

# PATH-INRETS Scientific Cooperation in the Field of Intelligent Transportation Systems (ITS)

# INRETS and PATH have been involved in ITS cooperation for the last 17 years

- Started in 1989 under Bob Parsons, Path director and in partnership with Y.B Yim
- Under California DoT sponsorship
- Under French DoT sponsorship
- Mainly through a U.C /INRETS collaboration:
  - U.C Berkeley PATH Program (California Partners for Advanced Transit and Highways)
  - CCIT program (California Center for Innovative Transportation) Berkeley
  - Several INRETS Labs

# Rationale for ITS cooperation

- Similar problems of congestion, traffic safety, urban sprawl, environment quality
- Similar involvement of the private sector to find new business opportunities in the field of ITS
- Similar in size and economy

# Rationale (con't)

- Different political agenda and approaches
- Needs for better cross-evaluations of policies already implemented as a mean to not reinvent the wheel

# Cooperation outputs

- Over 20 papers and reports co-signed by researchers from both sides
- Exchanges of scholars and postdocs between research organizations (from two months to one year periods)
- Seminars respectively held in California and in France with industry, academic and Dot's representatives
- Funding of common R&D projects by French and CA Dots

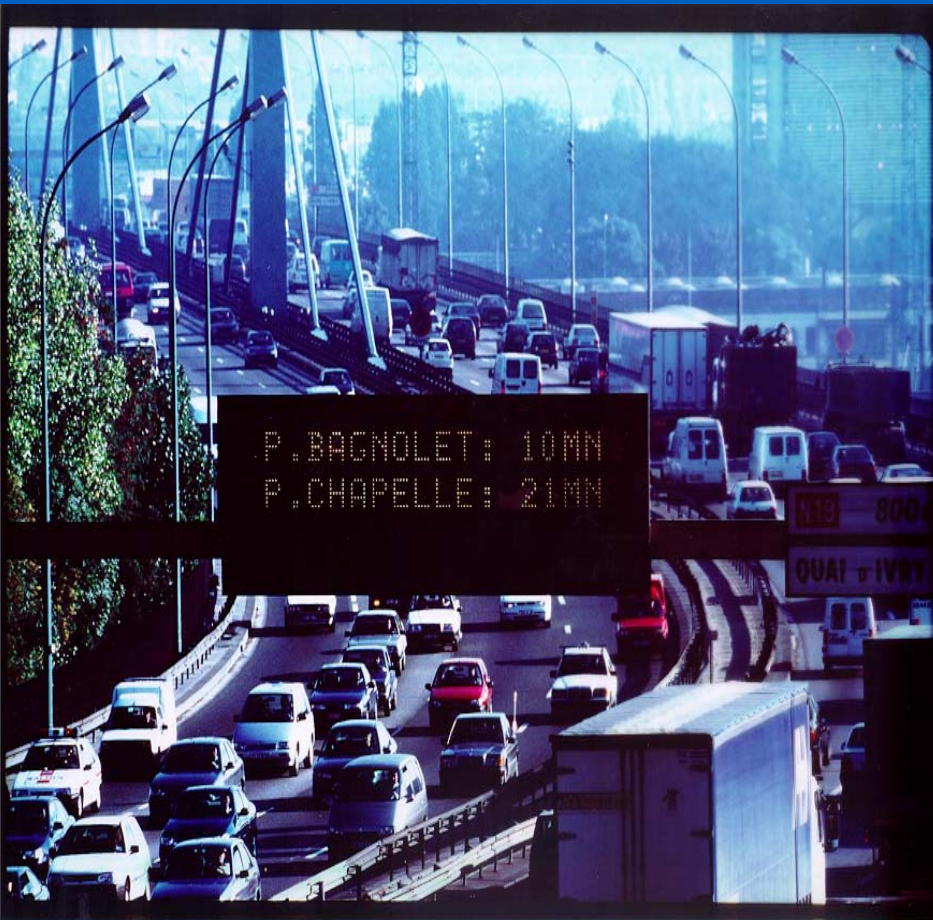
# A few examples of projects launched over time

- Evaluation of traffic info posted on Changeable message signs for travel behavior and route choice
- Use of cellular probes to collect traffic information
- Economic assessment and business models for providing internet connections to train users

# Travel Times on CMS (Yim, Ygnace)

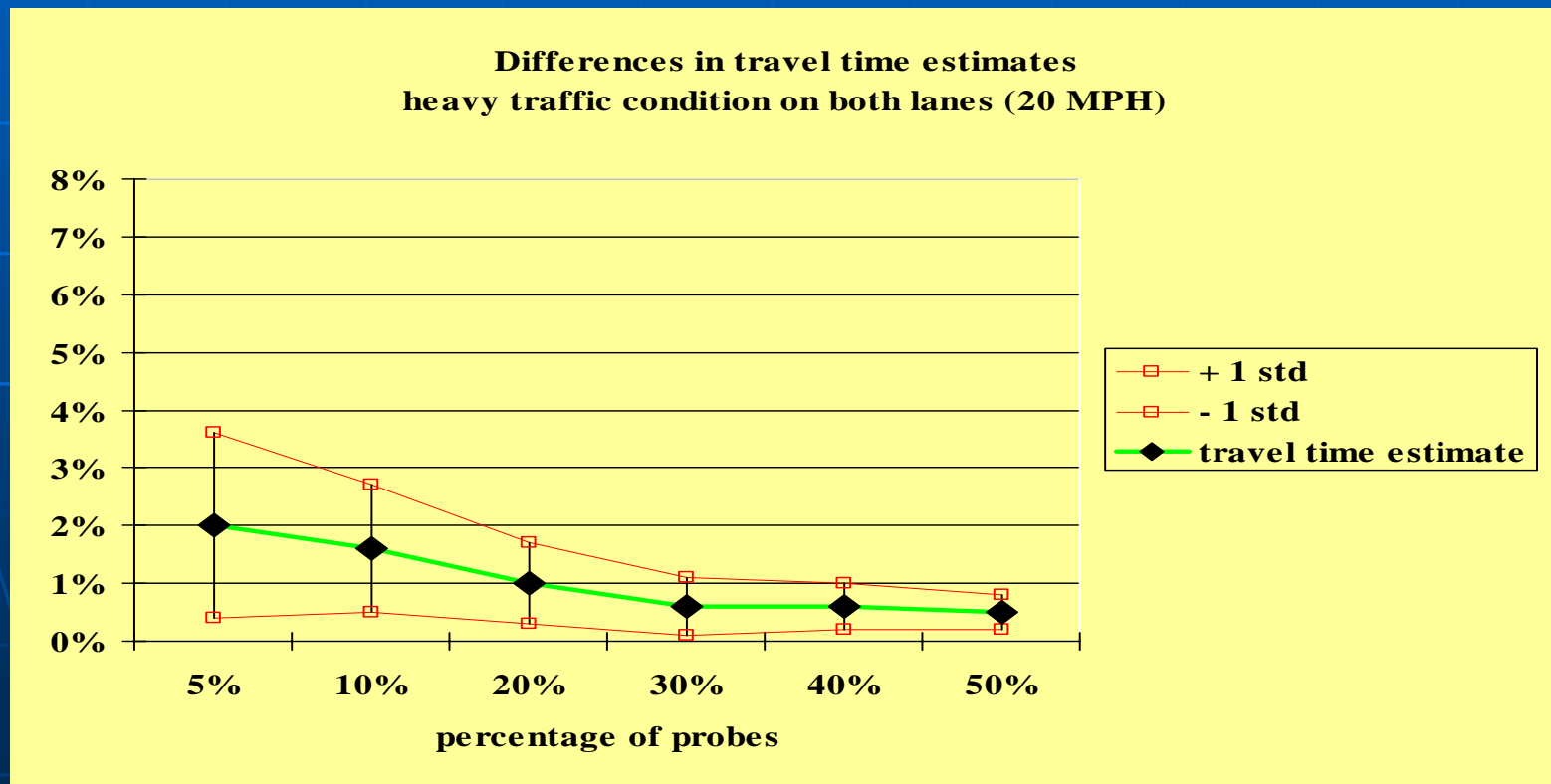
- Evaluation of alternate route choices based on travel times posted on CMS
- Market issues of traffic information – comparisons between French and California situations

# CMS in Paris and in the Bay Area

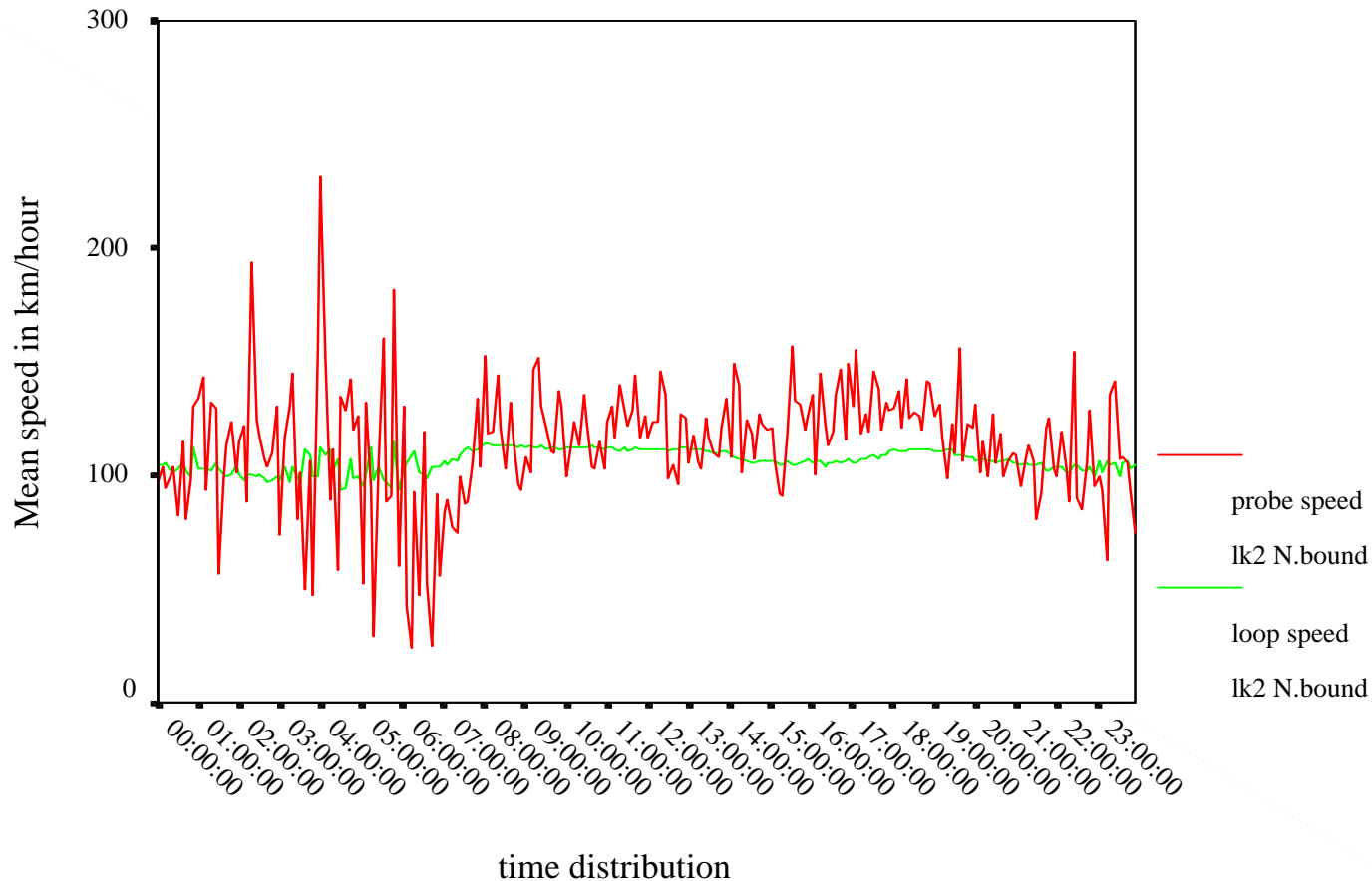


# Traffic probes from cellular positioning (Yim, Ygnace, Drane –University of Technology Sydney)

- Theoretical models for feasibility studies - conducted at PATH

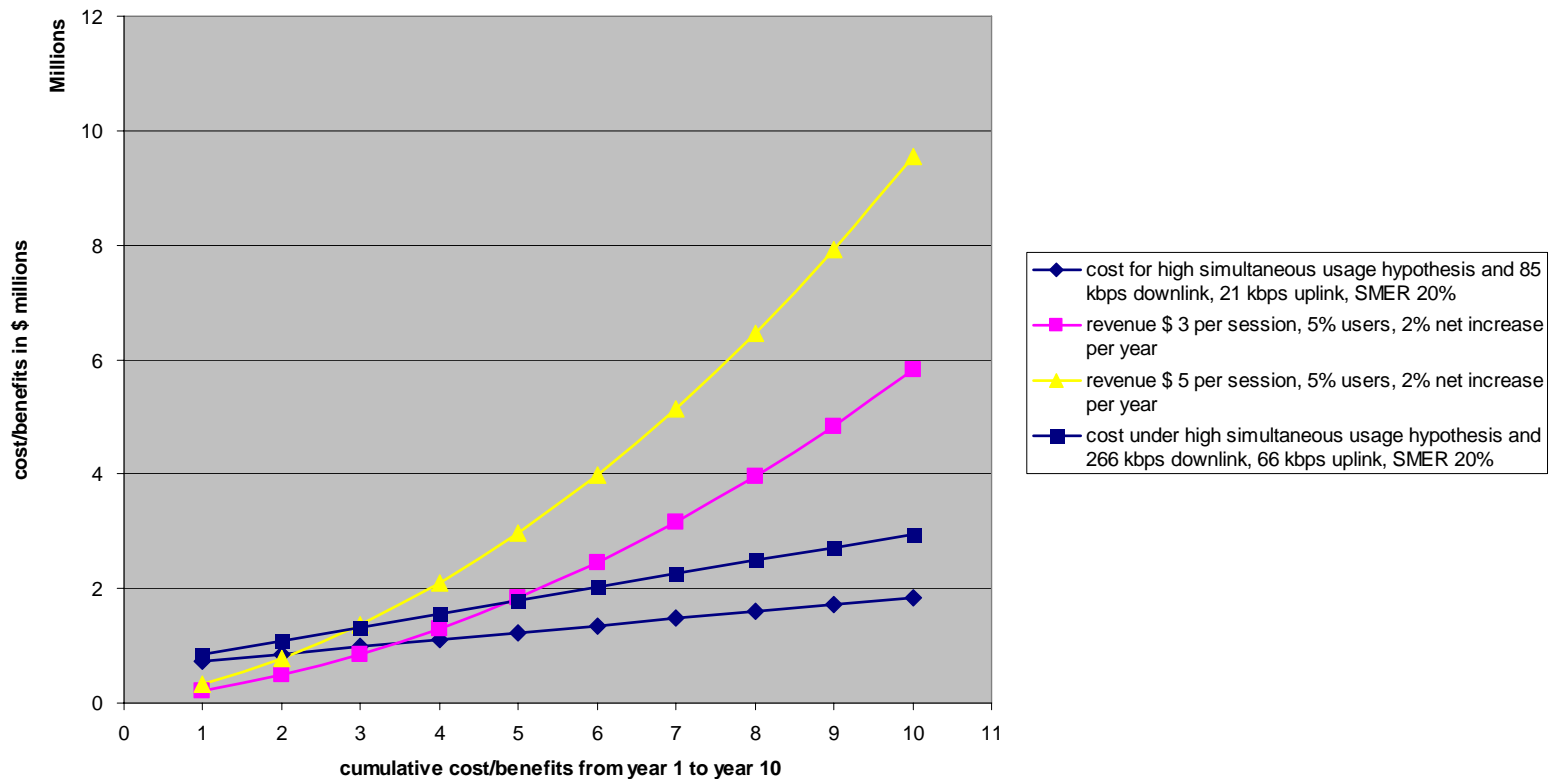


# Experiments conducted in France have validated the models ( Ygnace, Chao Chen and all)



# Wifi and High speed internet on trains : economic assessment : California, Japan, France (kanafani, Benouar, Ygnace, Yamada and all)

CCJPA ( San-Jose Sacramento) Cost/benefits under a Satellite/cellular Communication Model



# Agenda for the next 17 years

- To be discussed !

- Thanks for your attention