

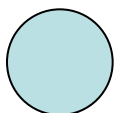
# The shared road to safety - a global approach for safer motorcycling

Side event ITF organized by the International Motorcycle Manufacturers Association IMMA

**Fred Wegman**  
**Professor Traffic Safety**

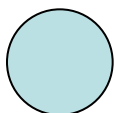
# Starting our discussions on safety of powered two wheelers

- United Nations Decade of Action
  - Halving the number of fatalities (serious injuries?) between 2011-2020 compared with the expected 2020-number
- ITF report: Safety of powered two wheelers (2014)
  - State of the art report
- IMMA report: The shared road to safety (2014)
  - Position paper of motorcycle manufacturers



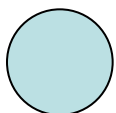
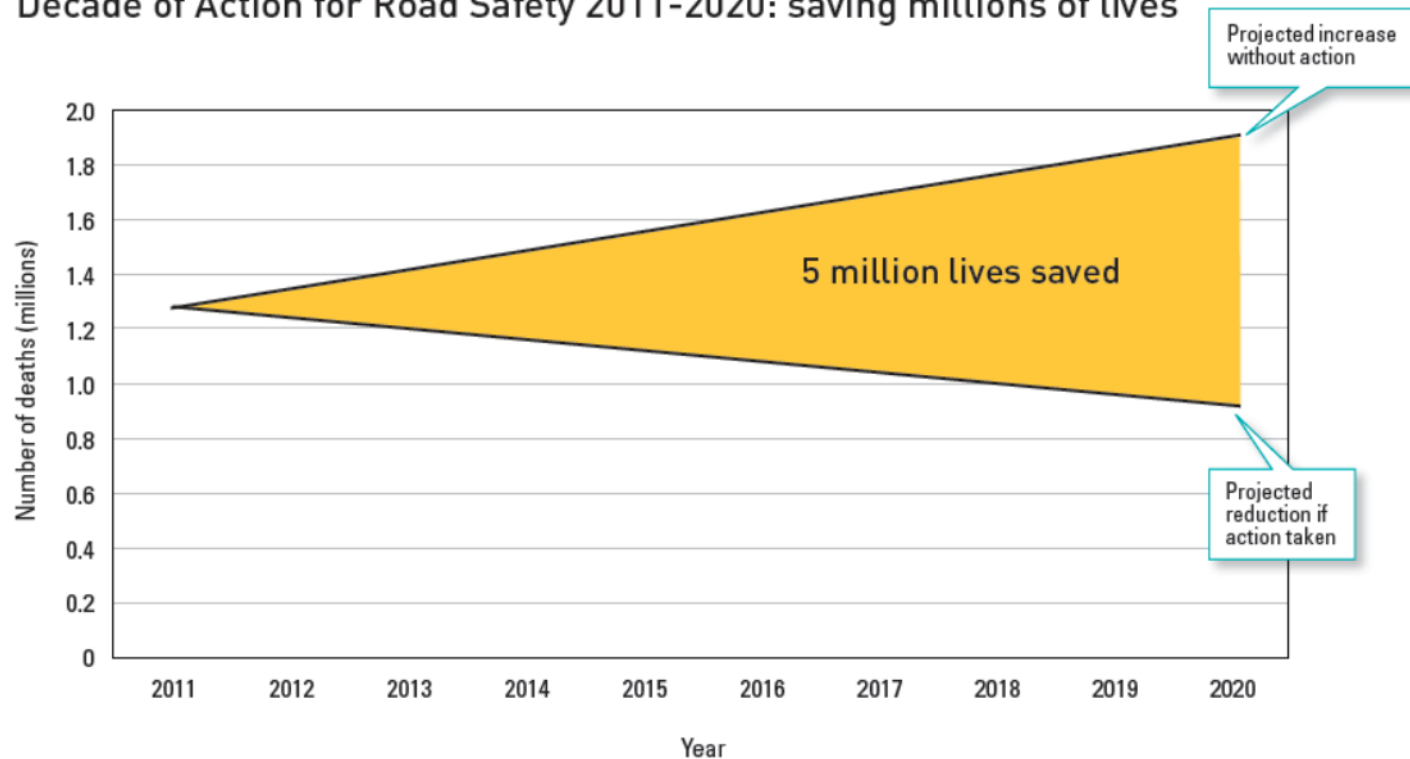
# Powered two wheelers

- PTW: mopeds, motorcycles and scooters
- > 300 million PTW in the world, three quarter in Asia, 15% in the US/Europe, 5% in Latin America, few percent on other continents
- Distinction being made between OECD-countries and emerging economies
- Diversity of PTWs and riders
- The role of PTW in road transport



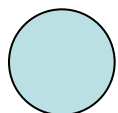
# Target: 'halving number of fatalities worldwide in 10 years time'

Decade of Action for Road Safety 2011-2020: saving millions of lives



# Challenges ahead for safety of PTW's

- A growth in the fleet and the usage of PTW is to be expected in the world, with high annual increases in some regions (e.g. Asia, Latin America)
- We observe a diversity of PTW's and its riders, suggesting a tailored problem analysis and strategies to improve safety
- "PTW users are confronted with far more higher risk than car drivers"
- "It is the kinetic energy in a crash and the vulnerability of the human body"



# Dimensions for Traffic Safety

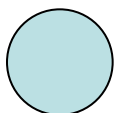
- Three dimensions:
  - Exposure E (kilometres travelled)
  - Crash rates C/E (crashes per unit of exposure)
  - Injury rates I/C (injuries per crash)

$$\bullet \mathbf{I = E \times C/E \times I/C}$$

- If we write the same math expression for fatalities

$$\bullet \mathbf{F = E \times F/E}$$

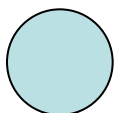
- In words: Fatalities = Exposure times Risk



# How to reduce risks of PTW's?

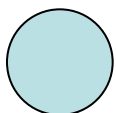
- Road user behaviour
- Personal protective equipment
- Vehicles
- Infrastructure and traffic management
- Integrated road safety strategy

<b>Pillar 1</b>	<b>Pillar 2</b>	<b>Pillar 3</b>	<b>Pillar 4</b>	<b>Pillar 5</b>
<b>Road safety management</b>	<b>Safer roads and mobility</b>	<b>Safer vehicles</b>	<b>Safer road users</b>	<b>Post-crash response</b>



$$I = E \times C / E \times I / C$$

- Do we have enough countermeasures in our toolbox to compensate for the anticipated increase in exposure in order to reduce the number of casualties in road crashes and to make a contribution to the Decade of Action target?
- Which priorities to set?
- Which stakeholders could and should act?





# How to include PTW-safety in a Safe System approach?

- ITF-report: “growing PTW makes it imperative to adopt safety interventions targeting this mode of traffic, while integrating it into a Safe System”

