



# Thierry Morin

Chairman & CEO

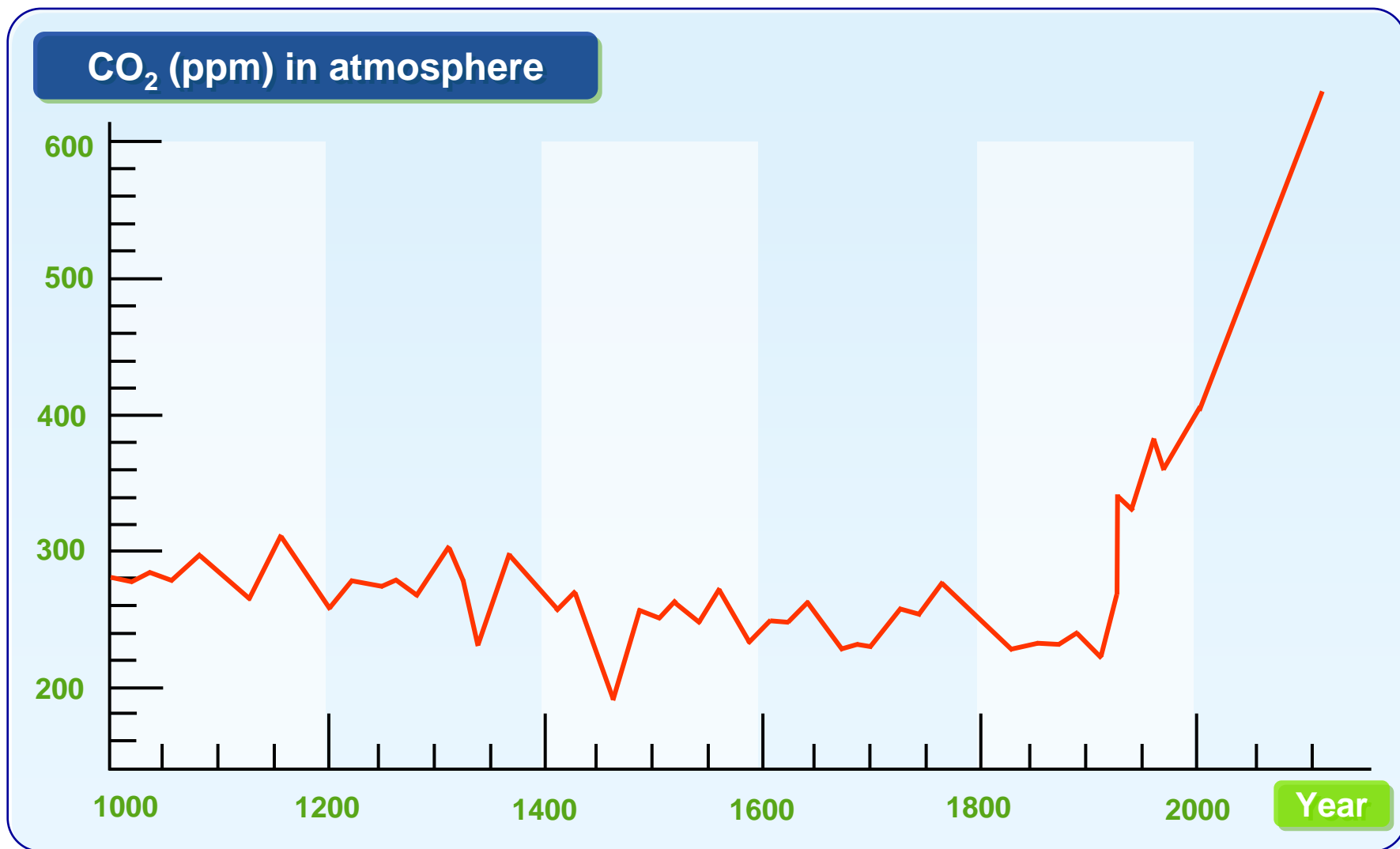
3 October 2008

# Reconciling cars and society



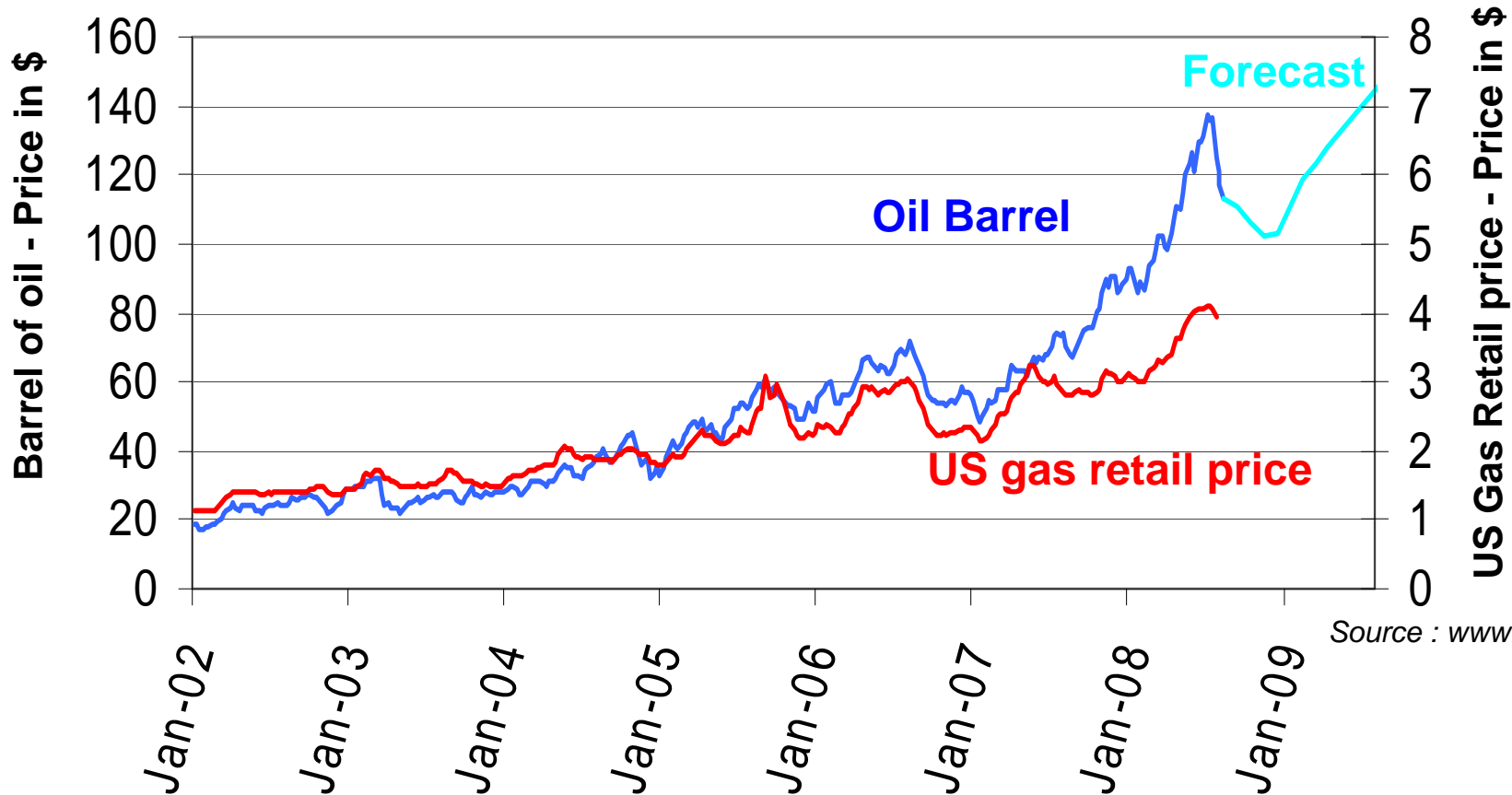
- **ZERO pollution**
- **ZERO accident**
- **ZERO stress**

# CO<sub>2</sub> Emissions set to grow dramatically



Source: Intergovernmental Panel on Climate Change

# Gas Price trend & forecast



Source : [www.oil-price.net](http://www.oil-price.net)

What does it mean for the end user ?

# Impact on consumer behavior

## ■ French « bonus malus »

- Sale of vehicles emitting less than 130g/CO2 up 40%
- Sales of vehicles emitting more than 160g/CO2 down 25%

## ■ Market drop in US

## ■ Above \$180/barrel or more than 2€/liter = Revolution\*

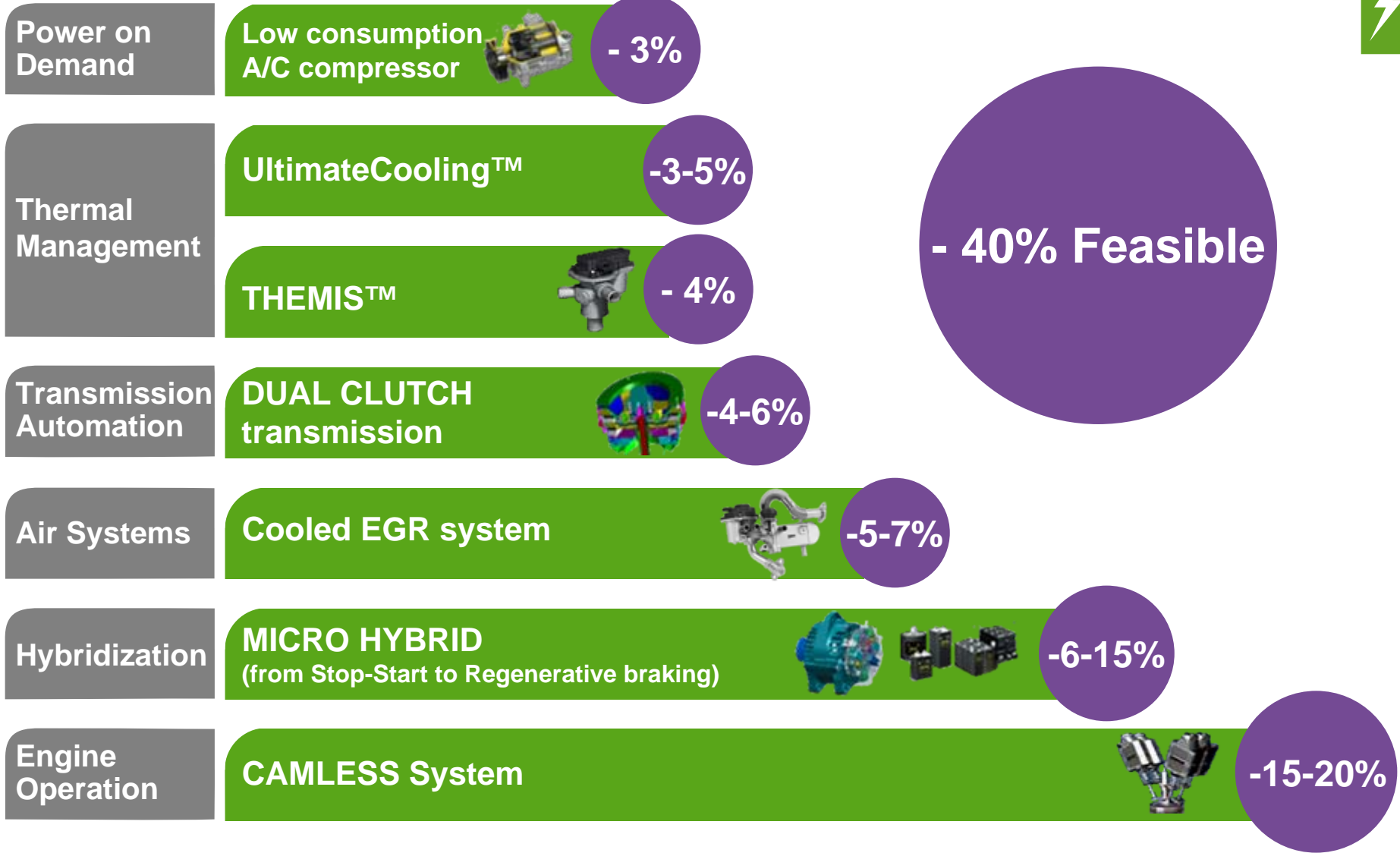
- Major shift from C/D segments to A/B segments
- US market significant drop and China growth halves

*\*Source : Arthur D Little based on 2012 market projection*

# Industry answers

- **Engine Efficiency and downsizing**
- **Hybridization and energy recovery**
- **Alternative fuels**
- **Electrical vehicles**

# Valeo Fuel Economy solutions portfolio



# Hybridization Roadmap



-100%

-25%

-15%  
MILD  
HYBRID

-12%

-25%

-12%

-6%

FULL HYBRID  
And PLUG-INS

MICRO - MILD  
HYBRID  
with Ultracapacitors

StARS  
MICRO-HYBRID

*Full Electric Drive*

*Part Electric Drive*

*Torque Assistance*

*Regenerative Braking*

*Stop & Start*



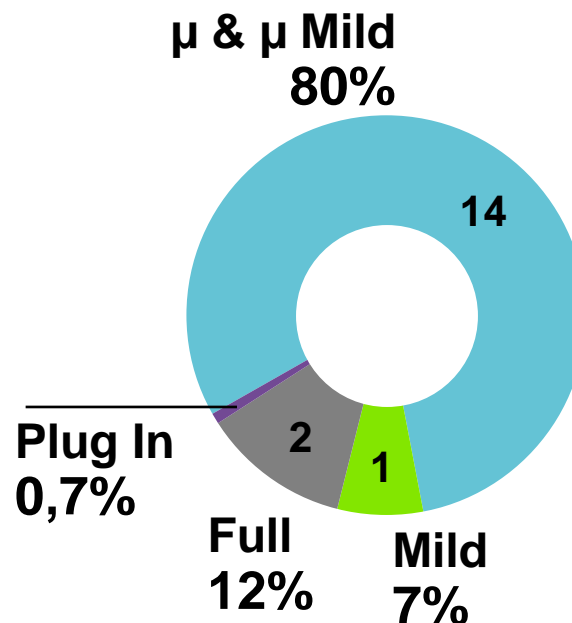
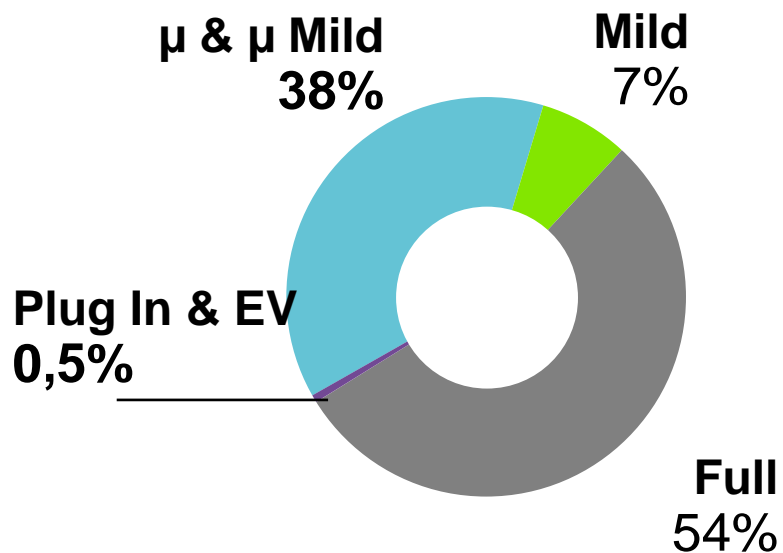
Stop-Start : hybridization basis for mass production affordable solution

# Hybrid market vision



2008 – 1.1 M vehicles

2013 – 17 M Vehicles



Boom in market to comply with European 2012 legislation

# Towards zero accidents



- **Legislation/repressive measures**
- **Infrastructure**
- **Driver behavior**
- **Technology**

# Safety technology drivers



## ■ Automation of functions to reduce driver distraction

→ Lighting, wiping automation

## ■ Improve visibility

→ Xenon, beamatic, infra red night vision

## ■ Inform the driver of what he can't see

→ Lane departure warning, blind spot detection, ParkVue, 360°Vue

## ■ Intervene to take control of car

→ Park4U

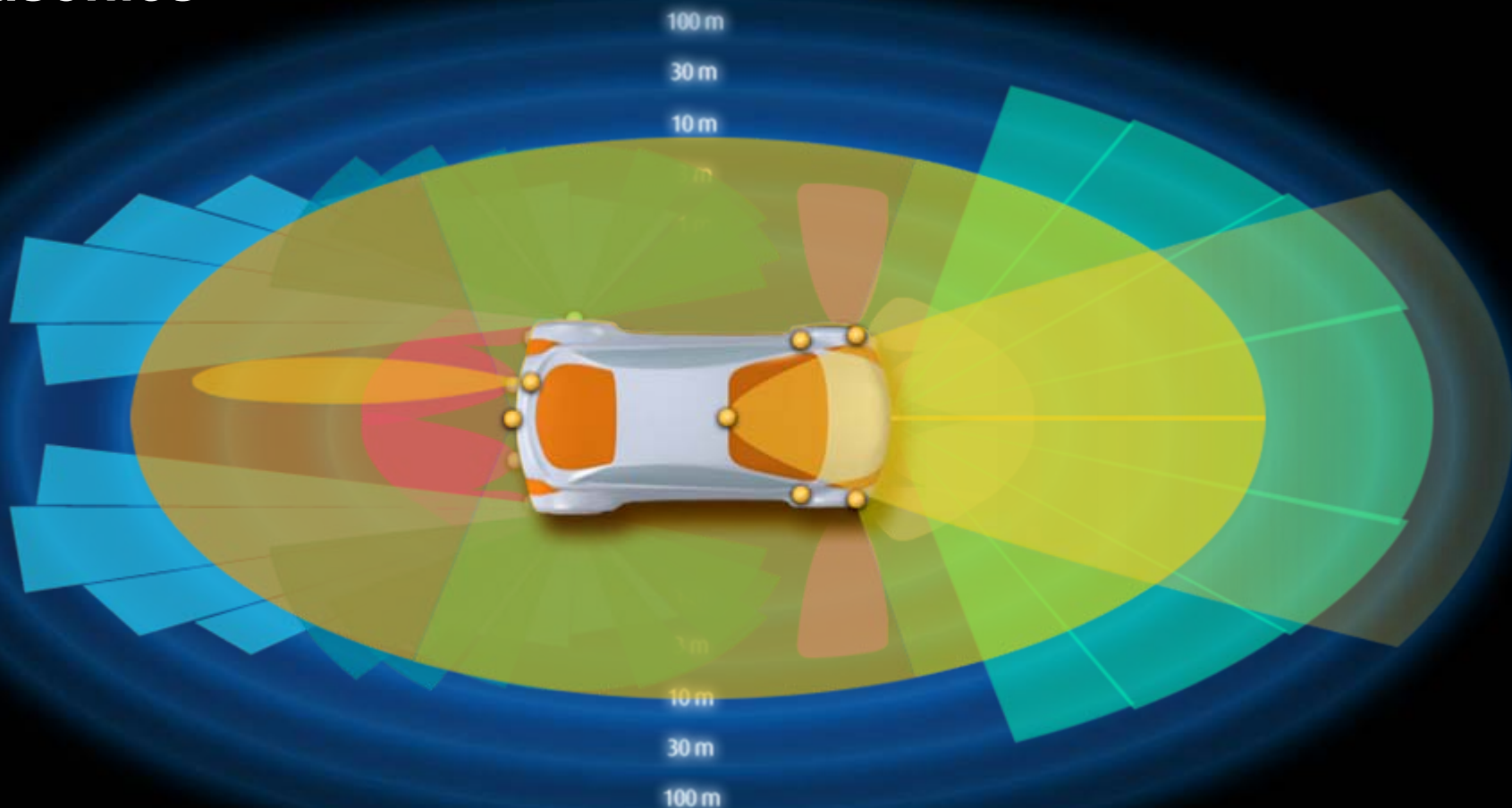
## ■ Pedestrian protection

→ Safe4U

# Driving Assistance Main Sensing Technologies

Ultrasonics

Radar



Cameras

# Intelligent lighting systems





# From information to intervention

- Automatic parking
- Lane keeping
- Speed control
- Automatic braking
- .....the car that drives itself



**What will we accept?**

# Zero Stress



## ■ Personalised comfort

- Air conditioning
- Air quality
- Smart car key

## ■ Reduce distraction through easy to use interface

- Head up displays
- Virtual environments

## ■ Secured and automated access

- Automatic opening and closure

**Convenience & well being**

# Reconciling cars and society



- **ZERO pollution**
- **ZERO accident**
- **ZERO stress**



*Enabling a better automotive world*