Presentation of TIPI system regarding DATEX Exchange

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Context in France

Main features of Tipi

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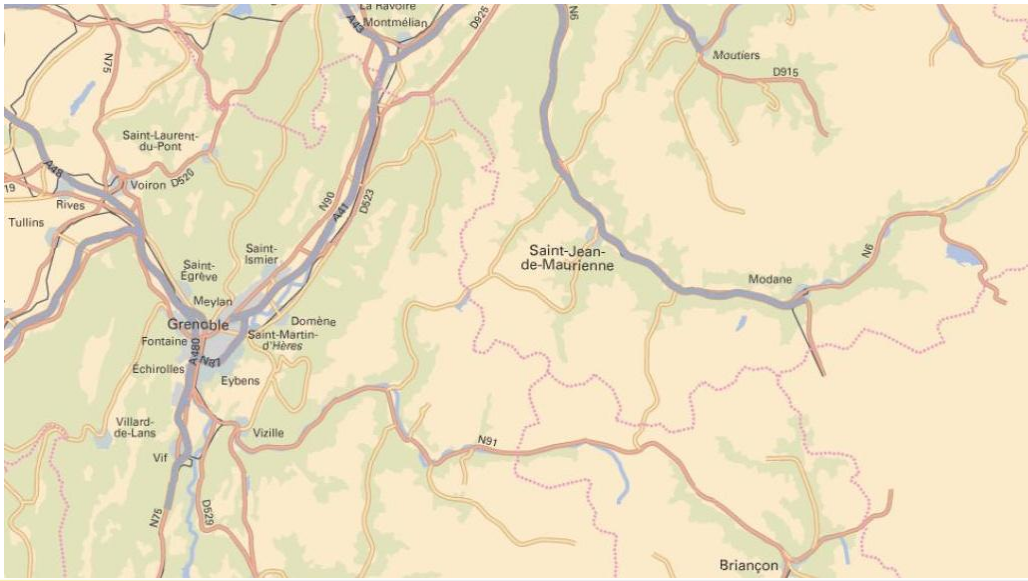
Context (1/2)

A lot of partners involved in DATEX exchange...

- Traffic Information Centres :
  - 1 national and 7 regional
- Road operators :
  - 11 Interdepartemental Directorates for the national road network
  - 9 Toll-motorways companies
  - 15 urban area traffic control centres
  - Roads managed by counties (departement)
- Other countries...
- Other traffic service providers...



Context (2/2)

An efficient road information service implies :

- To elaborate a global view all over the whole network
- To deliver an accurate, useful information
  - a same event is not regarded in the same way by every actors

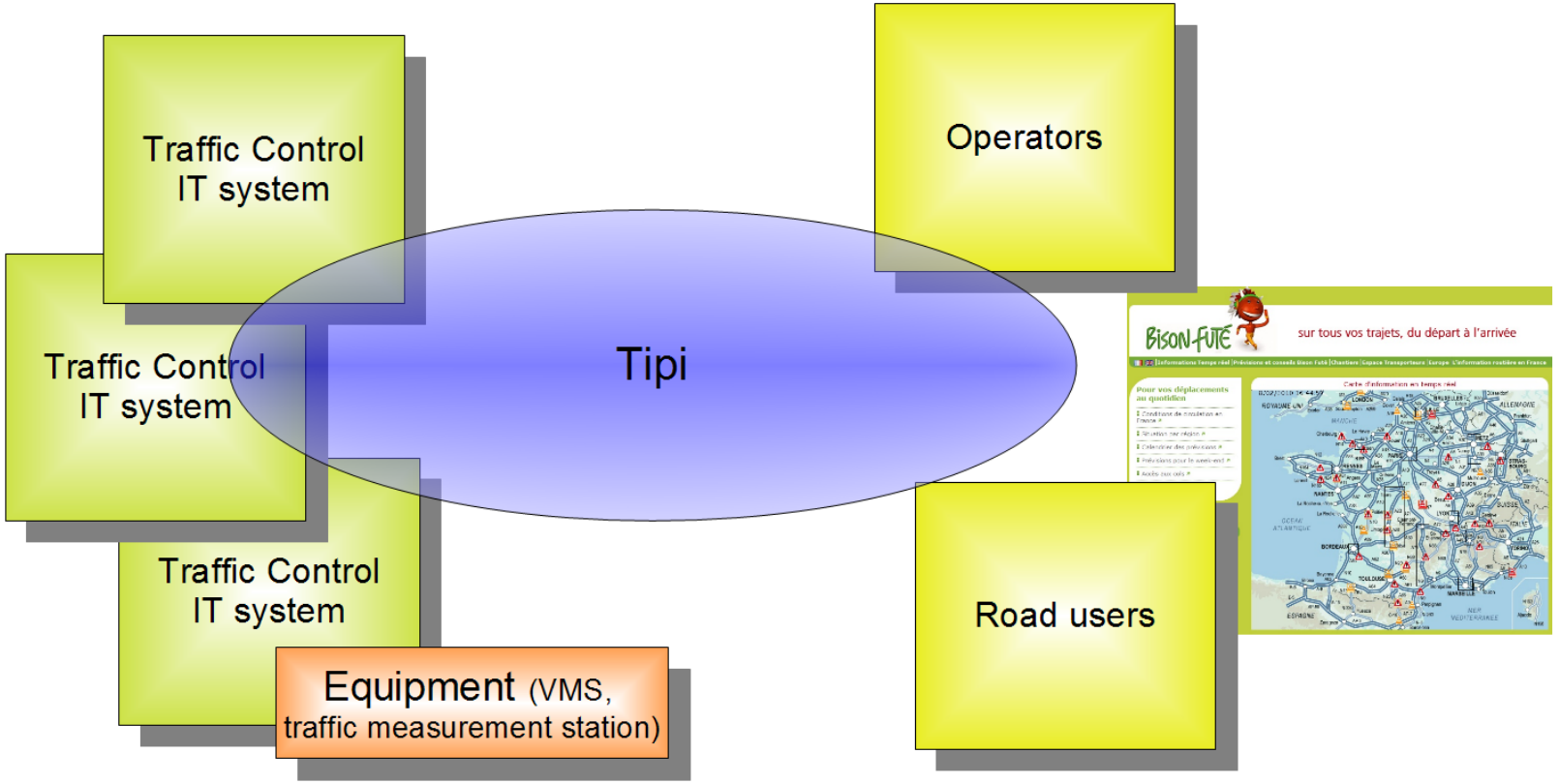
Hence the scope of Tipi :

- To collect information from all available sources
- To check information and if needed to correct it (and not only to forward it)
- To provide information to authorities, traffic operators, media and users according to their profile

Main features of Tipi (1/2)

A central position...

- Data Exchange is an important part of Tipi
- High reliability requirements
  - Real-time operating system, H24 and 7 days a week



Main features of Tipi (2/2)

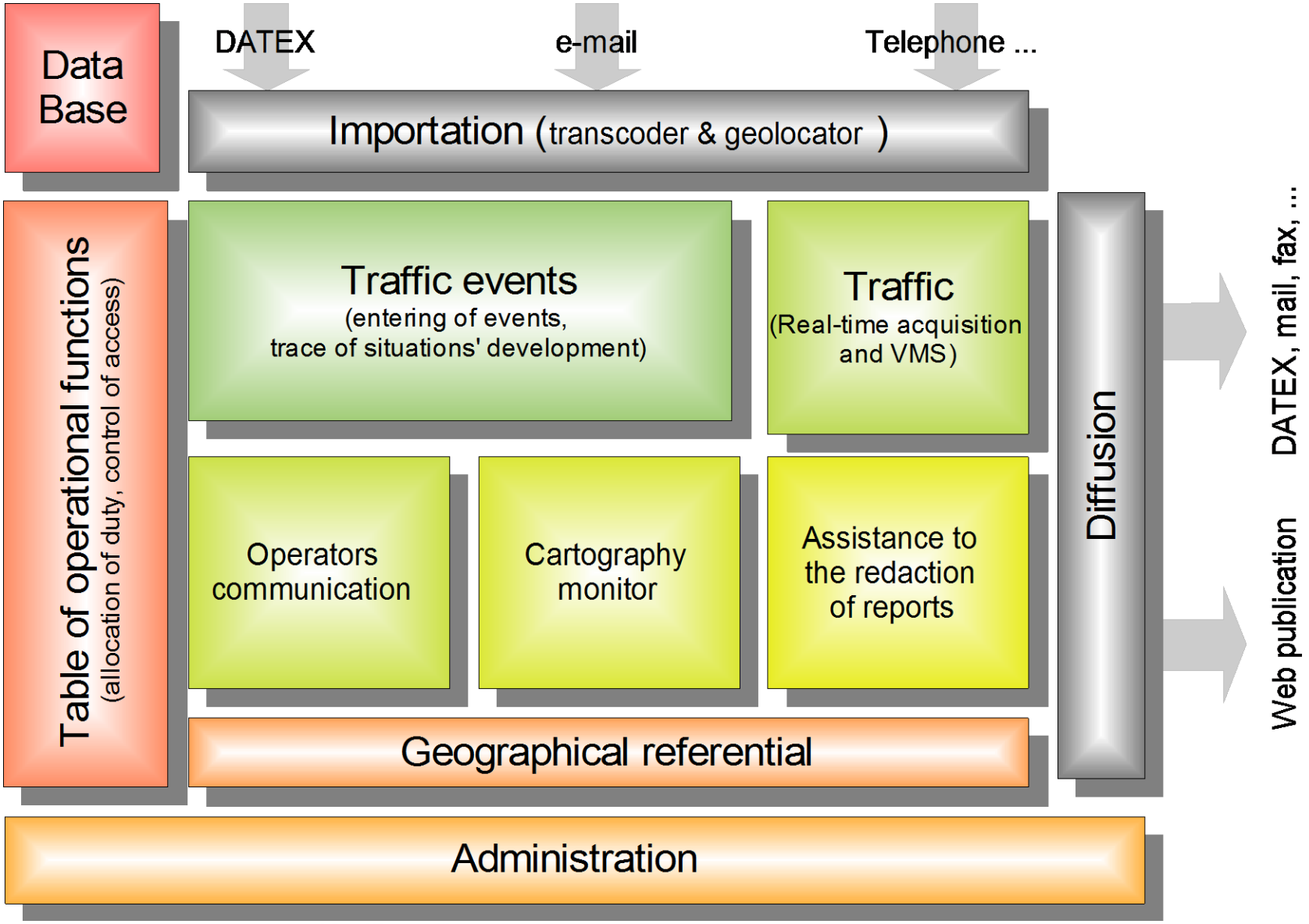
An architecture that eases further developpment and deployment

- A web application
- A single data-base
  - Enabling a common view shared by all stakeholders...
  - ... but to be elaborated with differents sources

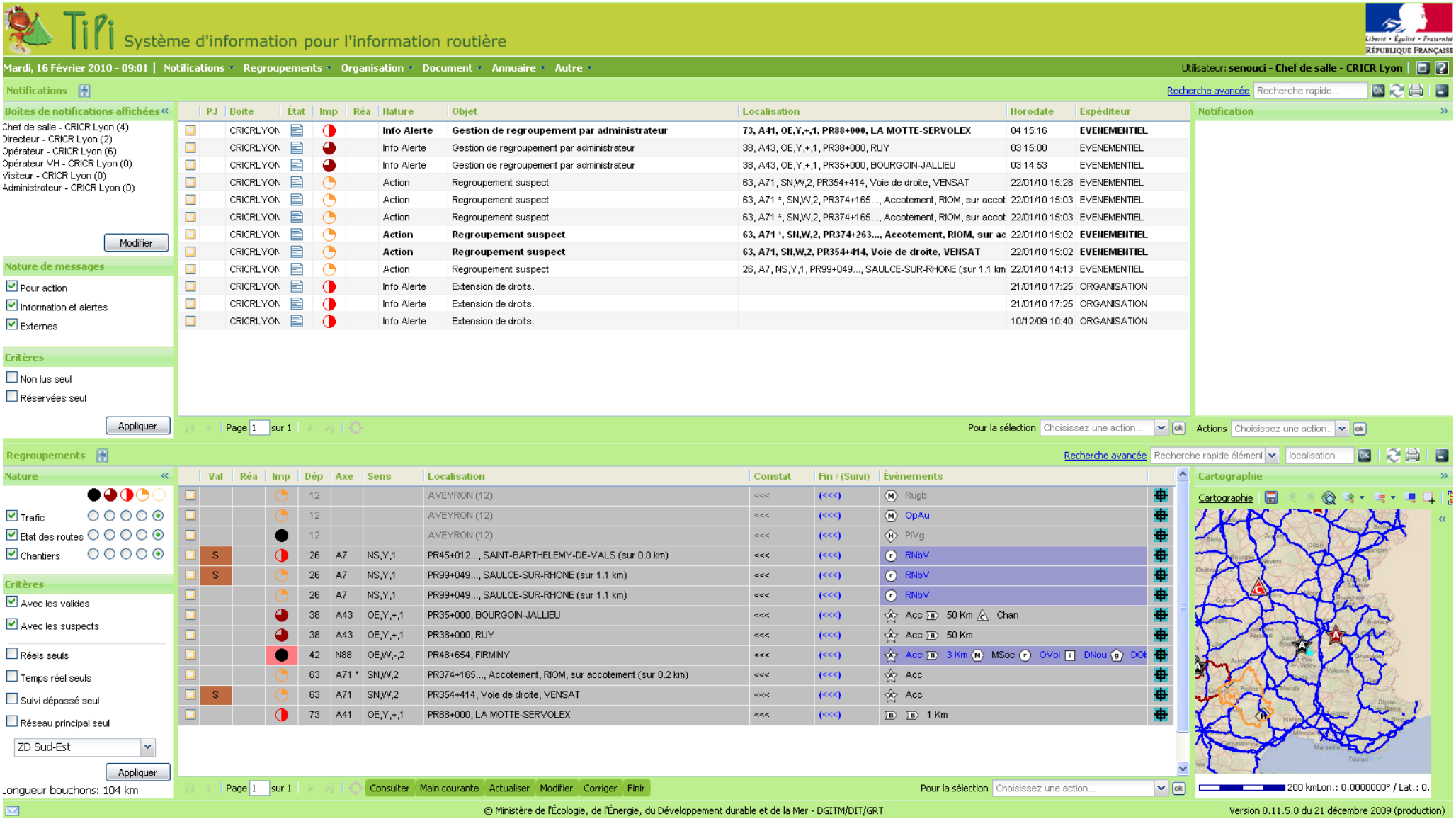
Planned extensions

- Integration of traffic data and VMS publications
- New design of the “Bison Futé” website allowing for reaching wider audience
- Grant access to all information available

Main functions



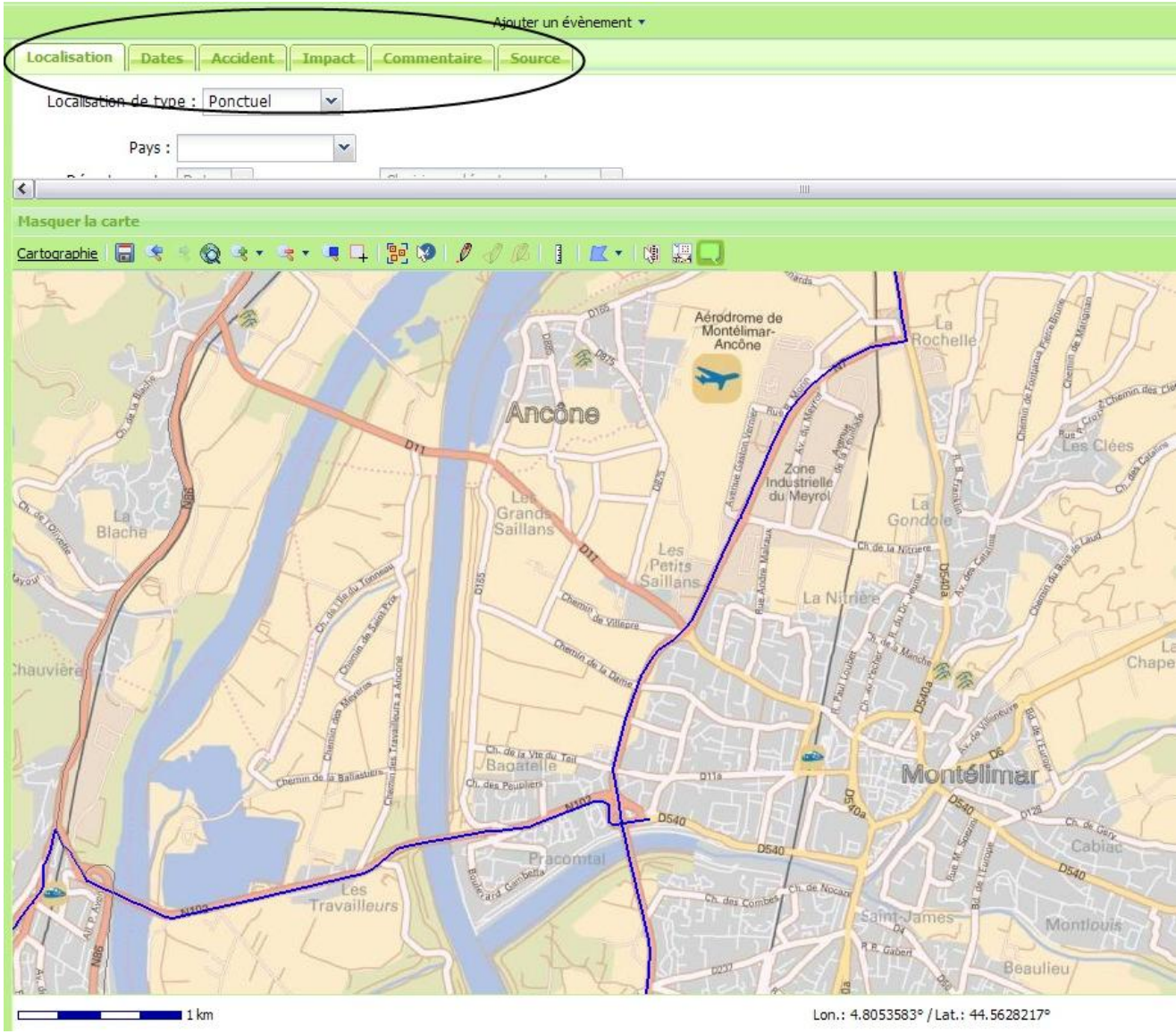
Operators' dashboard



Entering of events

Compliant with DATEX

Graphical interface



Reporting of a situation

Connexion - TIPI | **Main courante du regroupement ...**

Main courante du regroupement 090525-015398 - TIPI

Val	Réa	Imp	Dép	Axe	Sens	Lieu	Version	(enreg)	Constat	Fin	Évènements
			26	**A7**	**NS,Y,+,1**	**PR123+500, MALATAVERNE**	**1.0.0**	**1044**	**23 10:20**		**Acc**
							1.0.0	1044	23 10:20	>>>	**Accident mortel, 2 tués, 3 blessés, voie de gauche coupée, [bsdhkqcbsd,hvgxbnvgkfnjkbvgsdfn], , impact : voies réduites, (Source : brigade, par caméra)**
			26	A7	NS,Y,+,1	PR123+500, MALATAVERNE	**2.0.0**	**1233**	**23 10:20**		**Acc B 10 Km B 5 Km**
							2.0.0	1233	23 10:20	>>>	Accident mortel, 2 tués, 3 blessés, voie de gauche coupée, [bsdhkqcbsd,hvgxbnvgkfnjkbvgsdfn], , impact : voies réduites, (Source : brigade, par caméra)
						PR123+500..., MALATAVERNE (sur 10,001 km)	2.0.0	1233	23 10:20	>>>	**B bouchon 10 km/1 v., (Source : brigade, par caméra)**
					SN,W,-,2	PR123+500..., MALATAVERNE (sur 5 km)	2.0.0	1233	23 10:20	>>>	**B bouchon 5 km/2 v., (Source : brigade, par caméra)**
			26	A7	NS,Y,+,1	PR123+500, MALATAVERNE	**3.0.0**	**1238**	**12:38**		~~Acc~~ **B 10 Km B 5 Km**
							3.0.0	1238	12:38	FIN	~~Accident mortel, 2 tués, 3 blessés, voie de gauche coupée, [bsdhkqcbsd,hvgxbnvgkfnjkbvgsdfn], , impact : voies réduites, (Source : brigade, par caméra)~~
						PR123+500..., MALATAVERNE (sur 10,001 km)	3.0.0	1238	23 10:20	>>>	B bouchon 10 km/1 v., (Source : brigade, par caméra)
					SN,W,-,2	PR123+500..., MALATAVERNE (sur 5 km)	3.0.0	1238	23 10:20	>>>	B bouchon 5 km/2 v., (Source : brigade, par caméra)

Lessons learned...

Exchanges need first to meet an agreement upon what to transmit :

- The scope of the events which have to be reported and are useful...
  - The lack of data is sometimes due to a lack of means to collect this information (neither device nor rule of procedure)
- The way of reporting an event...
  - To ensure a short time of processing and a full understanding of facts
- ... With a view to avoid having as many interfaces as providers
  - DATEX provides a wide range to describe events

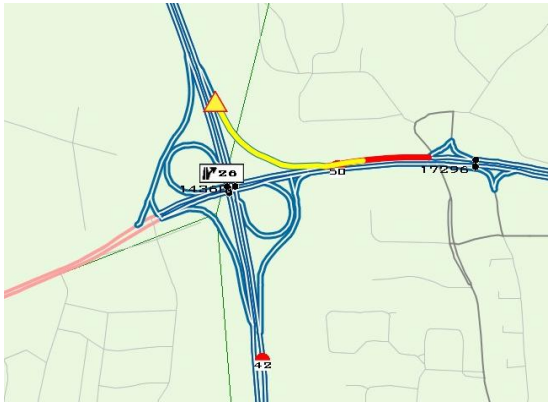
Harmonization within France through a Working Group

- Gathering representatives of all the actors involved
- Production of guidelines
  - *Details about digital road information (data available from the Ministry, specifications, conditions for access, etc.) are given at : http://diffusion-numerique.info-routiere.gouv.fr*
- An interest in sharing at European level

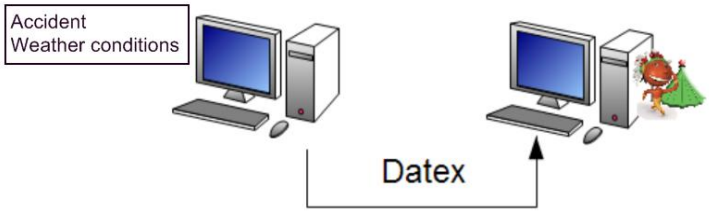
Lessons learned...

Points of vigilance

- To be able to locate an event with accuracy
  - To check there is no discrepancy
  - To deal with complex locations



- To manage the event lifecycle correctly
  - especially for those created in order to transmit all the revelant information available by the provider



Technical issues to address...

- To provide a way to retrieve information in case of service disrupting : storing all the publications dispatched and enabling a link from a file to the next one.
- To acknowledge in “push” mode
- Enhancement of data processing
  - XML needs space and time

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Thank you for your attention

For further information, please contact :

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