

Project Template for Mobile Phone Data

- Overview
- Partnerships / Data Providers
- Outcome
- Lessons learned
- Privacy / Confidentiality
- Future directions
- Analysis tools
- Data sources details

Daytime population and tourism (based on mobile phone location data)

- **Overview** - The aim of the project is to produce statistics on the spatial distribution of the Dutch population during the day, as opposed to the spatial distribution as registered by the municipality of residence. This will be based on mobile phone location data.
- **Partnerships / data provider** - A major mobile phone provider.
- **Details of the financial arrangements** - The partner had to make considerable investments to be able to deliver what was requested. A symbolic payment for its efforts as a sign of real commitment from the side of the NSI.
- **The data provider is a multinational enterprise.** Other NSIs may be interested in using the same source.

- **Outcome** - Produce and publish (in 2014) a table with basic data on the daytime distribution of the Dutch population by municipality, together with a graphical representation (map of the Netherlands).
- **Most important lesson learned** - The main challenges concerned the statistical methodology, data acquisition, and privacy. In the Netherlands there are three main mobile phone providers, with roughly comparable customer populations. We collaborate with one of these providers. It took a big effort to specify and reach agreement on the contents of the data to be provided and the conditions involved. This required an investment from both sides in the relationship between the provider and the NSI, with a long term orientation, since this type of collaboration was new to both sides. Because of public image concerns, for the NSI as well as the data provider, the issue of privacy was dealt with in an extremely cautious way.

- **Privacy and confidentiality issues** - We receive only aggregates that are big enough to exclude the possibility of derivation of personal characteristics, now or in the future.
- **Future directions** - The statistics produced will be extended in later years, depending on the extent to which external funding can be found for these statistics.
- **Analysis tools** - We use Teradata system, R, and SPSS.
- **Data source details**: Description, Scope, Granularity, update frequency and Public (or not)

Satellite and Ground Sensor Data for Agricultural Statistics

- **Overview** - The Australian Bureau of Statistics is currently investigating the potential of satellite and ground sensor data for the production of agricultural statistics, such as land use, crop type and crop yield. Satellite data is seen within the agency as a potential supplement for existing agricultural surveys as well as the agricultural census.
- **Partnerships / data provider** - Discussions ongoing see future directions.
- **Outcome** – not available
- **Most important lessons learned** - Ensure scope of initial work is well articulated, refined and achievable in order to ensure ‘quick wins’ are realised, demonstrating value in the project to stakeholders

- Privacy and confidentiality issues - Privacy and confidentiality issues
- Future directions – Methods development, Acquisition of data sources, Establish key industry partners
- Analysis tools - Initial planning suggests that any file(s) received by the ABS will be stored on traditional relational databases. The storage infrastructure will be internal to ensure utmost security and ensure the possibility of a confidentiality breach is minimal.

- ✓ **Data source description:** The data includes satellite reflectance measurements that can be used in conjunction with ABS agricultural census data to training machine learning algorithms.
- ✓ **Geographical scope:** National
- ✓ **Granularity:** Days
- ✓ **Update frequency:** Nearly static (highly infrequent / no schedule)
- ✓ **Publicly available:** Yes - accessible to everyone, but requires significant work to reformat (e.g. PDF, screen scraping, etc.)

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