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INNOVATIVE TOOLS AND PRACTICAL METHODS TO IMPROVE THE SAFETY OF THE NATIONAL ROAD NETWORK IN FRANCE

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RÉPUBLIQUE FRANÇAISE

Ministère de l'Écologie, du Développement durable, des Transports et du Logement

OUTLINE

Introduction

Seven criteria for road safety linked to infrastructure

Four complementary procedures for improving road safety

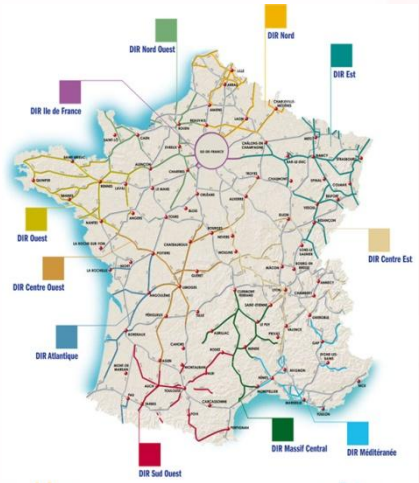
Assessment of the implementation of road safety inspections

ISRI’Cam: a tool to help inspectors

Conclusion

Some figures about French Road Network

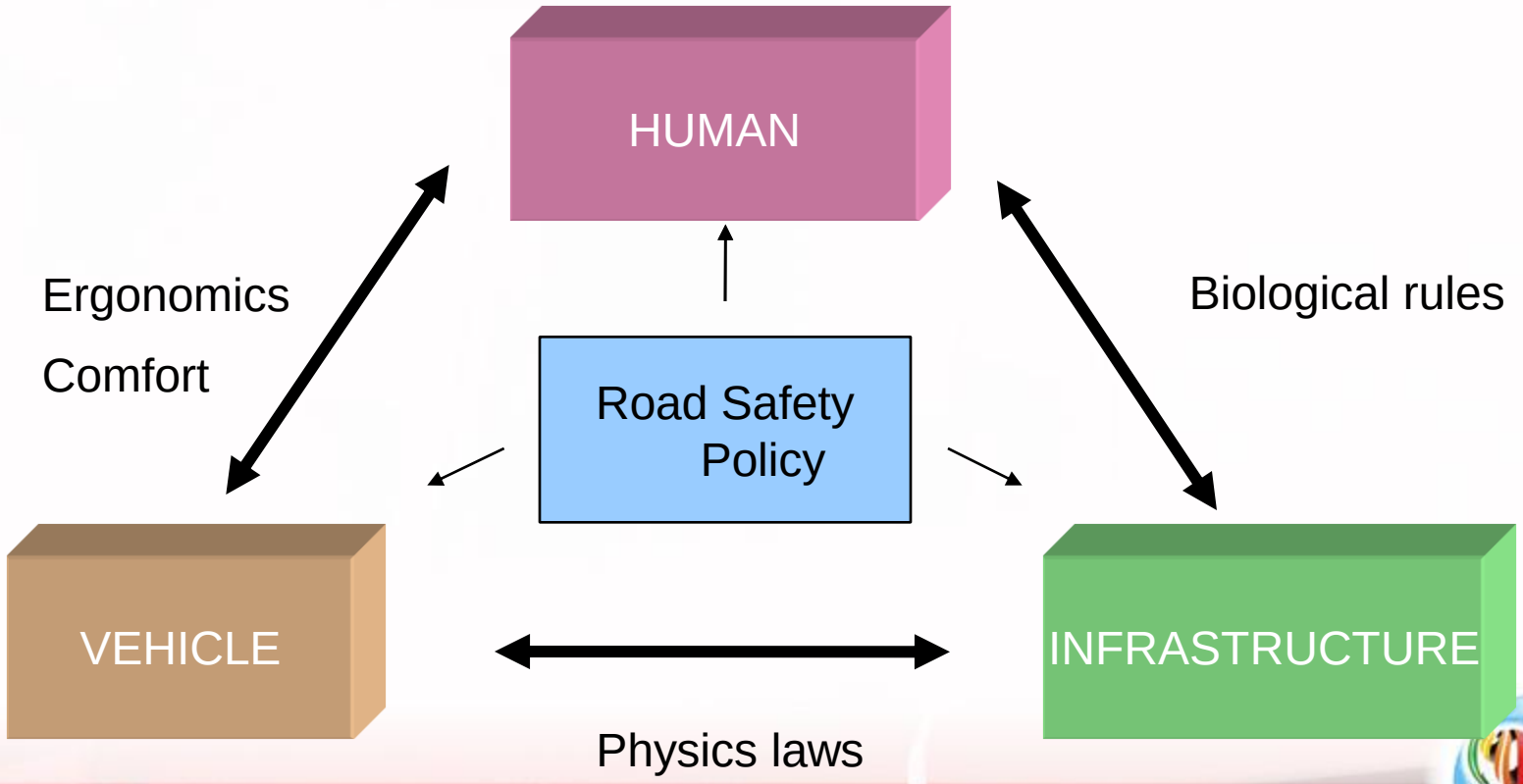
- 600,000 km of city roads
- 380,000 km of county roads
- 12,000 km of national roads and non-concession motorways
- 8,000 km of private concession motorways



Nearly 4,000 road fatalities in 2010 (25% are PTW's) compared to 8,160 road fatalities in 2000.

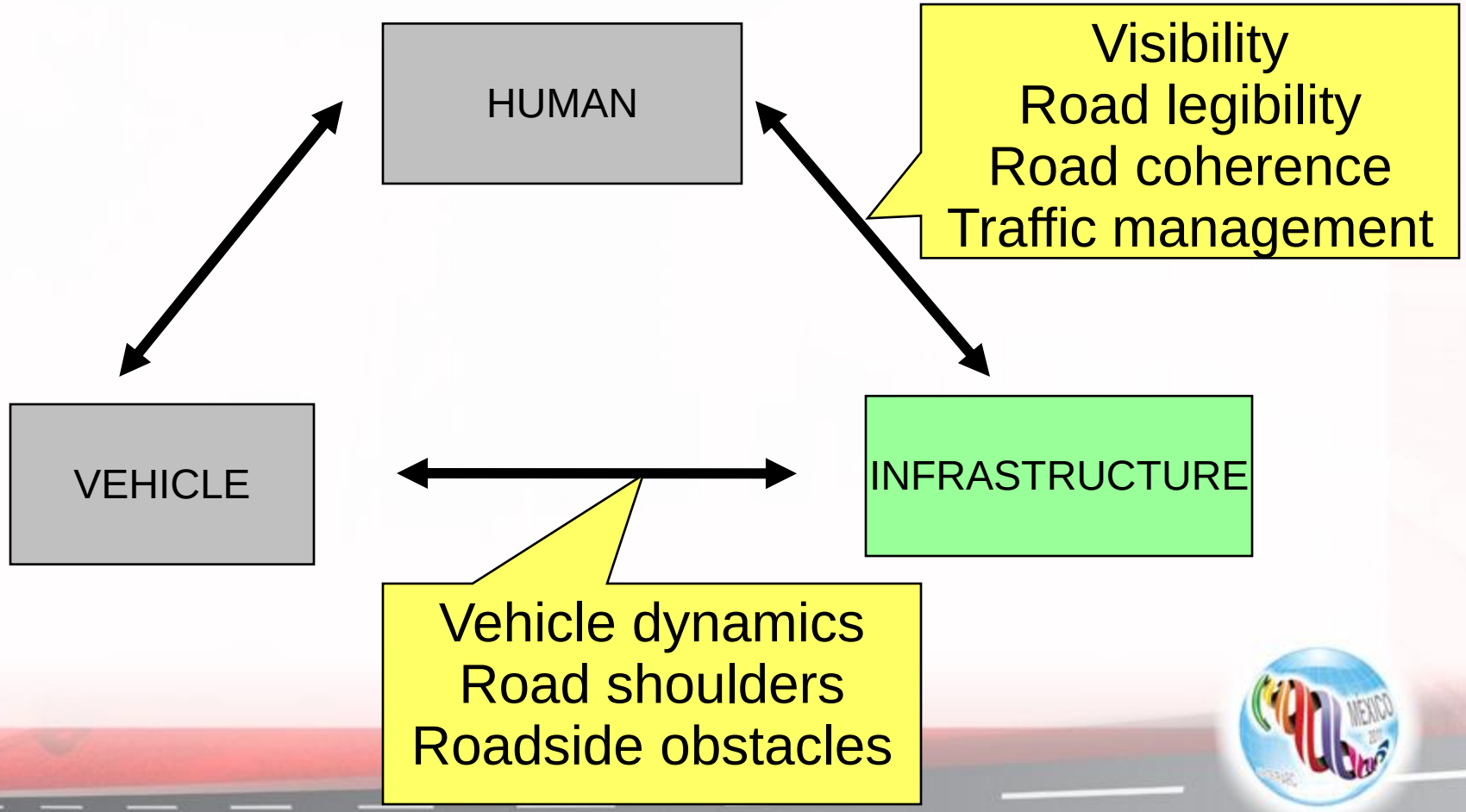
SEVEN CRITERIA FOR ROAD SAFETY LINKED TO INFRASTRUCTURE (1/3)

Sustainable road safety means systemic approach



SEVEN CRITERIA FOR ROAD SAFETY LINKED TO INFRASTRUCTURE (2/3)

Criteria linked to the infrastructure



SEVEN CRITERIA FOR ROAD SAFETY LINKED TO INFRASTRUCTURE (3/3)

Road coherence

Traffic management

Visibility

Vehicle dynamics

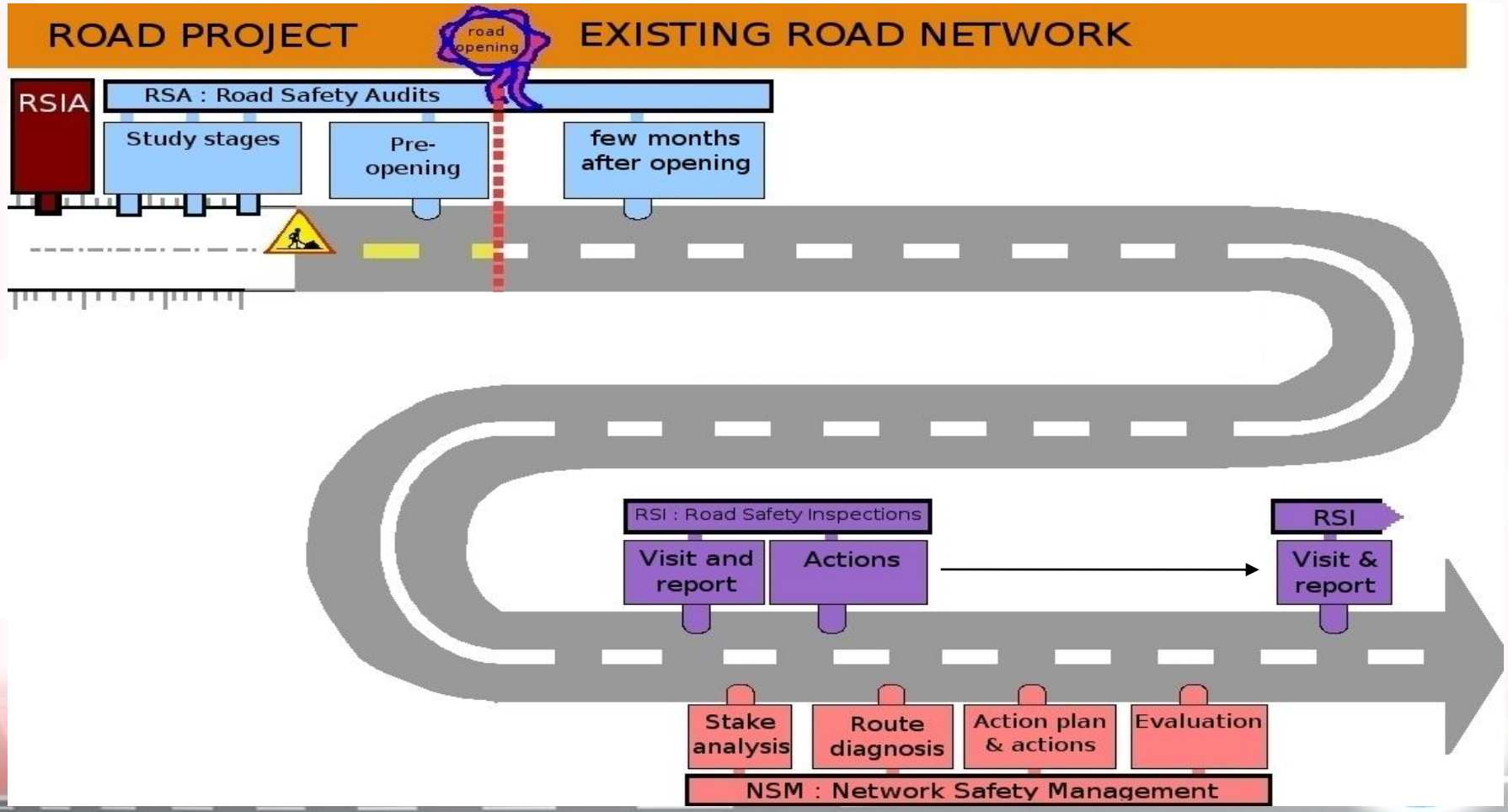
Road legibility

Obstacles

Road shoulders

FOUR COMPLEMENTARY PROCEDURES FOR IMPROVING ROAD SAFETY

Procedures in the EU-Directive 2008/96/EC



ASSESSMENT OF THE IMPLEMENTATION OF ROAD SAFETY INSPECTIONS (1/4)

The methodology

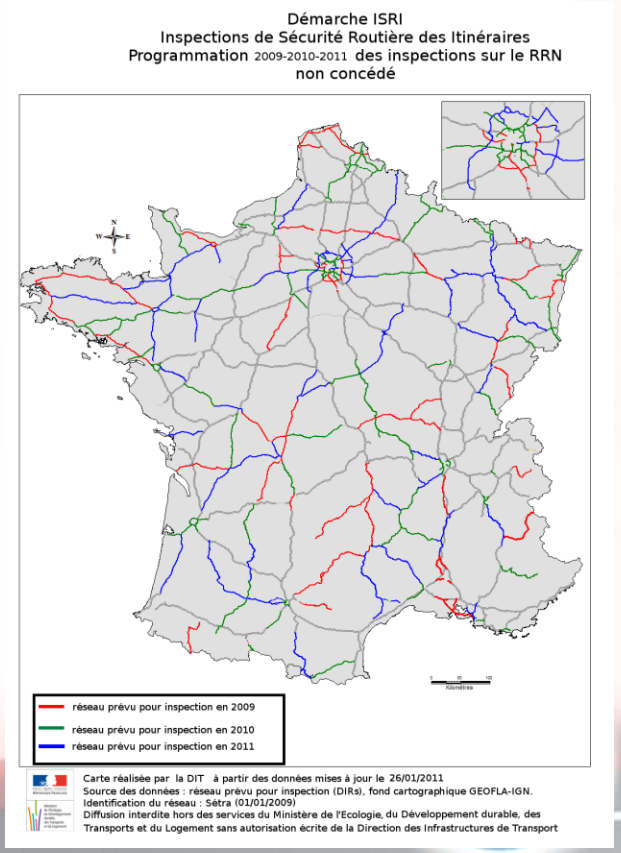
- 2 inspectors, trained, independent
- inspection during day and after, during night
- driving at normal speed in a car
- on the link section, during a round trip
- reporting the road safety events

➔ 1/3 of the national road network is inspected each year

ASSESSMENT OF THE IMPLEMENTATION OF ROAD SAFETY INSPECTIONS (2/4)

After 3 years of implementation on the national road network operated by State operators

- 12,000 km inspected
- 140 inspectors trained
- Each inspection:
  - average length: 80 km
  - average duration: 8 hours
- Number of events: 2.2 ev/km



ASSESSMENT OF THE IMPLEMENTATION OF ROAD SAFETY INSPECTIONS (3/4)

Analysing road safety events reported by inspectors

Road coherence

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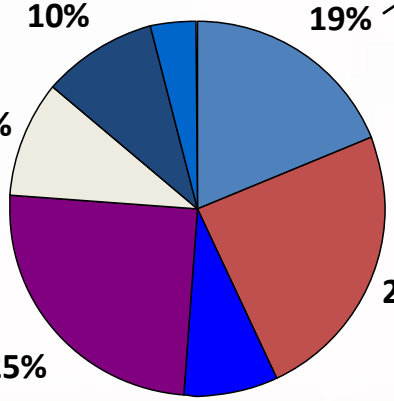
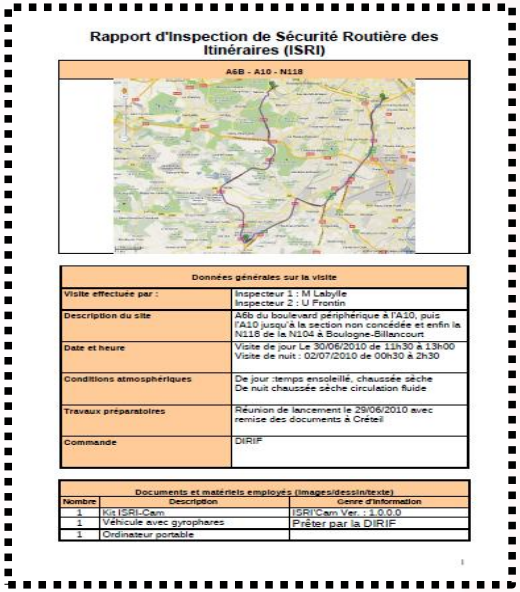


ASSESSMENT OF THE IMPLEMENTATION OF ROAD SAFETY INSPECTIONS (4/4)

After the inspection...

- A report is written by inspectors
- Inspectors explain & give the report to the local road operator during a meeting
- The report is completed by local road operator with the forecasted actions

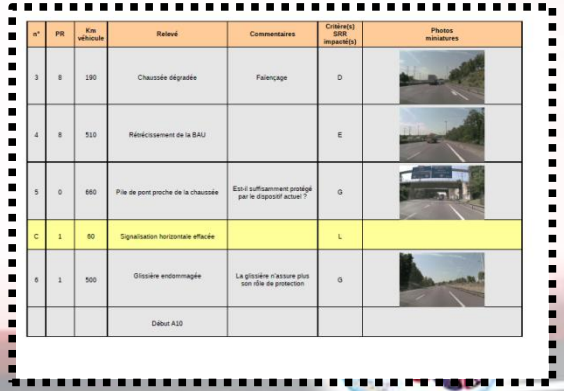


Rapport d'Inspection de Sécurité Routière des Itinéraires (ISRI)

A6B - A10 - N118

Données générales sur la visite	
Visite effectuée par :	Inspecteur 1 : M Labylle Inspecteur 2 : U Frontin
Description du site	A6b du boulevard périphérique à l'A10, puis l'A10 jusqu'à la section non concédée et enfin la N118 de la N104 à Boulogne-Billancourt
Date et heure	Visite de jour Le 30/06/2010 de 11h30 à 13h00 Visite de nuit : 02/07/2010 de 00h30 à 2h30
Conditions atmosphériques	De jour :temps ensoleillé, chaussée sèche De nuit chaussée sèche circulation fluide
Travaux préparatoires	Réunion de lancement le 29/06/2010 avec remise des documents à Créteil
Commande	DIRIF

Documents et matériels employés (Images/dessin/texte)		
Nombre	Description	Genre d'information
1	Kit ISRI-Cam	ISRICam Ver. : 1.0.0.0
1	Véhicule avec gyrophares	Prêter par la DIRIF
1	Ordinateur portable	

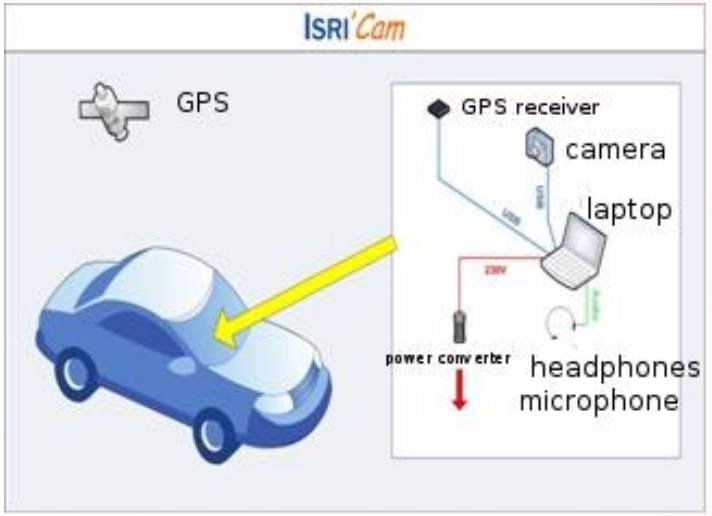


n°	PR	Km véhicule	Relevé	Commentaires	Critère(s) SIRI impacté(s)	Photos miniatures
3	8	190	Chaussée dégradée	Faïençage	D	
4	8	510	Rétrécissement de la BAU		E	
5	0	660	Pile de pont proche de la chaussée	Est-il suffisamment protégé par le dispositif actuel ?	G	
C	1	80	Signalisation horizontale effacée		L	
6	1	500	Glissière endommagée	La glissière n'assure plus son rôle de protection	G	
			Début A10			

ISRI'CAM : A TOOL TO HELP ROAD SAFETY INSPECTORS

For each event, inspector press the « Space Bar » and…

- GPS location is saved, a photo is taken, a sound file is created
- At the end of the inspection, the pre-report is automatically created



N°	PR	Km véhicule	Relevé	Commentaires	Critère(s) SRR impacté(s)	Photos miniatures	Fichiers son	Actions envisagées
49		20,480						
50		20,761						
51		20,796						
52		21,052						
53		21,503						

CONCLUSION

What makes a road a “sustainable safe road” ?

- A systemic approach (on infrastructure / driver / vehicle)
- Complementary methodologies (preventive / reactive)
- A structured reasoning (stake analysis / diagnosis / action plan / evaluation)
- An action based on the understanding of accidents, adapted to the local context

=> A mix of a « self-explanatory road » (easy to understand) and a « forgiving road » (which gives a chance to users)

Technical publications in English are downloadable for free at:

http://www.setra.equipement.gouv.fr/-In-English.html

Obstacles

Railway crossings

Landscape and legibility

Stake analysis

Road Safety Inspections

THANK YOU FOR YOUR ATTENTION !