Advertising mapping: using OpenStreetMap for the protection of landscape

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Outline

- Which advertising devices?
- Why bother to do this? Is it useful? Is it necessary?
- How to map?
- Tools: preset JOSM, OSM Contributor, MapContrib.
- Status
  - Rendering: icones, openadvertmap, umap
  - Stats per type and per country
27/07/18 Advertising mapping into OSM
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Legislation on advertising in public space in France is the result of 100 years of discussion on:

- Heritage, remarkable natural sites, landscapes
- Freedom of expression
- Economy, handicraft, trade, industry
- Quality of the living environment
- Environment, ecology, preservation of resources

Complexity!

12/07/2010: law ENE (Engagement National pour l’Environnement)

30/01/2012: decree RNP (Réglement National de Publicité)
« No ad !
Trees instead !! »
Grenoble didn’t renew adv. contract in 2014, 326 adv devices banned from public space

Grenoble to replace street advertising with trees and 'community spaces'

A plan to curtail outdoor advertising was a campaign promise by Gren mayor Eric Piolle in recent municipal elections, as he claims it is “a European first for a large city”
Advertising devices into OSM : what for ?

Aims 1

- Store into OSM DB what can be seen on landscape
- Perform inventory (how many, density)
- Compare towns with same characteristics
- Follow changes in time

Aims 2

- Be able to verify legality of installation, automatic detection of infractions ?

Aims 3

- Be able to measure advertising pressure
  - On a city, along an itinerary, …
How to tag into OSM?

• **man_made=advertising** (first level tag, not mandatory)

• Tag **advertising** : external aspect (form factor)

• Then visibility, number of sides, lit, luminous, animated, support, overall size, height.

• Then legal aspect : operator, private/public property, type of message, display size, legal type according to local legislation

• Visibility (nuisance or impact)
External aspect of device

- **advertising=*/value/> is first level tag (if man_made=advertising is not). To give the external aspect of the device
  - advertising=billboard
  - advertising=poster_box
  - advertising=totem
  - advertising=column
  - advertising=board
  - advertising=tarp
  - advertising=sign
  - advertising=flag
  - advertising=sculpture
Visibility : device visibility

- visibility
  - visibility=house : device for pedestrians, visible up to 10 m
  - visibility=street : device for vehicles driving slowly, visible between 10 and 50 m
  - visibility=area : device visible from far, or for vehicles driving fast, visible from more than 50 m
Number of sides

sides : the number of sides of the devices

- sides=1  wall devices, tarps, most of the boards in town, default value
- sides=2  totems, most of grounded devices
- sides=3  rarely
- sides=4  rarely
lighting

lit : yes/no

Proposal

• lit=projection  spots or neon ramps
• lit=transmission  poster_box lit from inside
• lit=neon
• lit=numeric  all types of digital display
• lit=screen  all types of screen
Animation type

**animated**:  
- **animated=yes/no**  
- **animated=trivision_blades**: small triangles rotating  
- **animated=winding_posters**: several posters, often 3, winding one after the other  
- **animated=rotating**: advertising columns rotating on itself  
- **animated=screen**: a screen is an animation type  
- **animated=digital_prices**: for petrol stations for example  
- **animated=digital_messages**: for electronic display  
- **animated=wind**: some easels on ground are rotating with wind
Support

**support** to qualify what supports the device

- support=wall
- support=poles/pole/ground  devices grounded (either poles, or a large unique pole 'trunk' ["advertising tree"]) or directly put on the ground, in France poles for telecom/electricity/light/traffic sign are not allowed to support advertising
- support=mast  device supported by a mast
- support=fence  In France blind fence only can support advertising
- support=post  In France many advertising boards are supported by a post
- support=easel  not mandatory if advertising=easel
- support=scaffold  mostly for advertising=tarp
- support=ceiling ou roof  supported on roof
- support=street_furniture; street_furniture:transit_shelter ; street_furniture:newspaper_kiosk ;street_furniture:flower_kiosk ; street_furniture:information ; street_furniture:map ; street_furniture:bench ; street_furniture:trash ; street_furniture:recycling ; street_furniture:clock ; street_furniture:toilets  all kinds of urban furnitures being able to support advertising. In France only 5 of them are allowed : transit_shelter, newspaper_kiosk, information, …
Overall size

**size**: external size of the device (without the support), it is not the display size, but the size of display size AND the frame

Difficult to measure precisely, but they are standard formats

**width x height in meter**

- size=1.5x1
- size=1.3x2.15 (1.2x1.7 => 2m²)
- size=3.5x2.7 (3.2x2.5 => 8m²)
- size=4.2x3.2 (4x3 => 12 m²)

**size** better than **width + height**, because there is as well **display_surface**, and **height** for the overall height of device
Height

**height**: the height of the highest point of device from the lowest point, average height has no meaning here, this is not the height of the display surface

In meter:

- height=2.4 often for poster_box
- height=6 often for grounded billboard (max height in France)
- height=7.5 often for wall billboard (max height in France)
Operator

**operator** to qualify the one performing display, advertising company, or town, or shop, of brand 

- operator=JCDecaux
- operator=Ville de Grenoble
- operator=SMTC (Syndicat Mixte des Transports en Commun)
**Reference**

**reference** identifier of advertising device, supposed to be unique by an advertising company, supposed to be visible in France on all devices ("buteau")

- ref=
Land

- **land_property** to tell if the advertising device is on private land or public land
  - land_property=public
  - land_property=private
Type of message

**message**: type of advertising message. Only if permanent characteristics.

- **message=commercial**  
  vast majority, default value

- **message=opinions/non_profit**  
  In France we have mandatory boards for free speech and non profit organization in all towns in France, reserved space for freedom of expression.

- **message=information**  
  municipalities

- **message=showbiz**  
  In France adv columns in town can only display advertising for showbiz (theater, music, movie, concerts, ...)

- **message=map**  
  for geographic information

- **message=political**  
  for electoral boards, with "permanent=no" as only during election campaigns in France

- **message=safety**  
  for safety warnings, flood,

- **message=legal**  
  for legal information

- **Etc. Other values are possible**
  - When there are two sides it is possible to have **message:front=commercial** and **message:reverse=information** for example for urban furniture ad hoc
Legal device type in France

- **legal_type:**FR to qualify the legal type of device in France
  - legal_type:FR=publicité
  - legal_type:FR=publicité:mobilier urbain:panneau
  - legal_type:FR=publicité:mobilier urbain:colonne
  - legal_type:FR=publicité:mobilier urbain:mât porte-affiches
  - legal_type:FR=publicité:mobilier urbain:abri transport
  - legal_type:FR=publicité:mobilier urbain:kiosque
  - legal_type:FR=enseigne
  - legal_type:FR=enseigne:temporaire
  - legal_type:FR=préenseigne
  - legal_type:FR=opinions/associations
  - legal_type:FR=JEI
Supposed status of device against law in France

- **legal_status:**FR to qualify legal status of device, as far as french legislation is concerned.
  - **legal_status:**FR=ok : device seems to respect french legislations.
  - **legal_status:**FR=to verify:comments : supposition is made that device does not respect legislation, to be verify by an expert, comments.
  - **legal_status:**FR=ko:comments : device does not respect legislation, add comments to explain.
To know if this device is usable by anybody or it is private and reserved

- **access** to tell if it is possible to stick one’s own posters, enable to differentiate commercial boards from boards offered to free opinions and non profit organisations
  - access=open or yes
  - access=private or no
Size of display

display_surface This is not the overall size of the device, but the size offered to the display.

Difficult to measure precisely

surface in meter²

- display_surface=1.5: for 1.5 m² => “préenseignes” in France
- display_surface=2: for 2 m² => poster_box
- display_surface=8: for 8 m² => a lot of grounded billboards in France
- display_surface=12: for 12 m² => a lot of grounded billboards in France
Visibility: to measure impact of device of advertising pressure of the device

- orientation tells how the device is set as compared with the flow of people or vehicles
  - orientation=front
  - orientation=medium
  - orientation=parallel
  - orientation=reverse
  - orientation=multi
Visibility: to measure impact of device of advertising pressure of the device

Proposal

- **side** to tell on which side of the road is located the device as compared of the side when the people or vehicles pass
  
  - side=same
  - side=opposite
  - side=middle
Advertising device can be installed on an existing object and to not mix advertising attributes and object attributes, “advertising:” scope can be added.
Tools

- **JOSM advertising presets**: for main cases, to facilitate collection of information into JOSM
- **JOSM advertising style**: to have a rendering into JOSM while we are editing advertising devices
- **OSM contributor**: Androïd application with 3 profiles dedicated to 3 types of devices (being built)
- **Map Contrib**: one theme to help advertising mapping contribution (being built)
JOSM advertising presets
JOSM advertising preset 1 out of 10

Editing a 'grounded billboard' advertising device

Support of advertising billboard:
Size of billboard (width * height):
Height of highest part of billboard:
Number of sides:
  Lit?
  Luminous?
If animated device, type of animation:

Advertising message type:
Display surface (in m^2):
Operator:
Unique identifier:
  Installed on public property
  Display usable by all?

Orientation of advertising device with respect to the flow of people:
Visibility:

More information about this feature
JOSM style

27/07/18 Advertising mapping into OSM
Androïd App : OSM contributor profiles (being built)

- Political boards
- Indication boards
- Billboards
Stats per country: France
Stats per country : Italia
Stats per country: Germany
Stats on ‘advertising=*’ July 24th 2018

- France
- Germany
- United Kingdom
- Nederland
- Belgium
- Schweiz
- Italia
- Spain
- Portugal
- Polka
- Österreich
- Cesko
- Slovenia
- Slovensko
- Romania
- Turkey
- Israel
- USA
- Canada
- Mexico
- Brazil
- Argentina
- Australia
- Africa
- Russia
- India
- China
- Japan

(advertising)
Stats on ‘advertising=billboard’ July 24th 2018
Stats on ‘advertising=column’ July 24th 2018

France
Germany
United Kingdom
Nederland
Belgium
Schweiz
Italia
Spain
Portugal
Polska
Ostereich
Cesko
Slovenia
Slovensko
Romania
Turkey
Israel
USA
Canada
Mexico
Brazil
Argentina
Australia
South Africa
Russia
India
China
Japan

0
1000
2000
3000
4000
5000
6000
7000
Stats on ‘advertising=poster_box’ July 24th 2018

0 500 1000 1500 2000 2500 3000

poster_box

France Germany Nederland Belgium Schweiz Ita grand Spain Portugal Polska Österreich Cesko Slowenien Romania Turkey Israel USA Canada Mexico Brazil Argentina Australia South Africa Russia India China Japan
Stats on ‘advertising=sign’ July 24th 2018
Stats on ‘advertising=totem’ July 24th 2018
Stats on ‘advertising=board’ July 24th 2018

France
Germany
United Kingdom
Nederland
Belgium
Schweiz
Italia
Spain
Portugal
Polska
Österreich
Česko
Slovenija
Slovensko
România
Turkey
Israel
USA
Canada
Mexico
Brazil
Argentina
Australia
South Africa
Russia
India
China
Japan

0
200
400
600
800
1000
1200
1400
1600
1800

board
OpenAdvertMap

- http://projets.pavie.info/openadvertmap/#15/45.1803/5.7326
Some umap

- Inventory of advertising devices in Boulazac
  http://umap.openstreetmap.fr/en/map/panneaux-scelles-au-sol-boulazac_147909#15/45.1819/0.7760

- Inventory of advertising devices in Grenoble
  http://umap.openstreetmap.fr/fr/map/dispositifs-publicitaires-grenoble_110558#14/45.1778/5.7200

- Inventory of grounded signs of JDLD in France
  https://umap.openstreetmap.fr/fr/map/inventaire-des-j_194621#6/46.619/6.218
Merci ! Thanks ! Grazie !

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Paysages de France