1990 2000 2009-2011 1996-2003 2005-2009 2008-2011 CITYMOBIL Chauffeur / Promote KONVOI HAVE-it 2011 Chauffeur II ERTICO ULTRA ITS EUROPE









2009-2012



2011

GCDC

2010,2011

PATH: Truck

2013



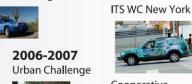














2008

2011 Safety Pilot



Asia-Pacific

1970 Intelligent Vehicle (Japan)



1996 **Automated Highway System** ⇒Advanced Cruise-Assist Highway Systems (Japan)





2005

2008-2012 **Energy ITS** (Japan)



Road User Charging

2000 2013 1980 1986 1989 2000 2003 2005 2007 **Toll Ring** Telepass Liber-t Congestion Charge Truck Toll System Stockholm Congestion Charge (Sweden) (Bergen) (Italy) (France) (London) (Germany) ERTICO Congestion charging
Central
Central
Cone
Hos-fri
7an-6pn ITS EUROPE Europe 1997 407 ETR (Tronto) 1989 1993 1995 2008 Dallas North E-ZPass California State Route Good TO GO! Toll Way (New York) 91 Express Lanes (Washington) **AMERICA** 2006 **Americas** txTag (Texas) SR167 HOT Lane 2000



Asia-Pacific

1993 Autotoll (Hong Kong)



1998 ERP (Singapore)



2000 City Link (Melbourne)



2001 ETC (Japan)



2002 hi-pass (Korea)



2008 ETC (Beijing)



Traffic Management

1960 1980 2000 2013 1983 1981 2003 2006 2009 SCOOT Variable Speed Limit Traffic Control DATEX II Dynamic hard shoulder (UK) (on motorways in the Netherlands, France, Center Berlin Traffic data exchange (on motorways in the Netherlands, France, Germany, Italy, UK) protocol (Europe) (Germany) ERTICO Germany, Italy, UK) Europe Typical SCOOT-based





1963

SCATS

(Australia)

1971



Ramp metering

TEL Intech SIEMENS O Transport

UTC System

1963









2005





2010

motorway (Australia)

Fully managed

Management

2000

Traffic



Traffic Control Center (Japan)

1988

Green Link Determining

1995 Integrated Traffic System :GLIDE (Singapore) Control Center (Japan)







Transport Management

Center (Malaysia)

2008 ITMC Beijing Intelligent Traffic Management Center(China)



2009 National Highway Management System (China)



1993 Freeway Traffic Management System (Korea)



Traffic Information

2013 1980 2000



Europe

1988 Trafficmaster London (UK)



1991

107.7 Traffic info Radio (France)



1998

Journey time info on VMS (Europe)



1998

TMC Service Traffic Message Channel (Europe)



2011

Probe Data (Europe)



Service (Europe)

TPEG Broadcast

2011



NAVTEO TRAFFIC



Early 1990's SmarTravelers

Travel Info

1992

TravTek Field **Operational Test**



1996

OnStar





2005

Huston TranStar







Asia-Pacific

1995 VICS Service

(Japan)

1995



Travel times provided

to the public (Australia)

1998

Auto manufacturers' **Telematics** Service (Japan)



Premium Club CAR WINGS

1999

TrafficScan (Singapore)



Taxi probe

2005

Integrated Transport Information System (ITIS) (Malaysia)



2005 VMS system (China)

2006

2008

TPEG Broadcast RTIC service (Korea) (China)



2011 Data Mall (Singapore)







