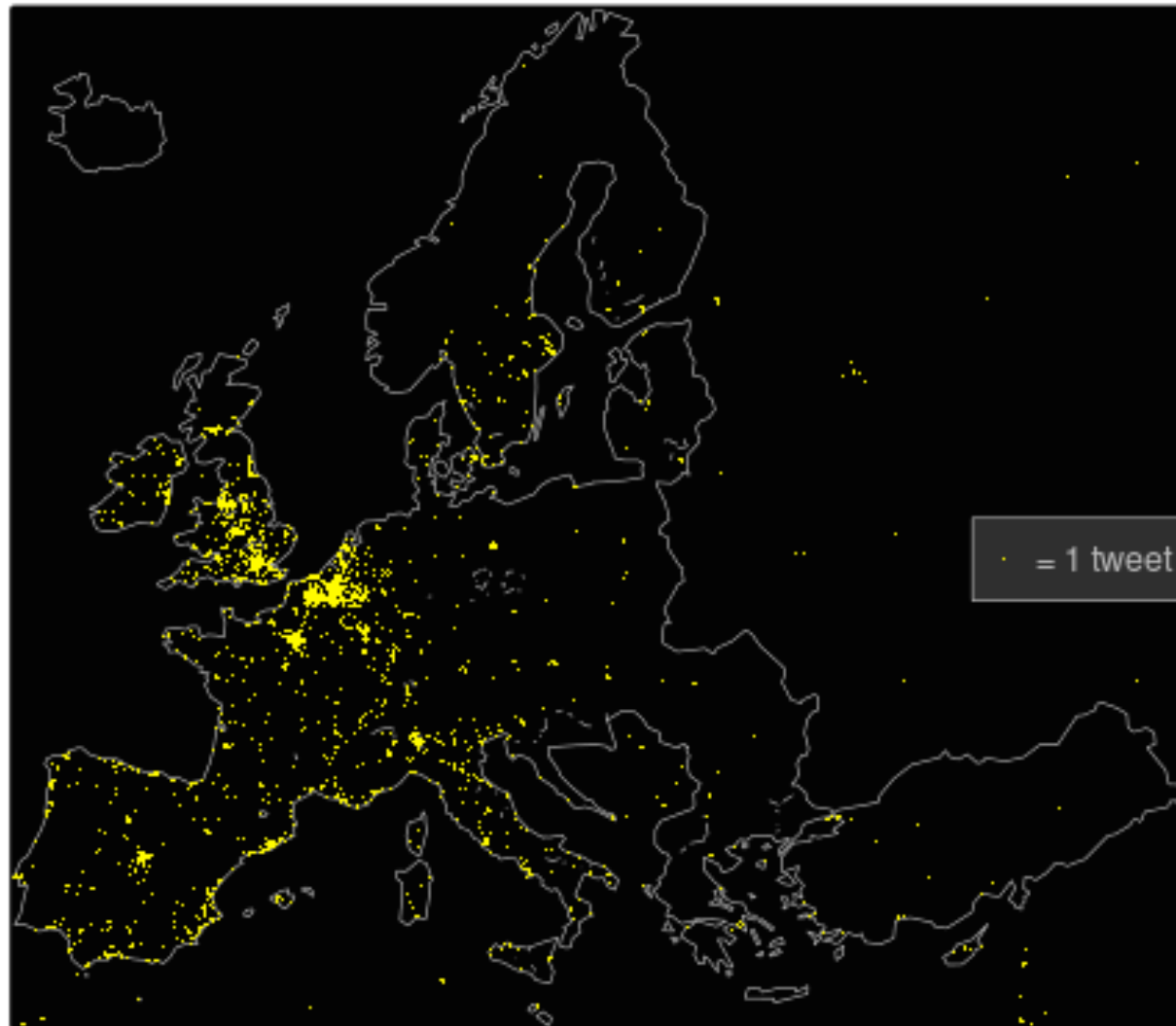
1) Tweets about the city: international recognition of the city

Tweets quoting Marseille



1) Tweets about the city: international recognition of the city

Tweets quoting Bruxelles



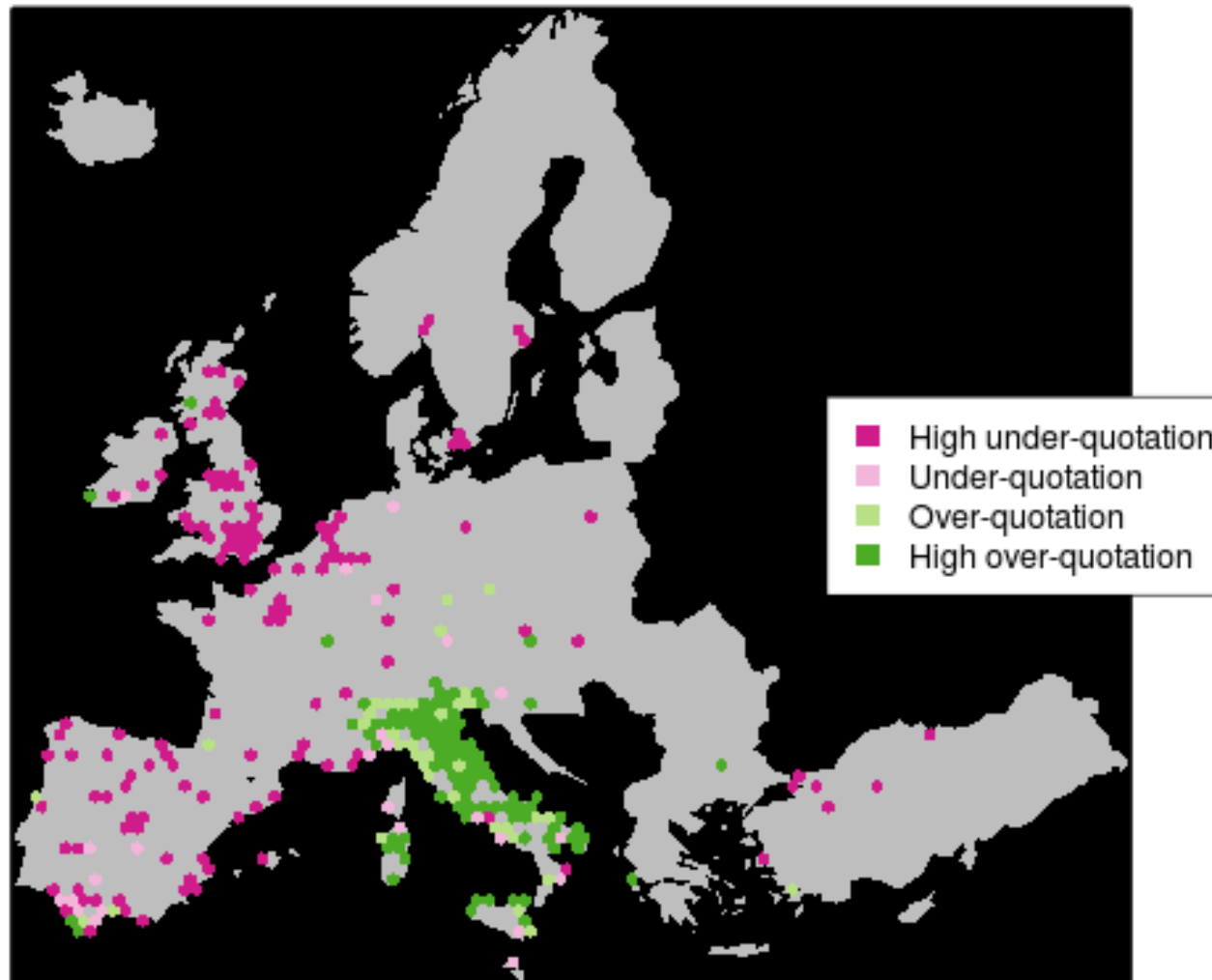
1) Tweets about the city: international recognition of the city

Level of internationalisation :

Geographical distribution of over-quotations of the four cities
at European level

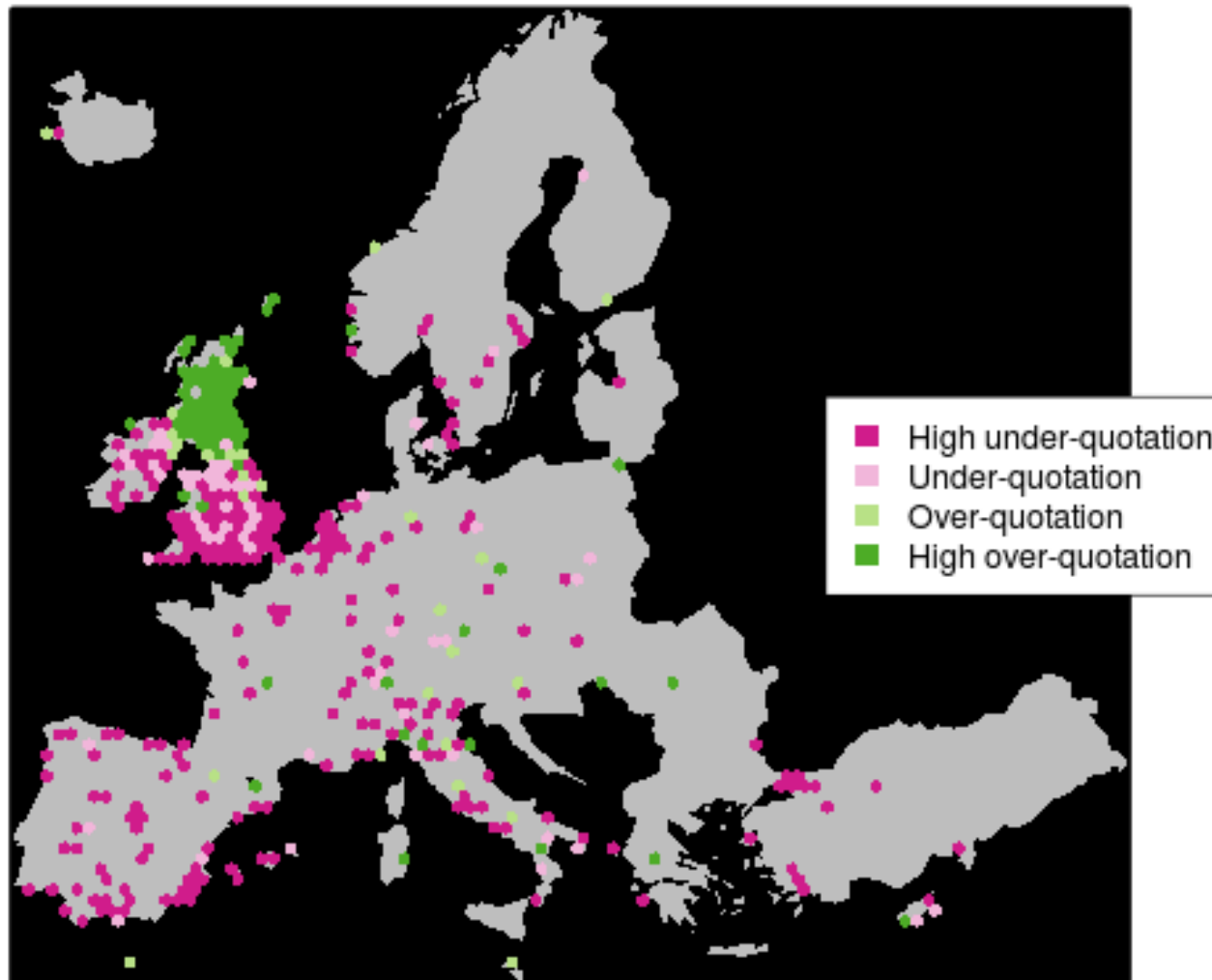
1) Tweets about the city: international recognition of the city

Over-quotations of Bologna



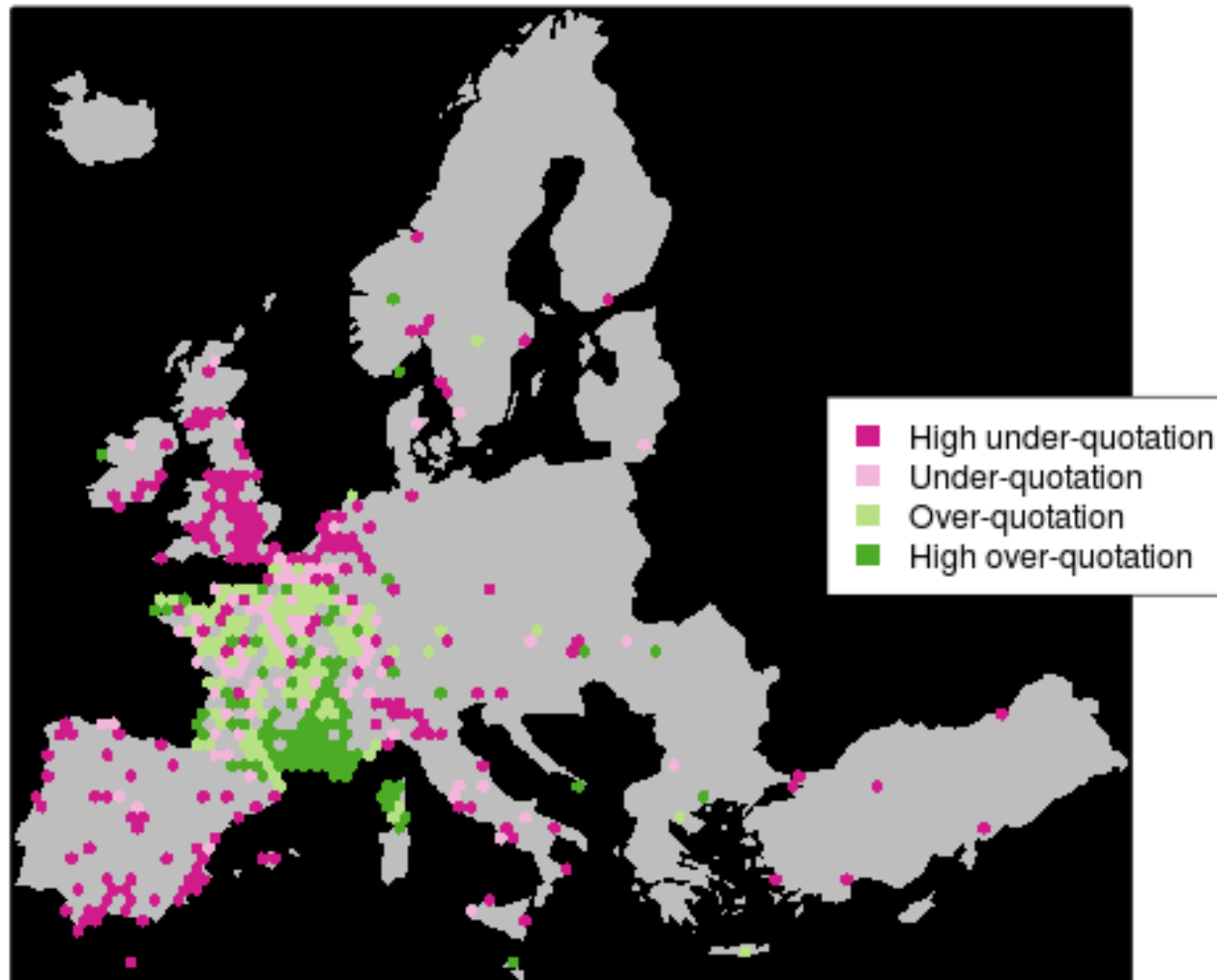
1) Tweets about the city: international recognition of the city

Over-quotations of Edinburgh



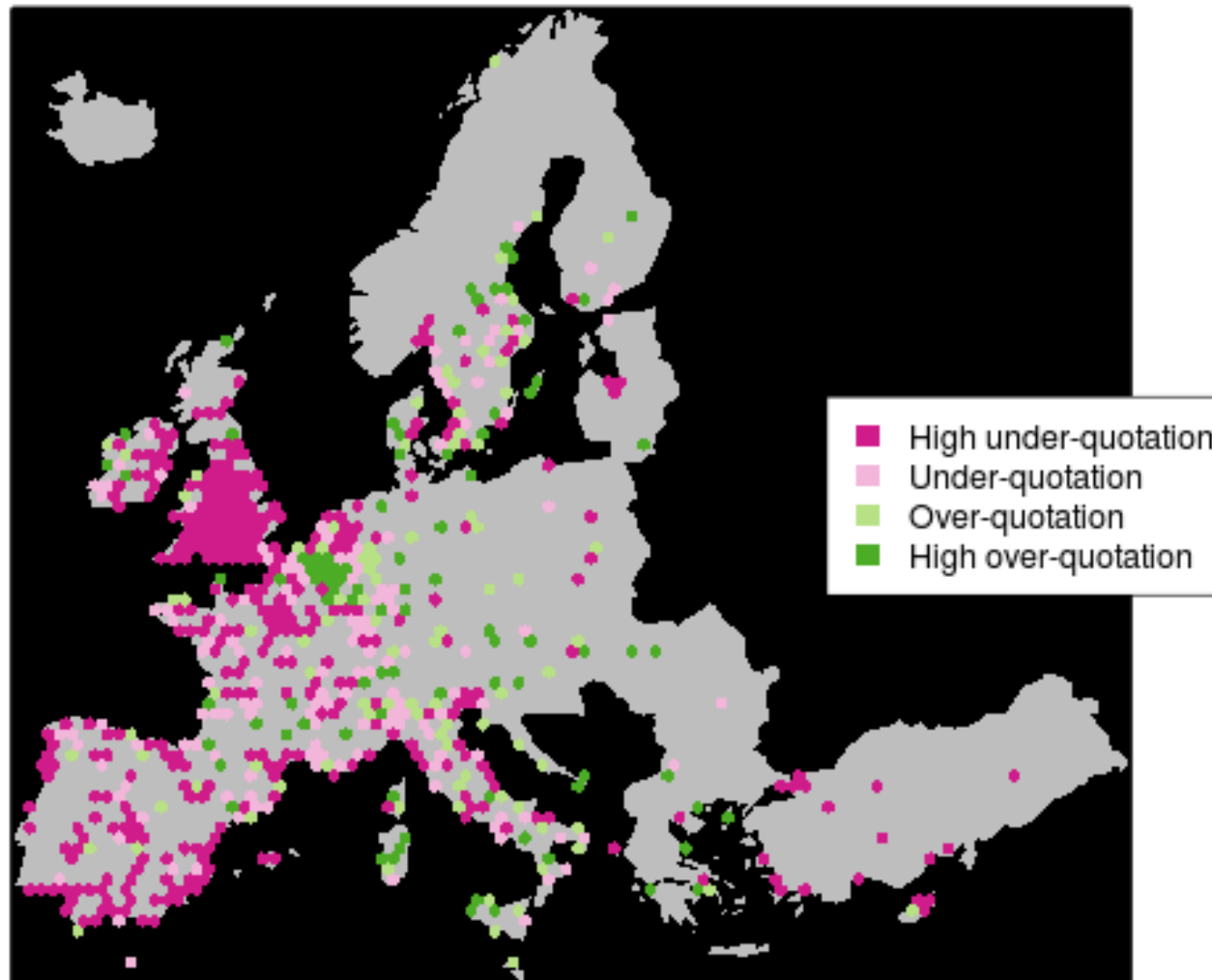
1) Tweets about the city: international recognition of the city

Over-quotations of Marseille

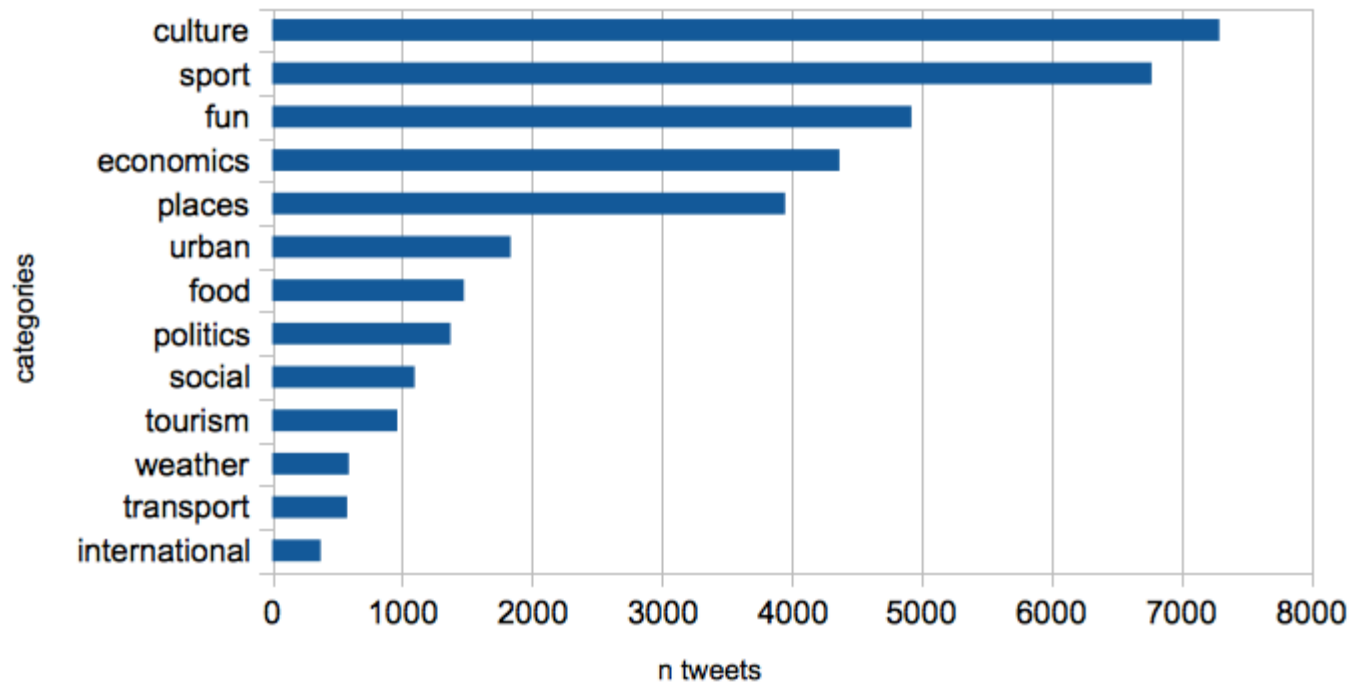


1) Tweets about the city: international recognition of the city

Over-quotations of Brussels



1) Tweets about the city: the city brand

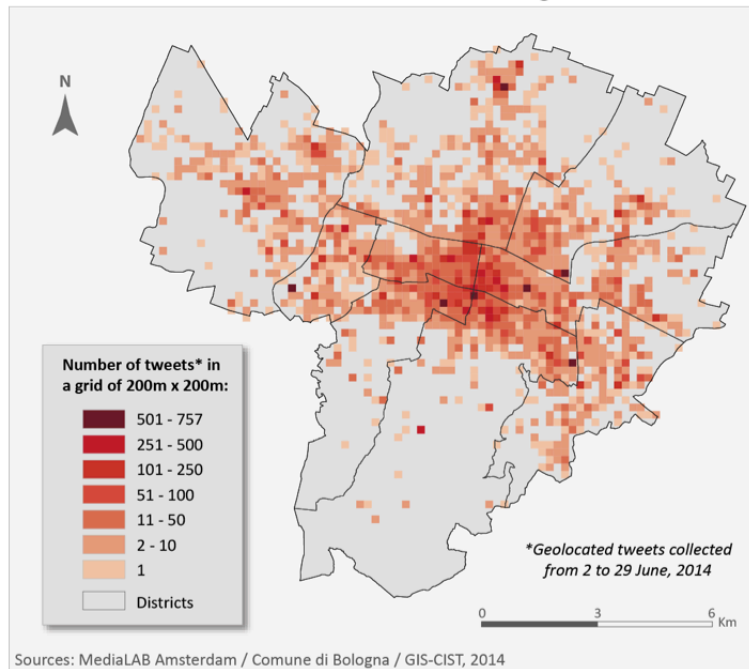


Distribution of hashtag in tweets mentioning Bologna between the 2nd and the 29th June 2014

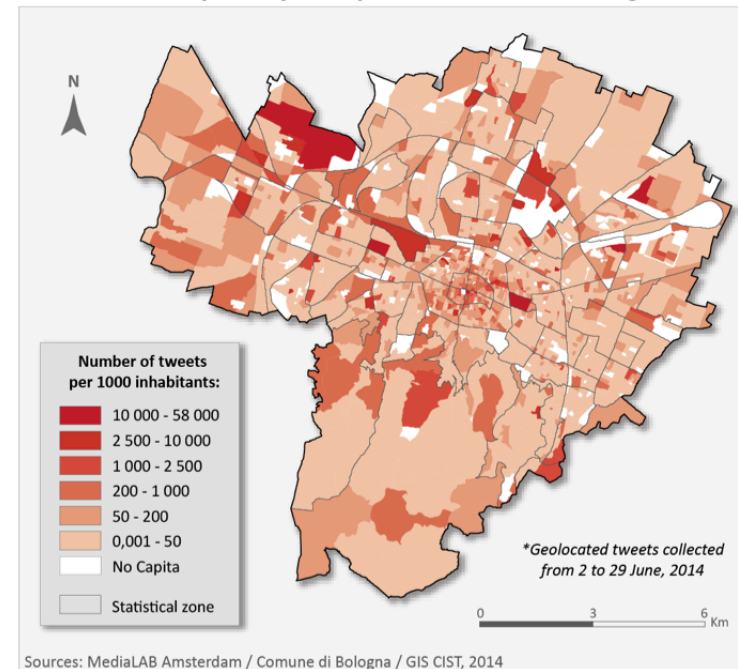
2) Tweets inside the city: local follow up

Geographical distribution of tweets inside the city and of tweets per capita

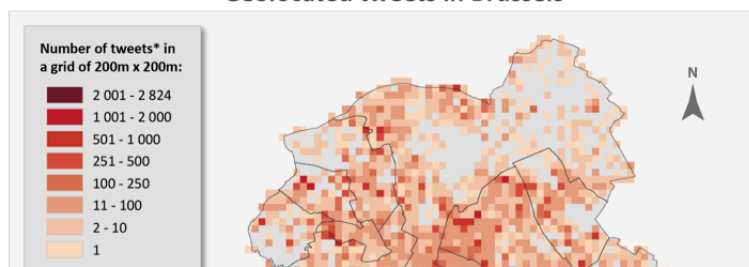
Geolocated tweets in Bologna



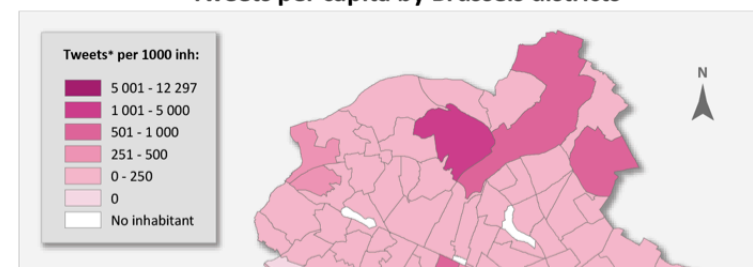
Tweets per capita by census area in Bologna



Geolocated tweets in Brussels



Tweets per capita by Brussels districts



3) Influencers of the city: real-time follow up

The image shows three Twitter profiles side-by-side. The first is for 'Urban Center Bologna' (@UrbanCenterBologna), featuring a profile picture of an orange square with a white cross and a bio in Italian. The second is for 'Virginio Merola' (@virginio_merola), a man with glasses, with a bio identifying him as the Mayor of Bologna. The third is for 'Danilo Masotti' (@dmasotti), with a profile picture of a man and a bio mentioning he is a blogger and author. Each profile shows tweet activity and follower counts.

The image shows three Twitter profiles side-by-side. The first is for 'Mission Possible' (@marseille_np), with a profile picture of a blue square with white text and a bio in French. The second is for 'Jean-Claude GAUDIN' (@jcgaudin), featuring a profile picture of an older man and a bio identifying him as the Mayor of Marseille. The third is for 'Mathieu Grapeloup' (@MatGrapeloup), with a profile picture of a man and a bio identifying him as an NGO leader. Each profile shows tweet activity and follower counts.



3) Influencers of the city: real-time follow up

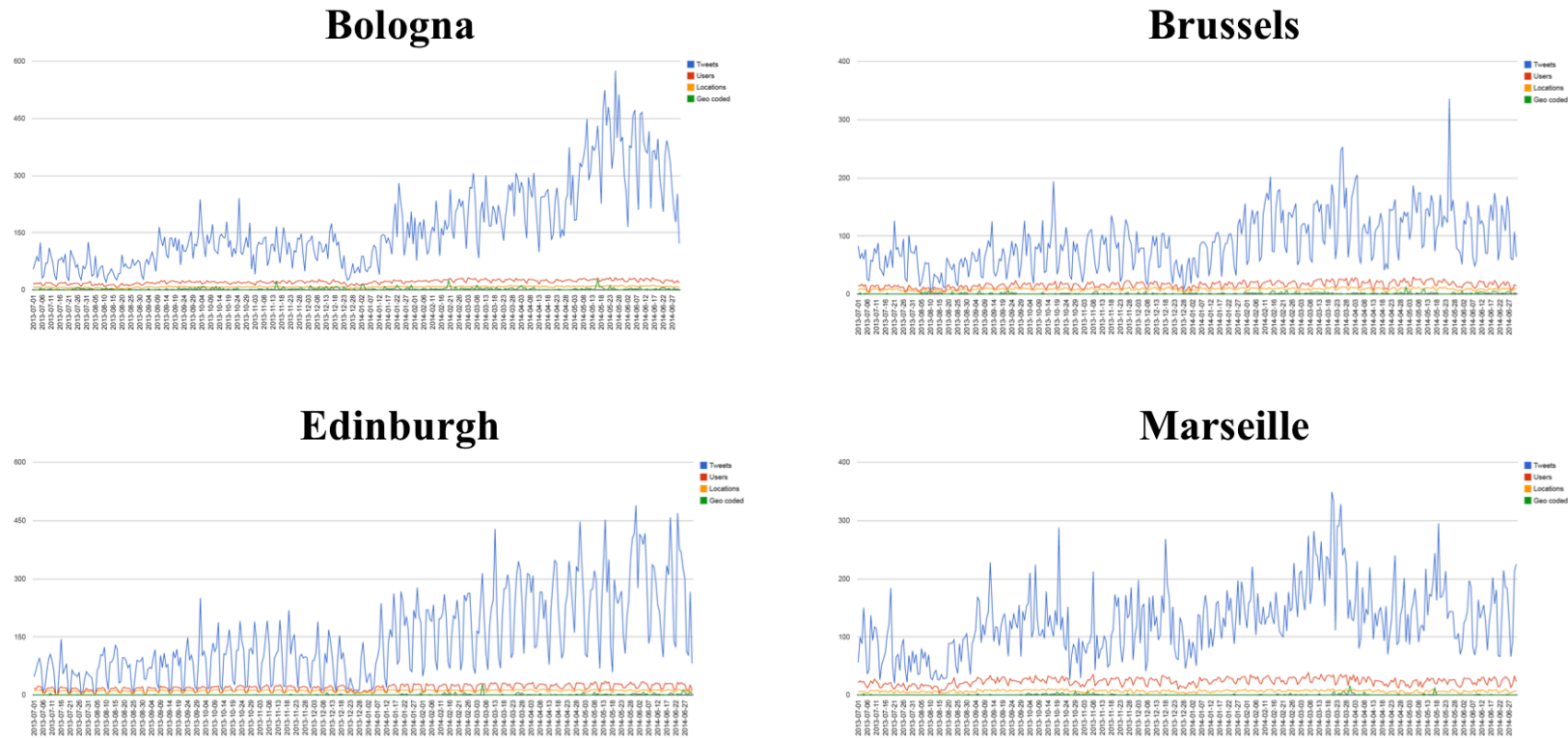
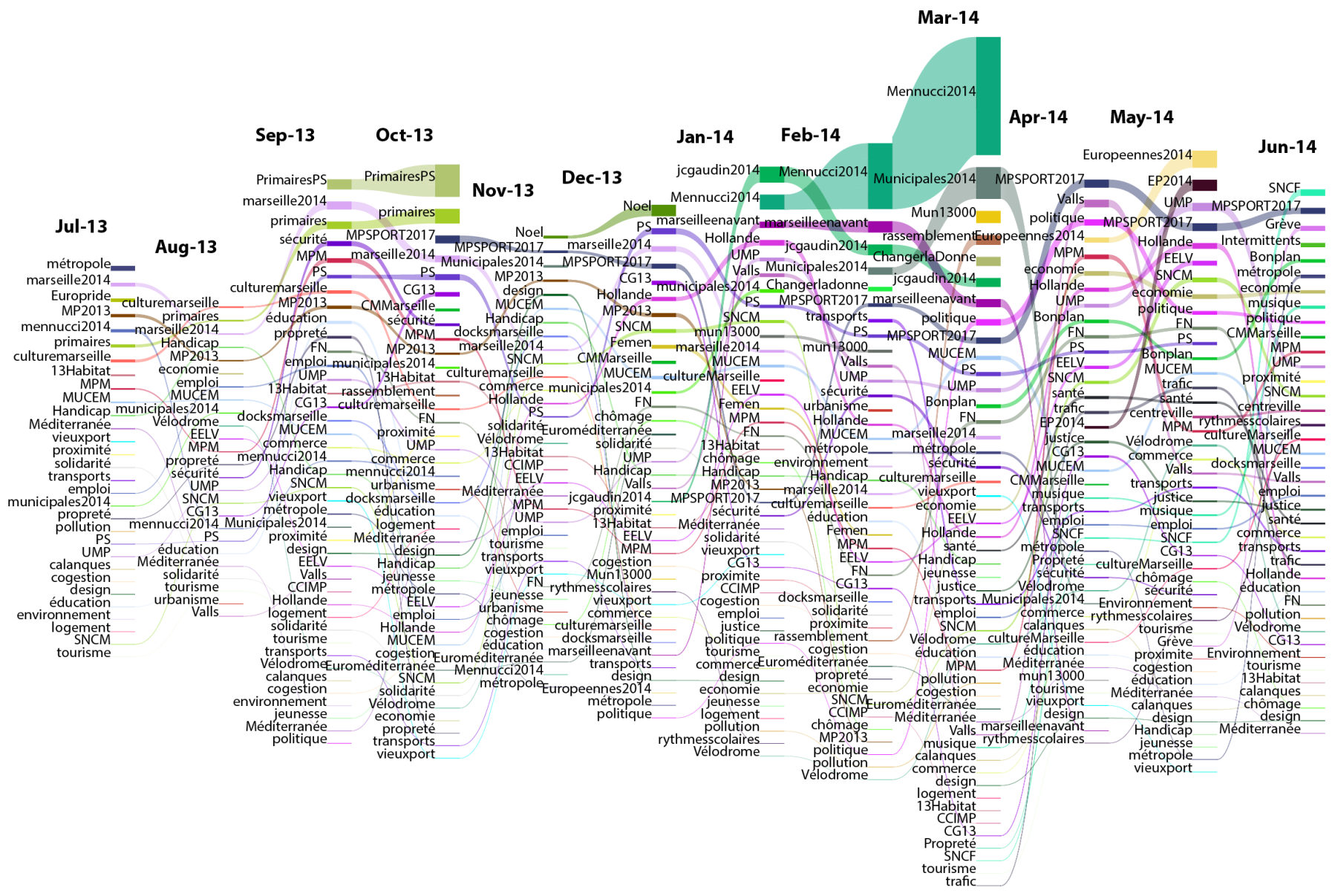


Figure 32. Time series of tweets sent by influencers in the four cities between the 1st July 2013 and the 30th June 2014



3. From the research to the field



Research protocol

- 9 semi-directif elite interviews
- Questionnaire:
 - Actual use of soft data
 - Perception of soft data

Results

1. Penetration trends of Internet data in public policies
2. Need and supply of the use of Internet data
3. Perception of the Internet data by institutions
4. Perspectives for the use of Internet data in the decision-making process

Thank you for your attention !

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