

#### 45™ ASECAP STUDY & INFORMATION DAYS 2017

Innovative services & tools & apps for road infrastructure : the Waze Connected Citizens Program example

Pullman Paris Montparnasse Hotel 29-31 May 2017

www.asecapdays.com













## Agenda

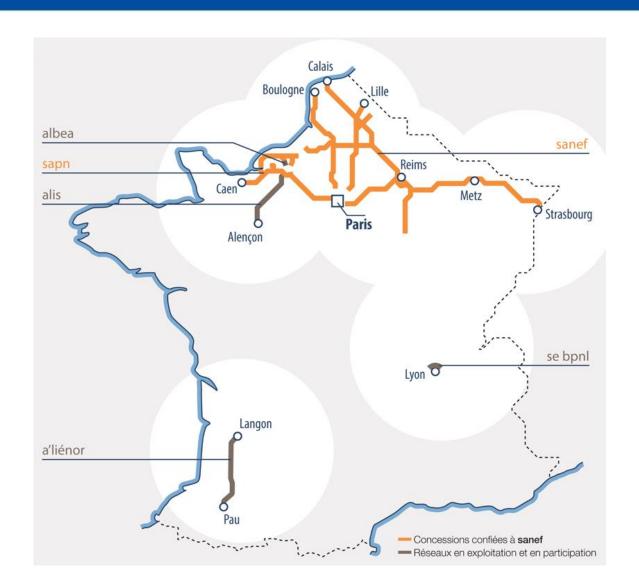


- The Waze Connected Citizens Program
- The data exchange partnership with Sanef
- Use of exchanged information
- Waze beacons



### Sanef in a nutshell







2063 km of motorways

**1,6** billion € turnover in 2016

2 700 employees

**16** millions of traveled km per year

Yearly Investments 198 million €



# The Waze App and the Connected Citizens Program









## A Win / Win Partnership



#### For Sanef



- Use Waze information as another 'sensor' to understand real-time traffic on its motorways
- Use Waze as another communication channel to inform its clients of current traffic situation
- Show Sanef innovation by being the first road authorities to make a partnership with Waze in France





#### For Waze

- Obtain high quality traffic information from sanef
- Communicate on these information in the Waze app or Waze web site
- Promote Waze through Sanef communication channels



# **Exchanging Information**From Waze to Sanef









ID	Alert type	Alert Subtype	
	ACCIDENT	ACCIDENT MINOR	
	7.00.02.77	ACCIDENT MAJOR	
		NO SUBTYPE	
	JAM	JAM MODERATE TRAFFIC	
		JAM HEAVY TRAFFIC	
		<ul> <li>JAM_STAND_STILL_TRAFFIC</li> </ul>	
		JAM_LIGHT_TRAFFIC	
		NO SUBTYPE	
	WEATHERHAZARD /	HAZARD_ON_ROAD	- I
	HAZARD	HAZARD_ON_SHOULDER	
		HAZARD_WEATHER	
		HAZARD_ON_ROAD_OBJECT	
		HAZARD_ON_ROAD_POT_HOLE	
		HAZARD_ON_ROAD_ROAD_KILL	12
		HAZARD_ON_SHOULDER_CAR_STOPPED	
		HAZARD_ON_SHOULDER_ANIMALS     HAZARD_ON_SHOULDER_MISSING_SIGN	
		HAZARD_ON_SHOULDER_MISSING_SIGN     HAZARD_WEATHER_FOG	
		HAZARD_WEATHER_FOG     HAZARD WEATHER HAIL	
		HAZARD_WEATHER_HAIL     HAZARD_WEATHER_HEAVY_RAIN	
		HAZARD WEATHER HEAVY SNOW	
		HAZARD WEATHER FLOOD	
		HAZARD WEATHER MONSOON	
		HAZARD WEATHER TORNADO	
		HAZARD WEATHER HEAT WAVE	
		HAZARD WEATHER HURRICANE	
		HAZARD WEATHER FREEZING RAIN	
		<ul> <li>HAZARD_ON_ROAD_LANE_CLOSED</li> </ul>	
		HAZARD_ON_ROAD_OIL	
		HAZARD_ON_ROAD_ICE	
		<ul> <li>HAZARD_ON_ROAD_CONSTRUCTION</li> </ul>	- 1
		HAZARD_ON_ROAD_CAR_STOPPED	
		NO_SUBTYPE	
	MISC	NO_SUBTYPE	
	CONSTRUCTION	NO SUBTYPE	
	ROAD_CLOSED	ROAD_CLOSED_HAZARD	
		<ul> <li>ROAD_CLOSED_CONSTRUCTION</li> </ul>	
		ROAD_CLOSED_EVENT	
		NO_SUBTYPE	



# **Exchanging Information**From Sanef to Waze









#### Traffic Events Real Time Feed in Datex2 Format

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<d2LogicalModel xmlns="http://datex2.eu/schema/2/2_0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance</p>
 DATEXIISchema_2_2_3.xsd">

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     <country>fr</country>
     <nationalIdentifier>SANEF</nationalIdentifier>
   </supplierIdentification>

    - <subscription>

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     <operatingMode>operatingMode2
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     <subscriptionState>active</subscriptionState>
     <updateMethod>allElementUpdate/updateMethod>
   - <target>
      <address />
      cprotocol />
     </target>
   </subscription>
 <payloadPublication xsi:type="SituationPublication" lang="fr">
   <publicationTime>2016-10-18T12:30:02+02:00</publicationTime>
   <publicationCreator>
     <country>fr</country>
     <nationalIdentifier>SANEF</nationalIdentifier>
   </publicationCreator>
 + <situation id="SANEF_161018_990524" version="1">
```

Real Time Closures via Waze Map Editor

Major Traffic Events via the MTE tool

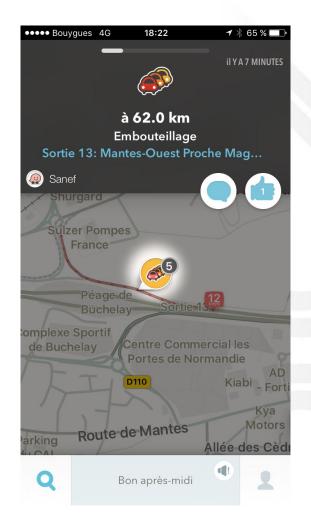


# **Communicating on Real Time Events**



Examples of accident or traffic jam sent by Sanef to Waze and displayed in the Waze App







## **Alerting the Traffic Control Center**











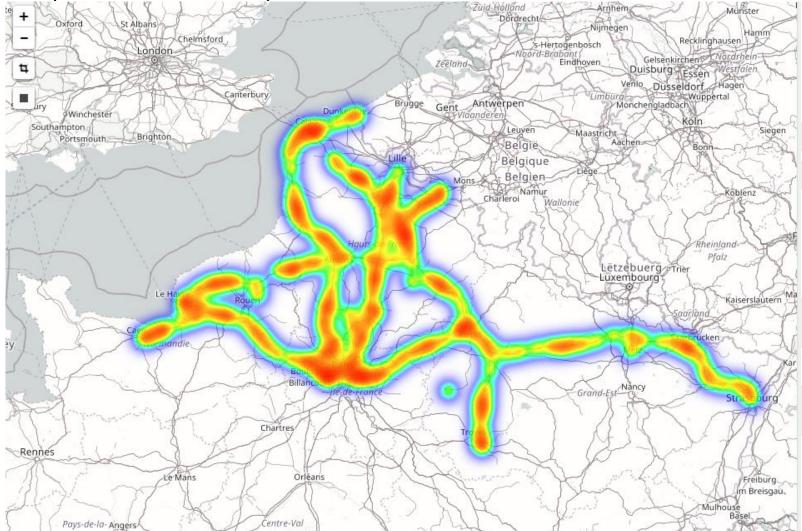
Real Time Waze Feed Data Processing: Selecting relevant reports Real time information to the Traffic Control Center



## **Statistics using the Wazer reports**



Example : Accident heatmap over 6 months





## Waze beacon: principles

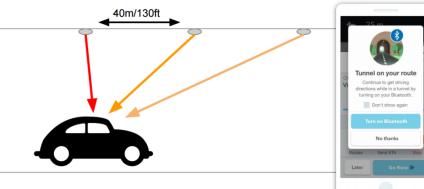


#### Waze beacon: which issues are we tackling and how

- Loosing GPS in tunnels
- Direction change in tunnels
- Event in tunnels



## Modus Operandi





### Waze beacon



#### Waze beacon to keep the information link and connection with customers in tunnel







Bluetooth Low energy Beacons

Easy installation on tunnel's wall

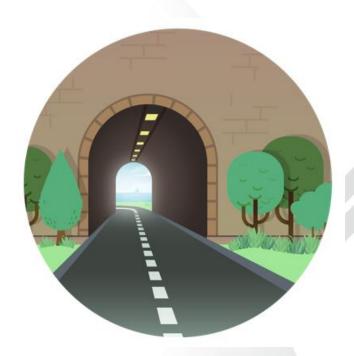
Instant use in the Waze app



## Waze beacon: benefits



- Improved Safety for drivers
- Better Traffic Flow
- Improved Visibility for In-Tunnel Issues
- Greatly Benefit your Constituents/Customers
- Open Solution, everyone can use the beacons







## Merci pour votre attention



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