

# Road Signage for Natural Gas and LPG Fuelling Stations

Requesting to Amend  
the Convention on Road Signs and Signals

International Association for NGVs (IANGV)

&

European Association for LPG (AEGPL)

24 March 2009

United Nations, Geneva

Working Party on Road Traffic Safety (WP1)





# **THE ORIGINAL REQUEST TO DEVELOP CNG SIGNAGE**

## **ROAD SIGNAGE FOR CNG FUELLING STATIONS**

**Presentation to the United Nations  
Working Party on Road Traffic Safety**

**April 2004 Dr. Jeffrey M. Seisler**

**Executive Director**

**ENGVA**

**NGVs**

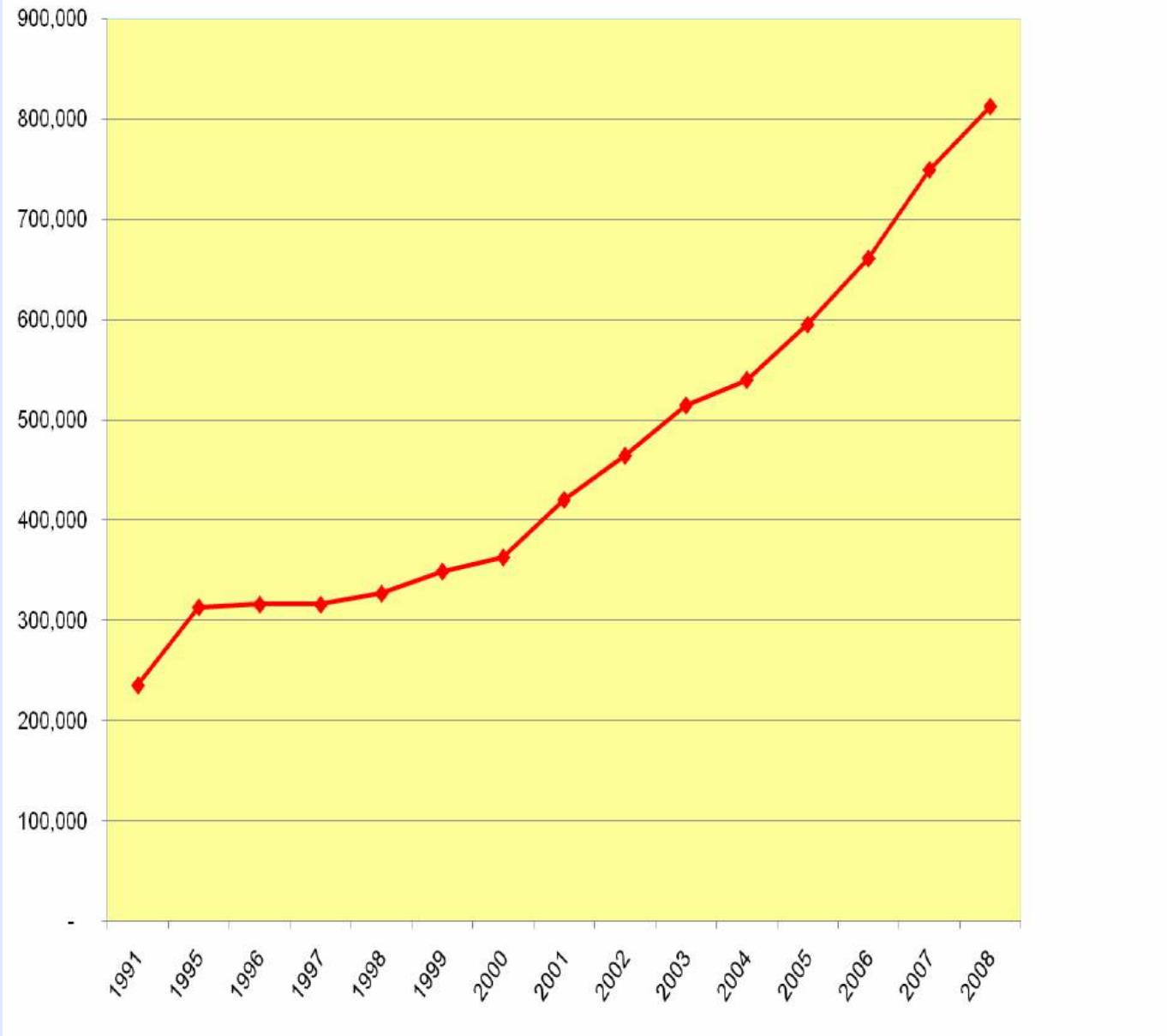
**Where they were....**

**Where they are....**

**&**

**Where they are going**

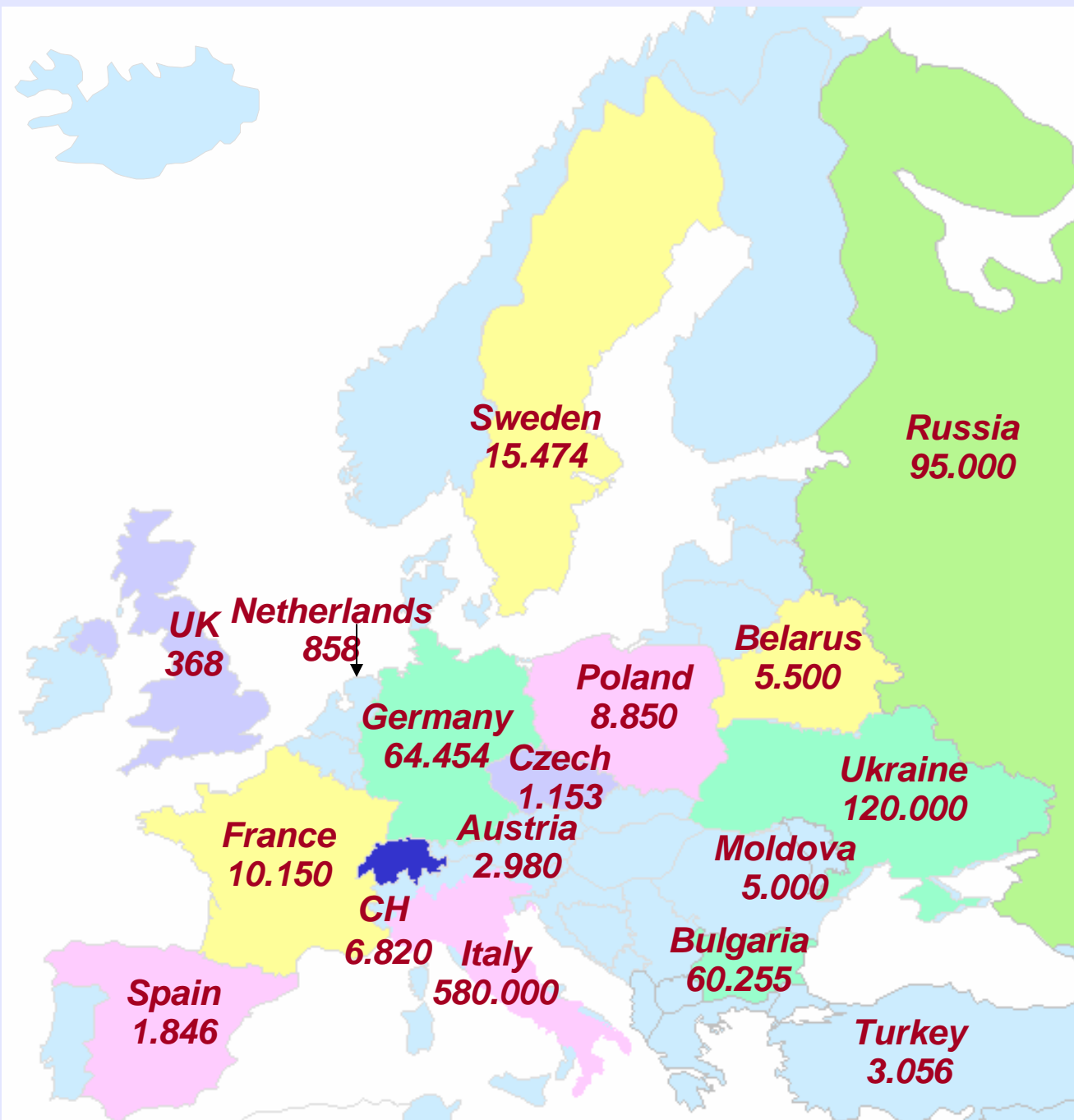
# European NGV Growth 1991-2008



**Europe Total**  
~ 957.316  
**NGVs**  
**Refuelling**  
**Stations**  
~ 3,000



Data source: The  
GVR,  
November 2008



**NGV**  
**STATIONS**




# NGVs IN THE WORLD

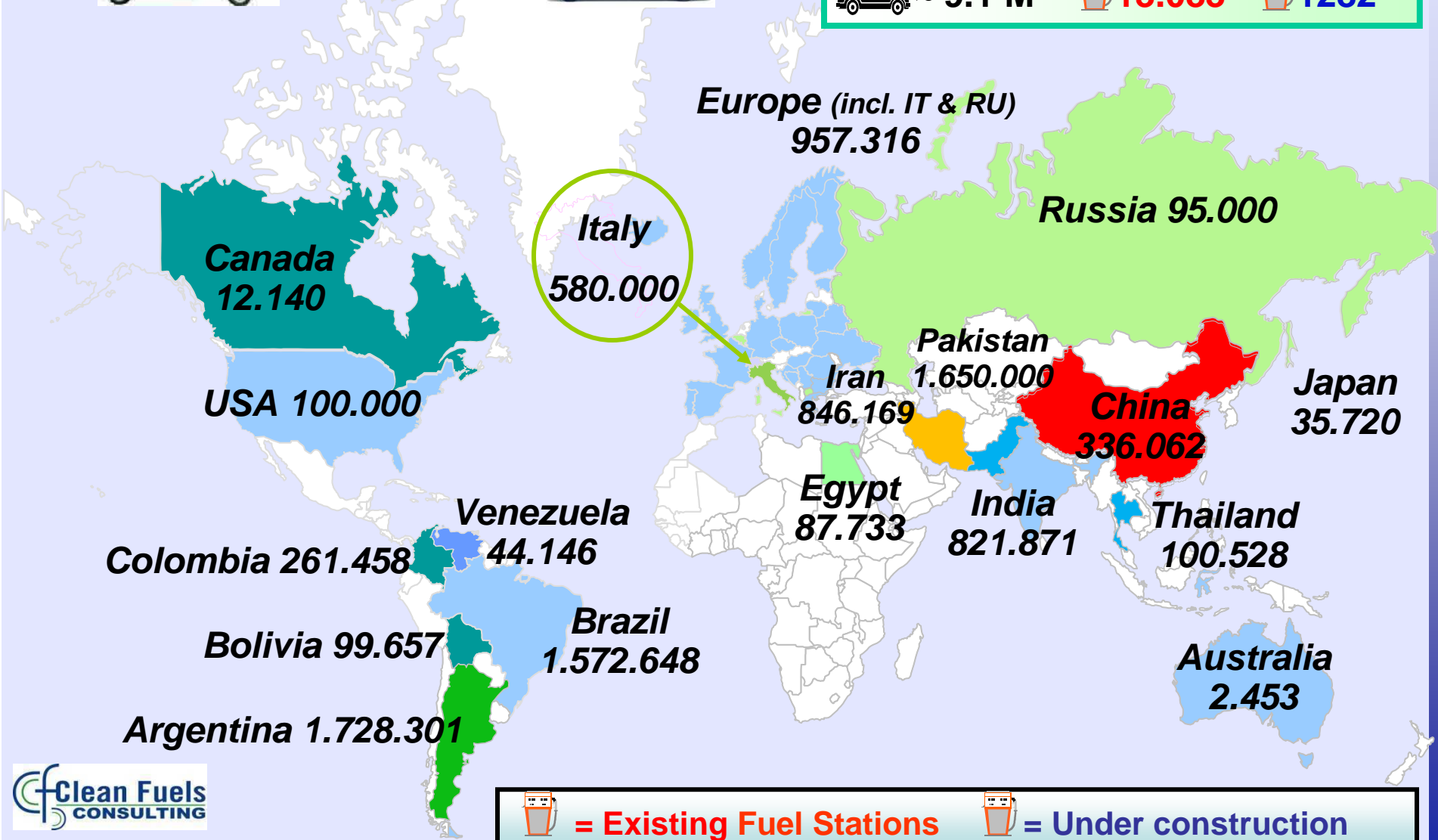


**2008**



**World Total**

 ~ 9.1 M
  **13.083**
 **1282**



Data source: The GVR, November 2008

 = Existing Fuel Stations
  = Under construction

# GROWTH RATES 2006-2007

January 2008

	2006	2007	%
<b>WORLD</b>	4.6 Million	7.55 Million	64%
<b>CHINA</b>	97,200	200,873	107%
<b>BRAZIL</b>	1 Million	1.48 Million	48%
<b>EUROPE</b>	556,000	748,749	35%
<b>UKRAINE</b>	67,000	100,000	49%
<b>ITALY</b>	382,000	432,900	13%

# GROWTH RATES 2006-2007

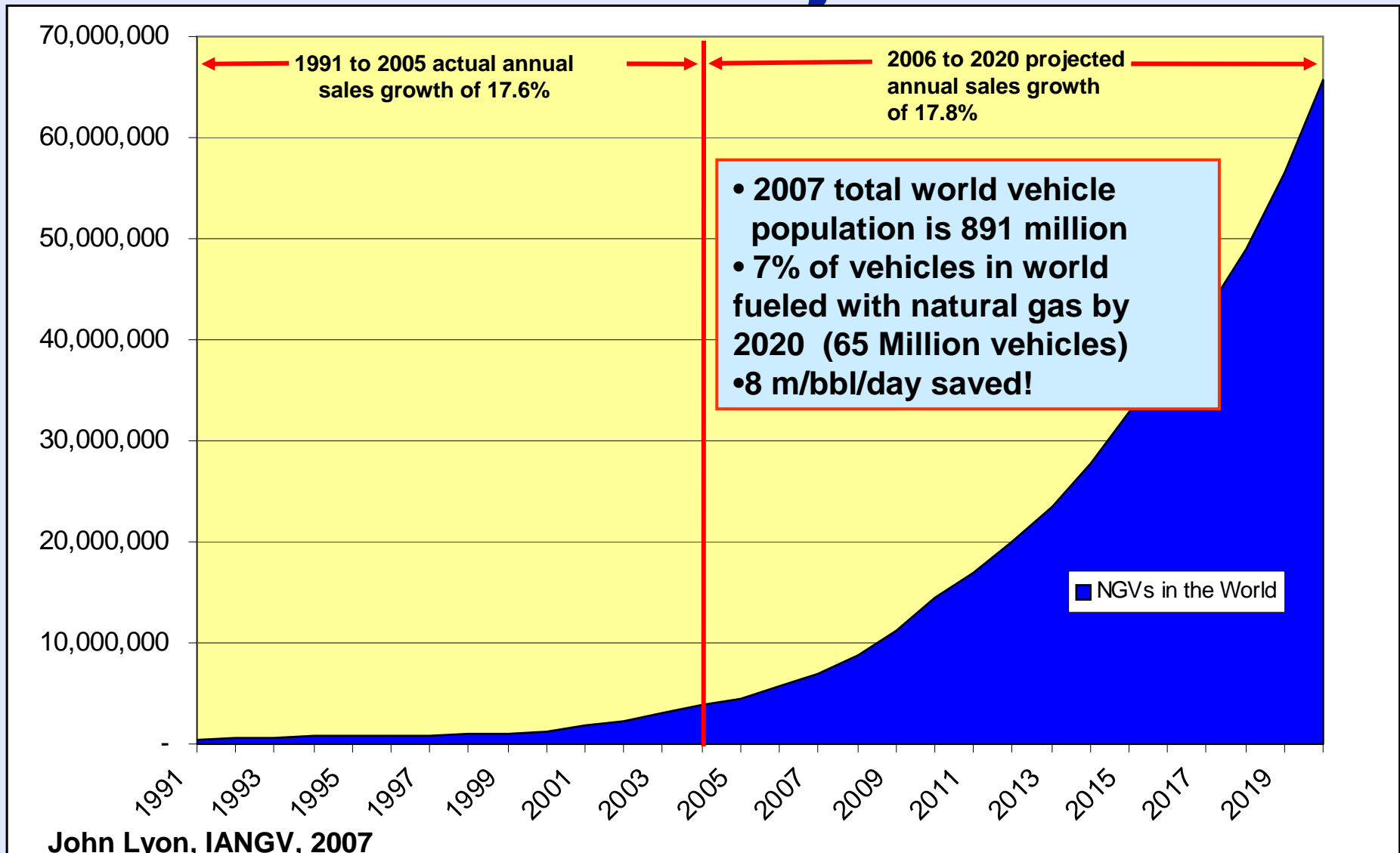
January 2008

	2006	2007	%
<b>ARGENTINA</b>	1.42 Million	1.67 Million	17%
<b>PAKISTAN</b>	1 Million	1.65 Million	65%
<b>INDIA</b>	248,000	334,820	35%
<b>BANGLADESH</b>	50,534	80,000	58%

Source: GVR Dec. 2007



# World Wide NGV Growth Actual/Projected



# **LPG/AUTOGAS**

**Where they were....Where they are**

# Seven Years of Success and Growth for Autogas (LPG) 2000-2007

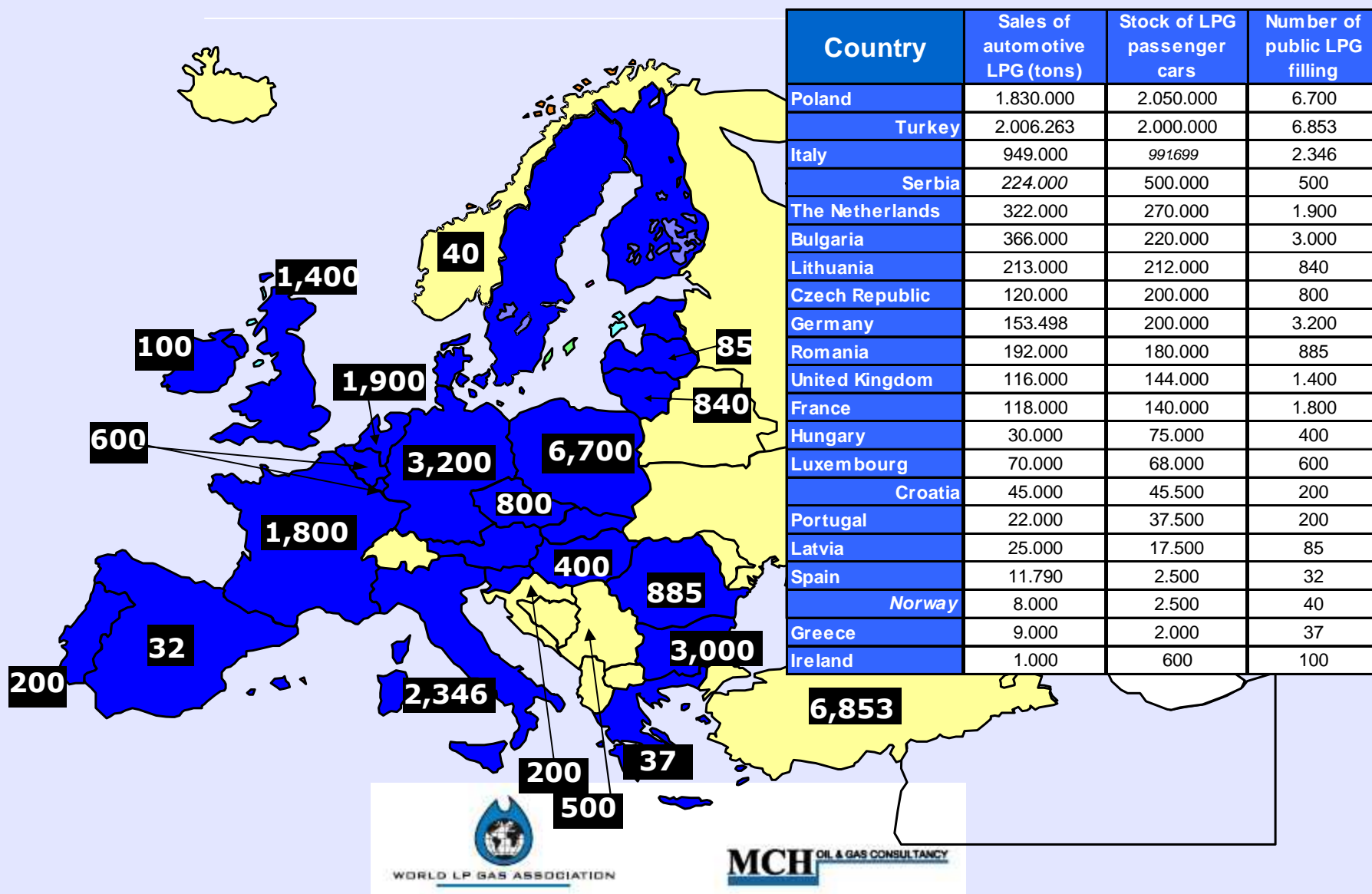
Year	Million Tonnes	% Variation	Number of Vehicles (millions)	% Variation	Number of Dispensing Sites (thousands)	% Variation
2000	14,4		7,5		29	
2001	15,4	7%	8,4	12%	32	10%
2002	15,9	3%	8,9	6%	37	16%
2003	16,4	3%	9,4	6%	40	8%
<b>2004</b>	<b>17,1</b>	<b>4%</b>	<b>10,3</b>	<b>10%</b>	<b>40</b>	<b>0%</b>
2005	18,0	5%	11,3	10%	42	5%
2006	19,3	7%	12,4	10%	48	14%
<b>2007</b>	<b>20,4</b>	<b>6%</b>	<b>13,3</b>	<b>7%</b>	<b>52</b>	<b>8%</b>
<b>Average Growth:</b>		<b>5%</b>		<b>9%</b>		<b>9%</b>

Beginning 21<sup>st</sup> Century:

- Autogas consumption has been growing steadily
- The number of vehicles and the number of dispensing sites also
- Autogas consumption has been growing faster than other usages: domestic, industry, agriculture

# LPG/Autogas fuelling stations in 2007 in Europe

(only figures above 30 are mentioned)

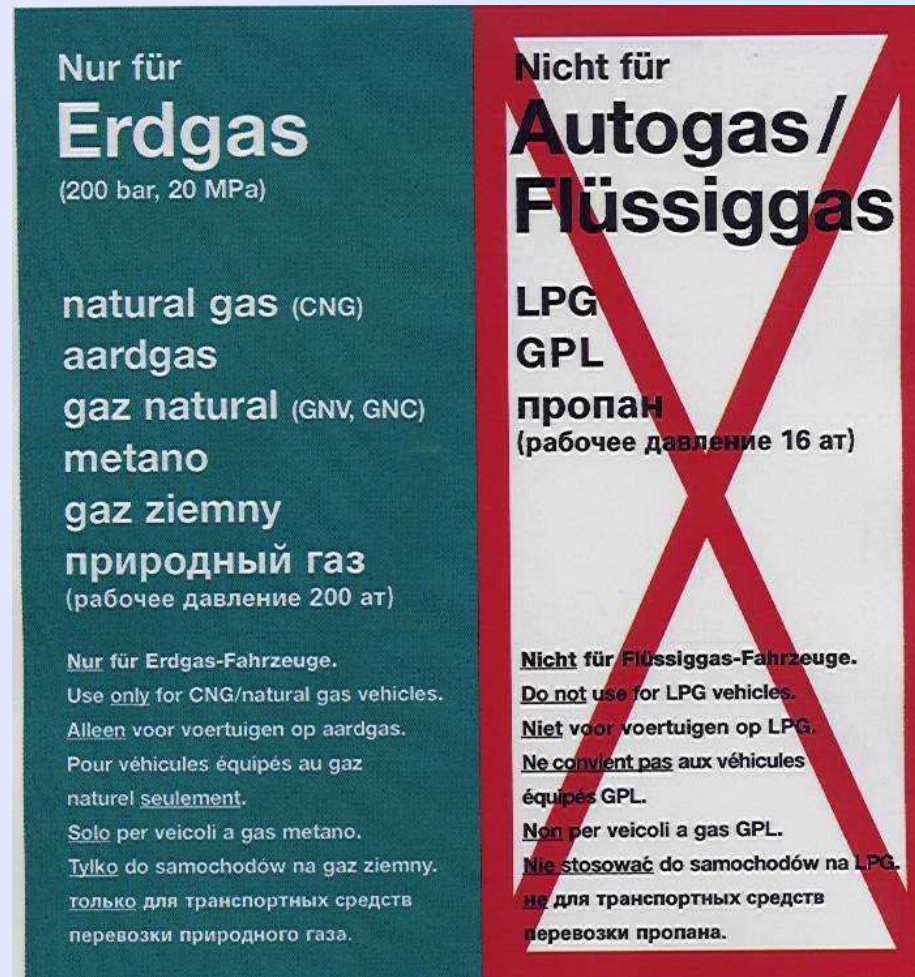


# CNG & LPG Fuel Station Signage

- Achieved Consolidated Resolution status in 2006
- Growth of CNG and LPG as alternative fuels has been strong and likely will improve in upcoming years
- Problem: Despite our collective success:
  - People generally don't know vehicles can run on LPG or CNG
  - People often are confused about the difference between the two fuels

# Warning Signs Germany:

## LPG is **NOT** CNG



# Warning Signs Switzerland: LPG is **NOT** CNG

<b>ERDGAS</b> - • TANKSTELLE • FAHRZEUGE	<b>GAZ NATUREL</b> - • STATION DE RAVITAILLEMENT • VÉHICULES	<b>GAS METANO</b> - • STAZIONE DI RIFORMIMENTO • AUTOVEICOLO	<b>NATURAL GAS</b> - • FILLING STATION • VEHICLES
 <p>Flüssiggas (LPG)</p>	 <p>gaz liquéfié (GPL)</p>	 <p>gas liquido Autogas (GPL)</p>	 <p>liquefied gas (LPG)</p>
 <p>fremde Passstücke</p>	 <p>raccords intermédiaires inadaptés</p>	 <p>raccordi inadatti</p>	 <p>Not Authorized Adapters</p>

# SAFETY IS THE INDUSTRY'S PRINCIPLE CONCERN!!!!

Refuelling stations:

CNG is NOT AutoGas (LPG)!



**CNG was put into an LPG car with  
disastrous results, Recklinghausen,  
Germany July 2000**



# SAFETY IS THE INDUSTRY'S PRINCIPLE CONCERN!!!!

Refuelling stations:

CNG is NOT AutoGas (LPG)!



**CNG was put into an LPG car with  
disastrous results, Cairo, February  
2000**

# Objectives for Being Part of the Convention

- Help clarify the difference in the fuels (*safety a primary concern!!*) LPG is **NOT** CNG.
- Help legitimize the gaseous fuels not just as **alternative fuels** but as *fuel alternatives* to petrol and diesel into the future.
- Helps legitimize related government policies for clean air, reduced global warming, and energy security as the networks for CNG and LPG continue to grow.

# Convention on Road Signs and Signals

## Annex I/Section F/II.F.4 (add F.4.1/F.4.2)

### Section F

#### INFORMATION, FACILITIES OR SERVICE SIGNS

##### I. General characteristics and symbols

1. "F" signs shall have a blue or green ground; they shall bear a white or yellow rectangle on which the symbol shall be displayed.

2. On the blue or green band at the bottom of the sign, the distance to the facility indicated, or to the entry to the road leading to it, may be inscribed in white; on the sign bearing symbol F, 5 the word "HOTEL" or "MOTEL" may be inscribed in the same way. The signs may also be set up at the entry to the road leading to the facility and may then bear a white directional arrow on the blue or green part at the bottom.

The symbol shall be black or dark blue, except symbols F, 1<sup>a</sup>, F, 1<sup>b</sup>, F, 1<sup>c</sup> and F, 15, which shall be red. The symbol F, 14 may be red.

##### II. Descriptions

###### 1. "FIRST-AID STATION" symbol<sup>29</sup>

The symbols depicting first-aid stations in the States concerned shall be used. These symbols shall be red. Examples of these symbols are F, 1<sup>a</sup>, F, 1<sup>b</sup> and F, 1<sup>c</sup>.

###### 2. Miscellaneous symbols

F, 2 "BREAKDOWN SERVICE"

F, 3 "TELEPHONE"

F, 4 "FILLING STATION"

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