

# The challenges of road safety today

Doctor Jean-Yves LE COZ – Associated Professor Arts & Métiers ParisTech GRSP Chairman (Global Road Safety Partnership) Expert Leader « Road Safety » Renault Group







## **Outline**

01 a point of History ... - 2014

02 a Global Issue

03 a Holistic Approach

**04** Results

05 Conclusion







The first Automobile Fatality: Mary Ward, an artist and a naturalist.

She died on a steam Carriage, which jolted on a corner and threw her occupant from her seat

This happened in 1869!

It would have not happened if she had buckled a safety belt, invented in... 1903











 The engine accelerator pedal should be located at a sufficient distance from the brake pedal to minimize danger of applying the accelerator when intending to actuate the foot brake.....













• .... The question of mirror design and location for purposes or rear view should be studied.....

 ... A study of the use of bumpers as a safety device should be undertaken in the next future













These statements are extracted from ...

The First National Conference on Street and Highway Safety, Washington, DC, December 1924

















# A GLOBAL ISSUE



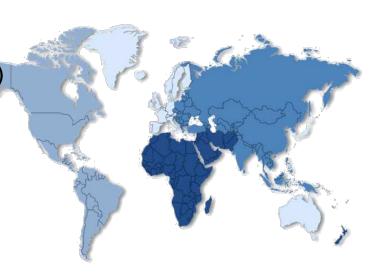




#### **Facts and Figures**

- 1.3 million fatalities each year (Source: WHO)
- 50 millions injured





#### January 12, 2010 – Haïti

230 000 fatalities
 70 days

300 000 injured
 2 days

1.2 million homeless





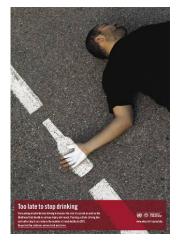


#### Leading cause of death in the world

- 9<sup>th</sup> leading cause of death in 2004
- 3<sup>rd</sup> leading cause of death in 2020
- 5<sup>th</sup> leading cause of death in 2030

Rank	Disease 2004		
1	Ischaemic Heart Disease		
2	Cerebrovascular Disease		
3	Lower Respiratory Infections		
4	Chronic Obstructive Pulmonary Disease		
5	Diarrhoeal Diseases		
6	HIV		
7	Tuberculosis		
8	Trachea / Lungs Cancers		
9	Road Traffic Fatalities		
10	Perinatal Conditions		

Rank	Disease 2030		
1	Ischaemic Heart Disease		
2	Cerebrovascular Disease		
3	Chronic Obstructive Pulmonary Disease		
4	Lower Respiratiry Infections		
5	Road Traffic Fatalities		
6	Trachea / Lungs Cancers		
7	Diabetes		
8	Hypertensive Heart Disease		
9	Stomac Cancer		
10	HIV		





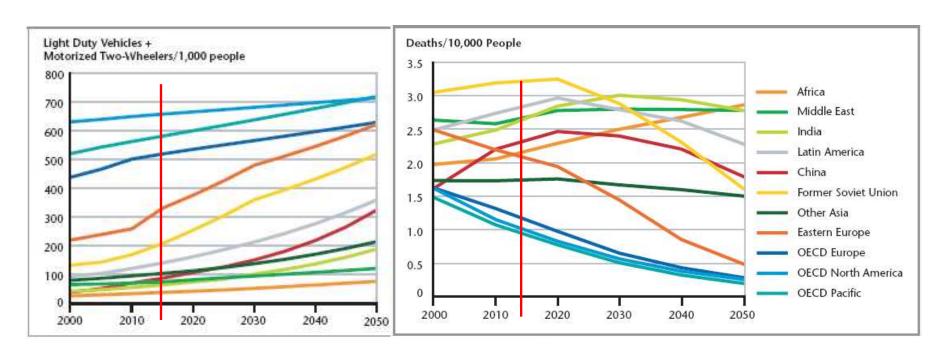




#### Facts and Figures

- 90% of deaths in countries with low / middle income
  - 48% of vehicles
- 50% of fatalities are vulnerable road users





Source: WBCSD Sustainable Mobility Project





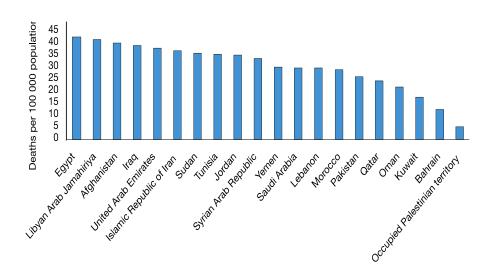






## Middle East North Africa Region: a snapshot

- Leading cause of death for 15-29 age group
- Second-leading cause of death among the 5–14 and 30–44 year age groups











# A HOLISTIC APPROACH







#### A HOLISTIC APPROACH



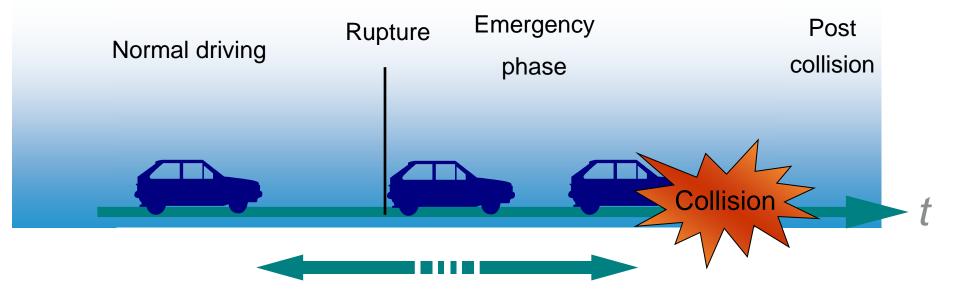








CT RESCUE









#### **Haddon Matrix**



	Human Being	Machine	Environment
Pre-event	PATOLINA DE LA CONTRACTION DEL CONTRACTION DE LA	Afficheur Independent de bod Capteurs Gerpresson	FOLICE
Event			
Post-event	First Add Kit	2.	

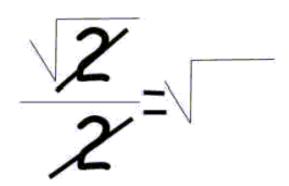


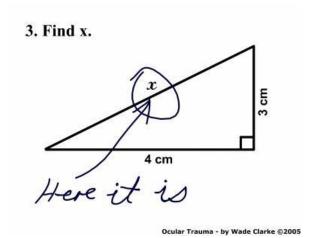




# 04

# Results

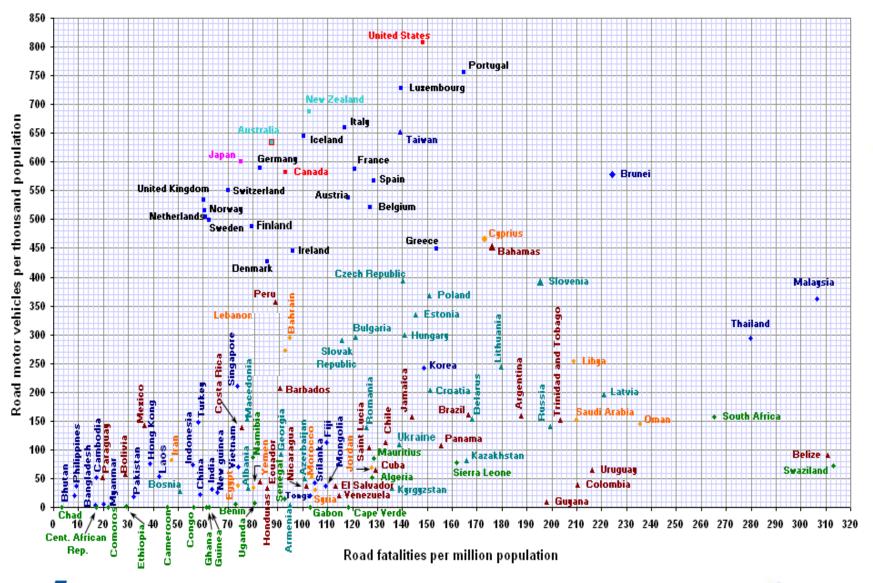










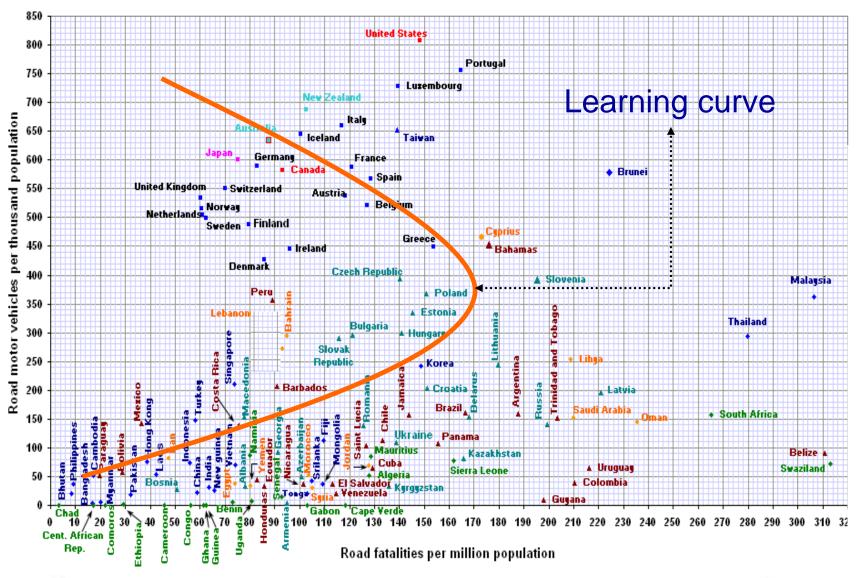


















#### Pillar 1 – Road safety management

Establish a lead agency
Develop a national strategy
Set realistic long-term targets
Ensure sufficient funding
Establish and support data systems

#### Pillar 2 – Safer roads and mobility

Promote road safety ownership and accountability Promote road users needs in sustainable urban planning Promote safe operation, maintenance and improvement of existing road infrastructure Promote development of safe new infrastructures Encourage capacity building and knowledge transfer Encourage R&D in safer roads

#### Pillar 3 – Safer vehicles

Encourage application of vehicle safety regulations
Encourage implementation of NCAPs
Encourage minimum safety features
Encourage deployment of crash avoidance technologies
Encourage fiscal incentives for safe vehicles
Encourage application of VRU protection regulations
Encourage safe vehicle fleet purchase and maintenance

#### Pillar 4 – Safer road users

Increase awareness of risk factors and prevention measures – social marketing
Set and seek compliance with laws on speed limits; drink-driving; helmets; seat-belts & child restraints; occupational health & safety
Promote comprehensive policies on work-related injuries
Promote graduated driver licensing

#### Pillar 5 – Post crash response

Develop pre-hospital care systems
Develop hospital trauma care systems
Provide early rehabilitation and support
Encourage insurance schemes to finance rehabilitation
Encourage accident investigation
Provide incentives for hire of disabled staff
Encourage R&D into post crash response

#### **Transversal – International coordination**

Encourage increase in funding
High level advocacy for road safety
Increase awareness of risk factors
Provide guidance on road safety management
Improve the quality of data collection

#### A HOLISTIC APPROACH



#### International coordination/ strengthening global architecture

#### National activities

Pillar 1 Road safety management

Pillar 2 Infrastructure

Pillar 3 Safe vehicles

Pillar 4 Road user behaviour

Pillar 5 Post crash care













**RAISE AWARENESS** 

RESCUE



















# **CONCLUSIONS**







### Road safety management based on

- Managers Own Responsibility & making people responsible
- Engagement
- Action







# Managers Own Responsibility & making people responsible

- Recognize value of life
- Recognize that road kills
- Recognize that prevention is each and every duty







## **Engagement**

- Persuade top management of urgency road safety problems
- Persuade colleagues of relevance of safety actions
- Prioritize oneself for safety commitment







#### **Action**

- Do the right thing
- Allocate the right resources
- Evaluate one's prevention actions



















jean-yves.le-coz@renault.com





