VINCI AUTOROUTES
Dynamic traffic management

Deauville
October 2013
VINCI Autoroutes: The first motorway operator in Europe
4 385 km of motorway network

4 motorway networks:
ASF, Cofiroute, Escota & Arcour
Over 50% of the French toll motorway network

VINCI Autoroutes at a glance:
7 236 Permanent employees
273 rest areas
4 363 km Motorway network in operation
171 services areas
22 km Motorway network in project or in construction
+ 2 millions customers per day

figures of December 2012
3 main missions: insure 24/7

- Traffic management
- Travel assistance
- Viability preservation
FOCUS ON THE RHONE VALLEY CORRIDOR (A7)

- One of the busiest interurban roads in Europe
- A 3-lane configuration carrying (2012):
  - 80,000 veh/day (AADT)
  - 120,000 veh/day (ASDT)
  - 170,000 veh/day in peak-periods
  - 20% of trucks (AADT)
  - 30% of foreign drivers in summer
Optimize the traffic flow:

- Dynamic speed limits
- A complement: ban on trucks overtaking
- Real time speed information campaigns
- Real-time traffic information
- And other prospect measures
DYNAMIC SPEED LIMITS

Operational over 600 km on Vinci Autoroutes (485 km on the Rhône valley):
- 400 km deployed between 2004 and 2013
- Extension over 200 km in 2013

Traffic disruption detected up to 30 minutes in anticipation

Display variable speed limits by steps (110, 90, 70) according to real-time traffic conditions

An effective measure:
- 30% decrease of accidents
- 25% drops of congestion
- 85% of satisfied customers
- Budget balanced after one year of operation (socio economic analysis – 2004)
DYNAMIC SPEED LIMITS

Monitoring tools:
- Inducing loops every 5 km
- Speed map
- CCT Camera

Algorithm runs on the basis of section capacity to forecast congestions and to warn operators.

Variable message sign:
- Information has been recently reinforced to provide a speed sign every 10 km on the mainline and after every on-slip road.

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BAN ON TRUCK OVERTAKING

VMS used to inform drivers
BAN ON TRUCK OVERTAKING

A simple system allowing to enhance effectiveness of variable speed limits

21 sections being deployed since 2007

Emphasizes the virtuous effects of speed control:

- 17% decrease of accidents with trucks involved
- Increase of average speed at equivalent flow rates (nearly 8% when traffic up to 5000 veh/h)
REAL TIME SPEED INFORMATION

Speed control and real-time individual information:

- To sensitize drivers and to favor the speed respect (no enforcement)
- To enhance the effects of other measures

Nearly 70 devices implemented on the heavy sections

Activation according to the traffic level, the period and to the kind of drivers (local, transit)
REAL TIME SPEED INFORMATION

- Message display
- Speed measurement
- Regulation speed display

Environ 500 m

Nearly 500 m
REAL-TIME TRAFFIC INFORMATION

Vinci autoroutes delivers real-time information to help customers plan trips or help co-drivers find information throughout the trip.

On the road: VMS

On-air: Radio Vinci-Autoroutes
- 3 production centers
- 1 message proceed every 3 min on average
- Program interruption in case of alert
- Affectation of broadcasting areas according to the traffic conditions so as to provide the information required

In-car information: dedicated software
- Geolocalised info, interactive and community service (emergency call, events notice, access to radio vinci autoroutes, etc…)

On the road: VMS

SORTIE 22
CONSEILLE
BOUCHONS

XXXXXXX
XXXXXXX
VALEN CE  2 0 M N
ORANGE   50M N
A7
REAL-TIME TRAFIC INFORMATION
Focus on travel time service

Travel times everywhere at any time on the ASF network since June 2010:
- A true first on widespread interurban networks
- In access, before the entry on the network
- During the trip, every 15 to 30 minutes
- Multi channel coverage:
  - Around 400 VMS
  - Radio Vinci Autoroutes (107.7)
  - The Internet

A combination of data used to assess a travel time:
- Inducting loops
- Individual travel time Video counting (number plate recognizing)
- Travel time provided by toll data
PROSPECTS

Combination of measures on a peri-urban network (bypass of Montpellier)

- Managed lanes
- Dynamic information for queue protection and
- Automatic incident detection
- Video surveillance
Thank you for your attention
Any questions?