

Pour un trafic
fluide et sécurisé

PONT DE SAINT-NAZAIRE



Reversible lane on Saint-Nazaire bridge

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Reversible lane on Saint-Nazaire bridge - CONTEXT

The bridge :

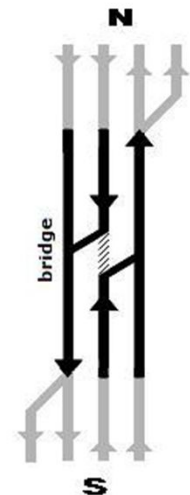
- A huge structure (3600 m long, 60 m high)
- The only Loire estuary crossing between Nantes and the ocean
- Working area and companies northside (shipyard, Airbus...), residential area southside



→ **3 lane bridge, located on a four-lane road (RD213)**

- 2 lanes going up to the top of the bridge
- 1 lane going down

→ **No room for a 4th lane**





Reversible lane on Saint-Nazaire bridge – traffic

→ 27,000 daily users – mostly commuters,

- Mornings: from home to work (northbound)
- Evenings: from work to home (southbound)

→ Daily summer traffic is 34,000 veh due to the seaside

Type de journée		Sens	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	Nuit
S E P T	Jour ouvré chargé	Vers St-Nazaire	600	1800	1600	1100	900	800	800	1000	1100	1000	1100	1200	900	700	400	300	200	
		Vers St-Brévin	200	700	900	700	800	900	1100	900	900	1100	1600	1700	1700	1200	600	400	300	
	Samedi chargé	Vers St-Nazaire	200	300	600	1000	1000	800	700	900	1100	1000	1000	1100	1100	800	500	300	200	
		Vers St-Brévin	100	200	200	500	1100	1300	1100	700	900	1100	900	1000	1100	1100	600	400	300	
	Dimanche et Jour férié chargé	Vers St-Nazaire	100	200	300	400	700	1000	900	600	700	800	1000	1400	1700	1300	800	500	300	
		Vers St-Brévin	200	400	600	600	800	1000	1100	700	900	1000	1300	1400	1600	1000	600	400	200	
S U M M E R	Jour ouvré	Vers St-Nazaire	600	1500	1400	1100	1200	1100	900	1100	1300	1300	1200	1300	1100	900	600	400	300	
		Vers St-Brévin	200	500	600	700	1000	1300	1400	900	1100	1300	1500	1600	1600	1600	1000	500	400	
	Samedi	Vers St-Nazaire	200	400	700	1000	1500	1400	1100	1000	1300	1300	1300	1300	1200	1000	700	500	400	
		Vers St-Brévin	100	300	500	700	1100	1400	1600	1100	1200	1400	1400	1400	1500	1300	800	600	400	
	Dimanche et Jours fériés	Vers St-Nazaire	100	200	200	400	900	1100	1000	800	900	1000	1200	1600	1700	1400	1100	900	600	
		Vers St-Brévin	200	200	400	600	1100	1300	1600	800	900	1100	1100	1100	1200	1200	700	500	300	
Pointe	Vers St-Nazaire	500	1100	1200	1100	1300	1300	1000	1200	1500	1500	1300	1300	1300	1100	700	500	400		
	Vers St-Brévin	200	500	700	800	1100	1300	1500	1200	1300	1500	1600	1600	1600	1500	1100	700	500		

Free-flow

Dense

Very dense

Saturated



Operating mode since 25th Aug 2010 (opening date)

→ The central lane direction changes according to traffic...



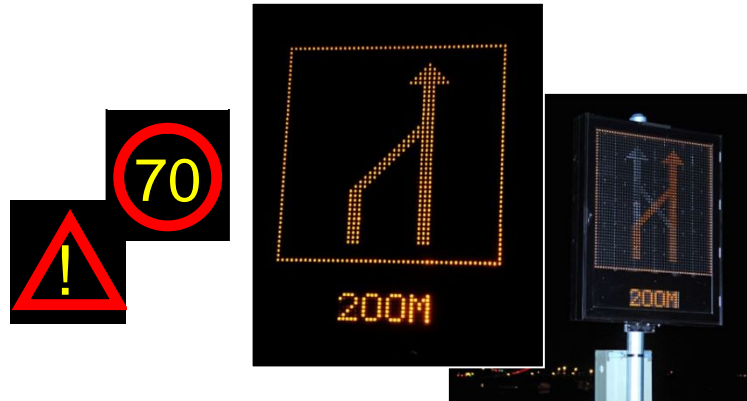
→ ...but lane control also takes into account roadworks or incidents





A system well understood thanks to the guidance

→ With vertical dynamic signs



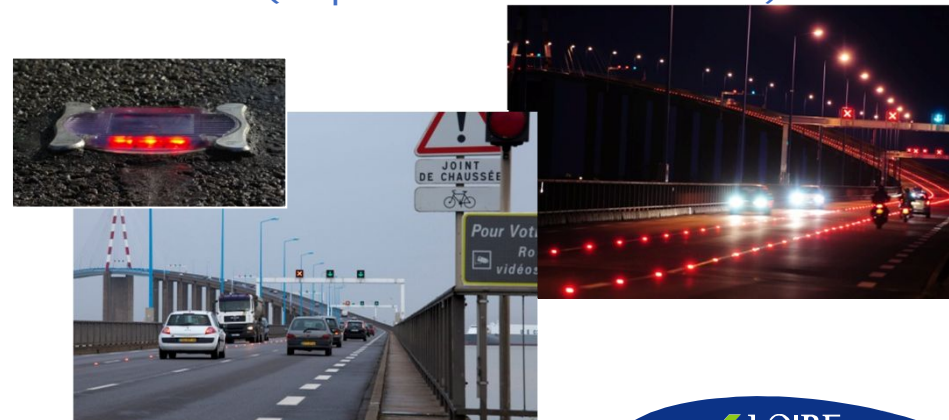
→ With physical lane tapering devices



→ With lane assignment signals every 250 m



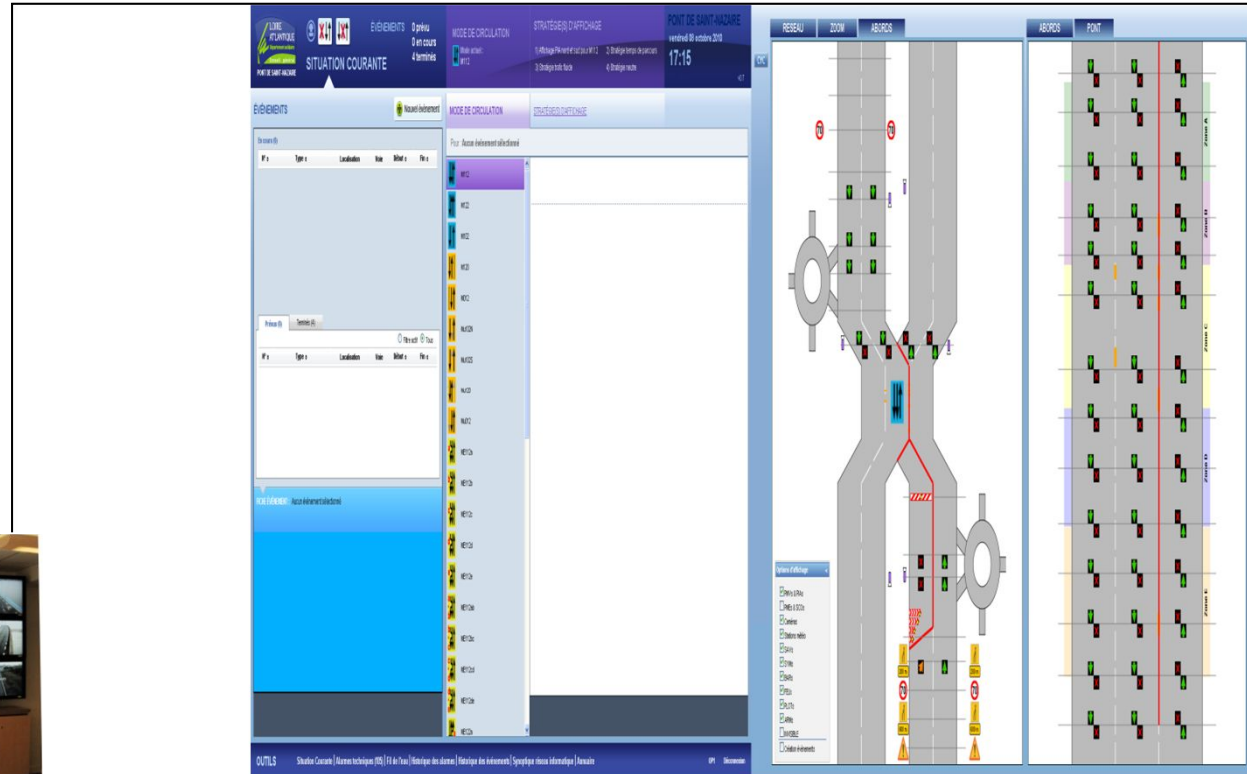
→ With red light studs embedded every 6.5 m (experimental in France)





→ Traffic monitoring by the « PC Route » (local TMC)

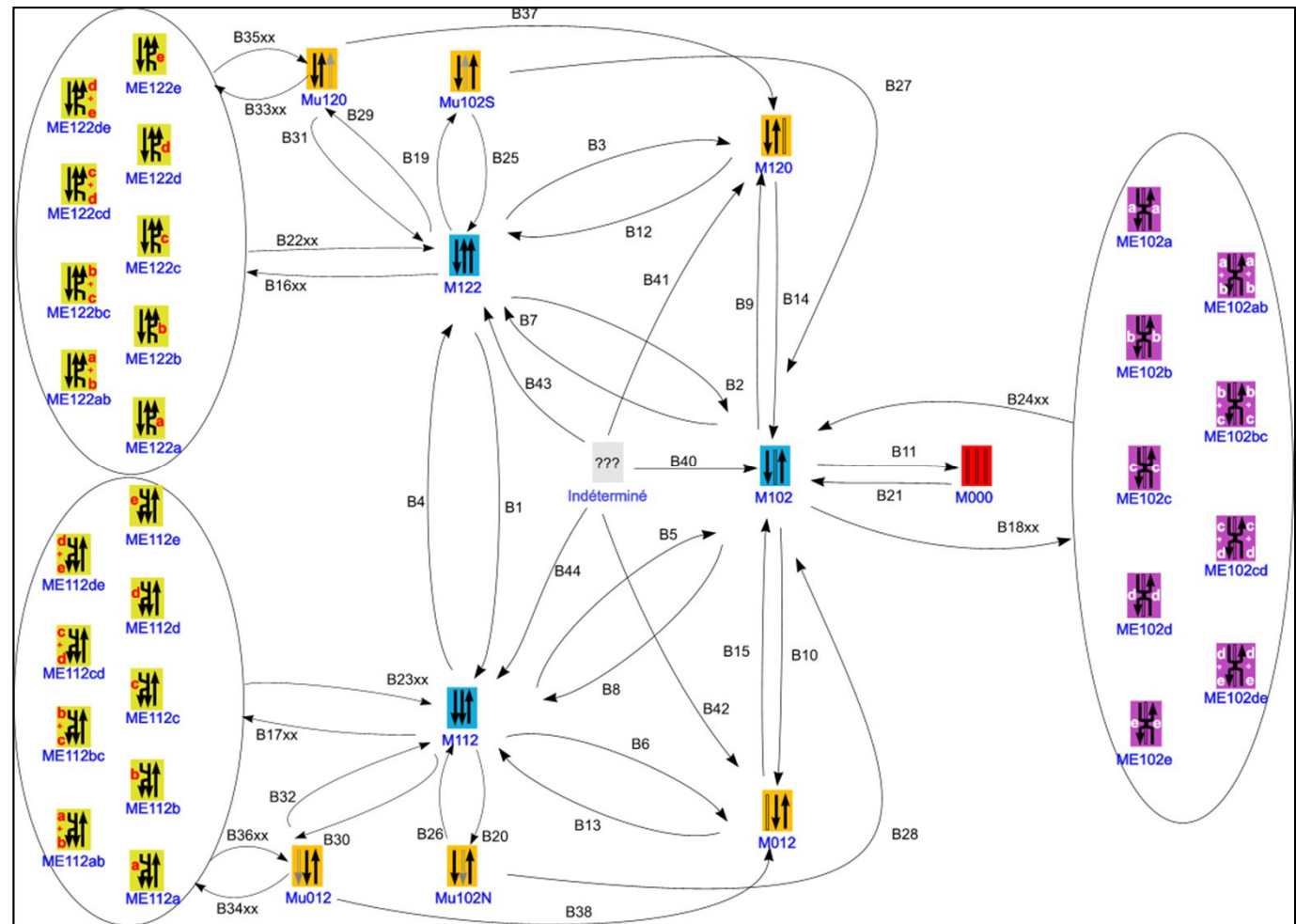
- Pre-established process for central lane change of direction (semi-automatic)
- Individual equipment monitoring available



→ A failsafe mode = each category of equipment monitored separately



- 38 traffic modes
- 119 transitions (from one mode to another)
- With an « indeterminate mode » if fault (not recognized by system)





→ Communication

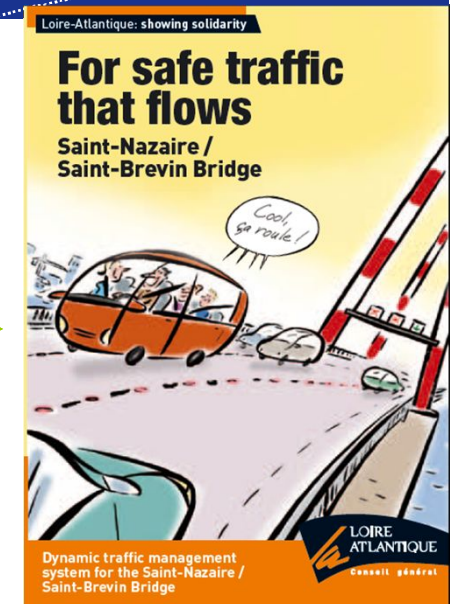
- 4 trimestrial newsletters sent to the neighbouring area before opening (50,000 copies)
- 1 « educational » leaflet (80,000 copies with English version available)
- Real-time information available on internet (www.cg44.fr)

→ A highly appreciated and well understood system

- Signals and studs respected – no accidents due to misunderstanding or misuse
- All operating modes successfully used or tested
- Lots of letters/e-mails highlighting user satisfaction

→ Evaluation foreseen (2011)

- Traffic, security and environmental aspects
- User behaviour and system understanding analysis
 - Video
 - Surveys in large local companies





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Thank you for your attention !

For more details, contact

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