

FOT-Net

# **Related trends and efforts in Japan**

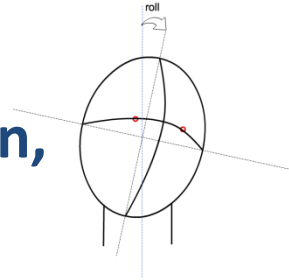
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- 1. How could we share driver data including video on a global level?

- **Standardizing a common parametric representation, through which privacy can be neutralized.**



- 2. What are the requirements on the organisations storing/analyzing the driver data?

- **Sustainable, transparent, one-stop service.**



- (Learn from DARPA speech project, NIST, LDC, ELRA ...)

- 3. How could different stakeholders contribute to facilitate driver data sharing?

- **Networking RESEARCHERS.**



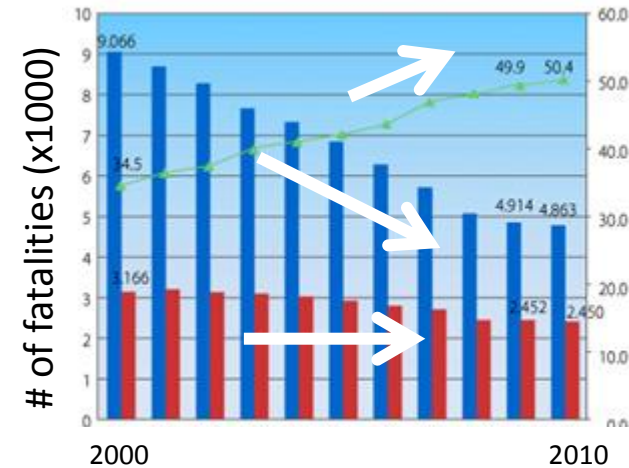
- 4. How and by whom will driver data be collected in the future and how will that affect the data sharing?

- **Driver data will come to service providers AUTOMATICALLY. Fostering healthy market of the data will be goal of data sharing**



# Background - FOT/NDS in Japan -

- Number of fatalities is reducing, elderly drivers and pedestrians become issues.
- Early national projects on ADAS research but limited penetration.
- 3.11 disaster proved great social impact of floating data.
- Historical data collections
  - ITARDA (accident statistics)
  - AIST(On-road exp.), JARI/TAT (EDR), NU (On-road exp.)
- Not yet national strategic data collection efforts like EuroFOT and SHRP2.



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# Recent Related Trends

- **Next Generation Car Conference (2013.3-5)** organized by Ministry of International Trade and Industry (MITI)
  - discussing the vision of automotive industry at 2030
- **Special Interest Group on Vehicle ICT (SIG-VICT)**
  - Discussing national ICT projects for enhancing future automotive industry
    - University: Kyoto U. (chair), Nagoya U. (secretary), The U. of Tokyo, Nippon U., TAT
    - Research Institute: JARI, Internet ITS Consortium
    - OEM: Toyota, Nissan, Honda, Mitsubishi
    - Auto Supplier: DENSO, Hitachi, Aishin
    - ICT: Fujitsu, Intel, Toyota Technical Development Corp.
    - Observer: MITI
- Prime minister Shinzo Abe addressed on **driverless car** as an example of deregulation policy package of his Abenomics. (2013/5) Nissan and Toyota followed up.

# Topics of SIG-VICT

- Discussed five areas of study
  - Software car (Vehicle as a platform)
    - Will become issue sooner or later. Too far to draw roadmap.
  - Adaptive interface (Personalized Car)
    - Already competing area.
  - FOT/NDS research
    - Important target for the next project.
  - Public use of location data
    - Privacy issues. Need national research. Already competing area.
  - Autonomous Driving
    - (before Abe's address) Business model? (after Abe's address) Need research on the *Japan-style* autonomous driving?
- Conclusion
  - **FOT/NDS research** can be the primary target of national project.

# Project under negotiation

- Package title 'Next Generation ADAS'  
(2014 FY, JPY1B in preliminary estimate document by MITI)
  - **Predictive Safety Technology (運転知能=driving knowledge)**
  - Small size, multi-beam Range Finder
  - System liability of ADAS (security, fail-safe)
- Goal of the Predictive Safety Technology
  - Modeling skilled driver's behavior so that the vehicle can predict *potential* dangers well in advance and avoid it.
- FOT/NDS in the Project
  - Pattern recognition, Driver modeling and Human Factor researches for predictive driving of skilled drivers and use them in next generation ADAS.
  - Technologies for 5,000-car FOT.
    - Technologies for analyzing continuous recordings of vehicle/traffic/driver data (against low fidelity, large size etc.)

