



THE RAINVISION PROJECT

**Influence of the performance of road markings on driver behaviour
Wet Night Visibility**

General Overview

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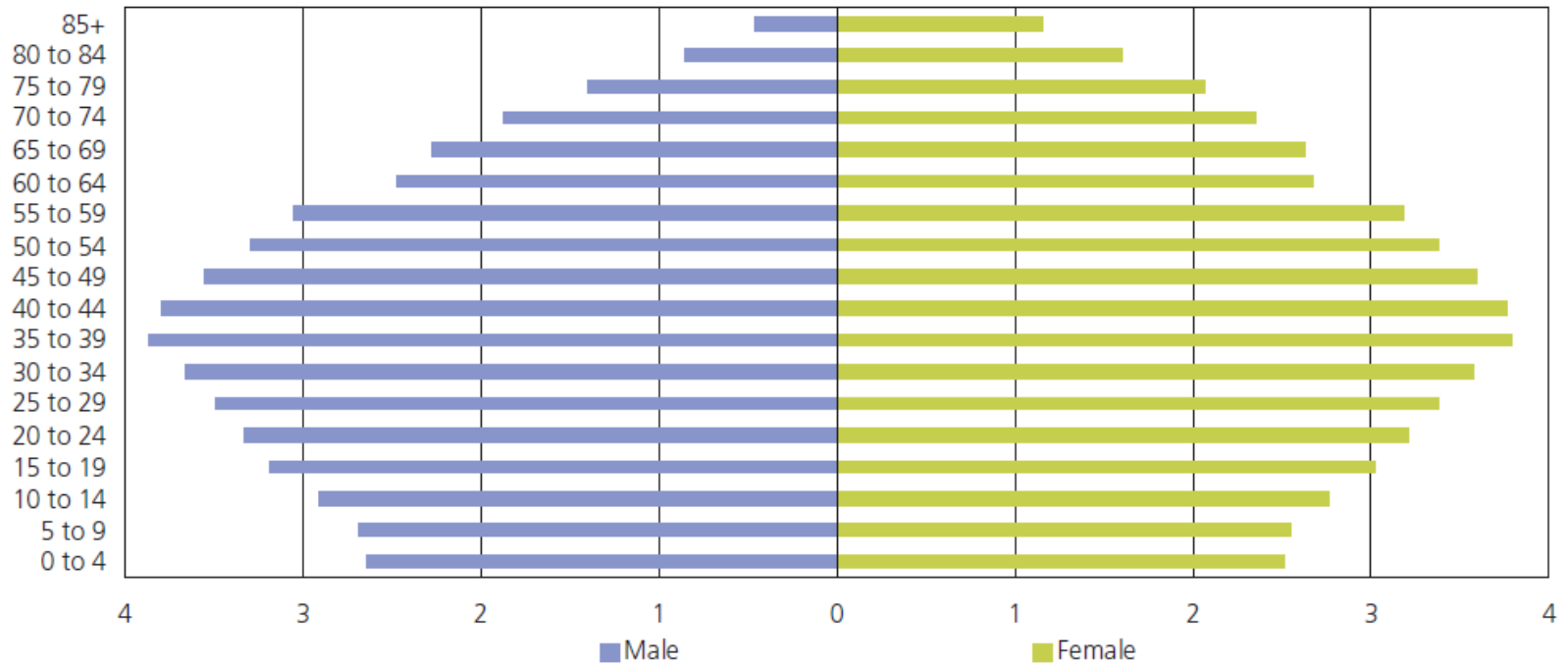
RAINVISION – The context Road markings and safety

- **Previous European research and studies (COST 331 and Improver) confirmed that road markings are essential for driver comfort during dry night time conditions**
- **Need for research on wet / wet and rainy conditions**

RAINVISION – The context

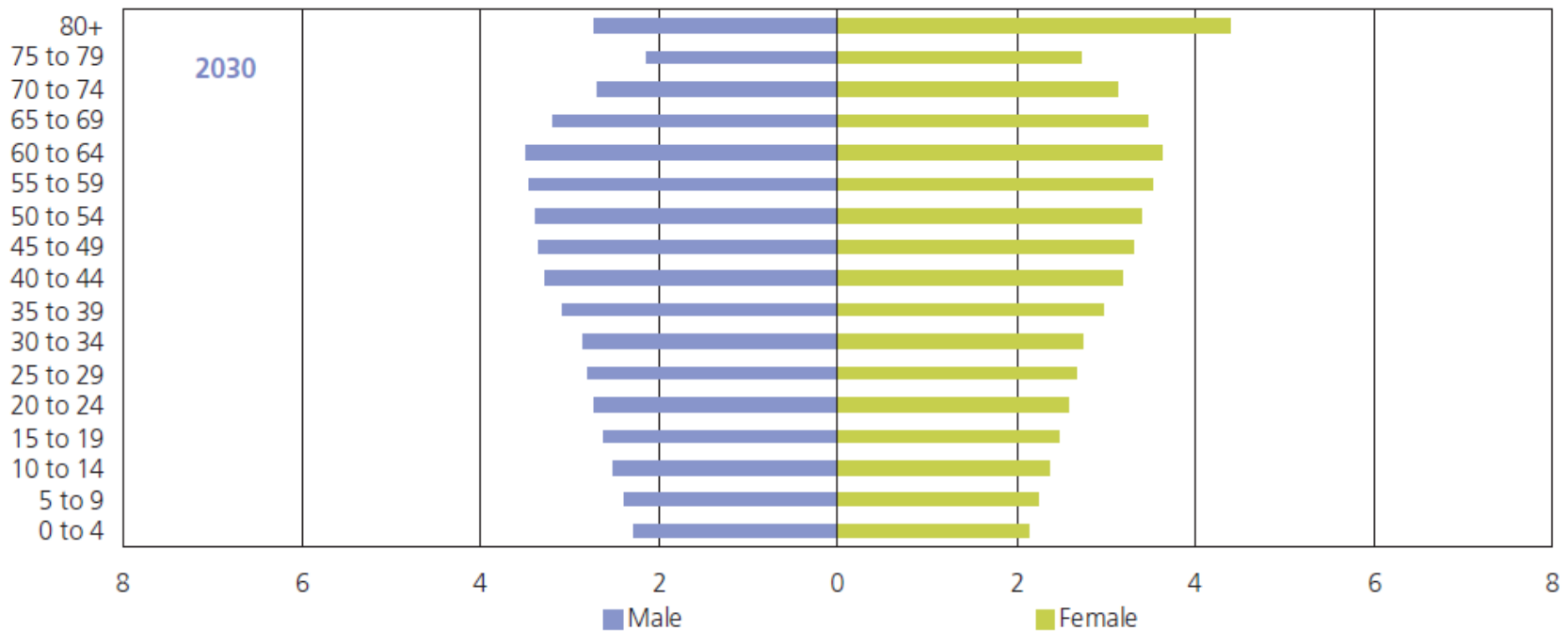
An ageing population

Figure SP.8: Age pyramid, EU-27, 2005
(% of total population)



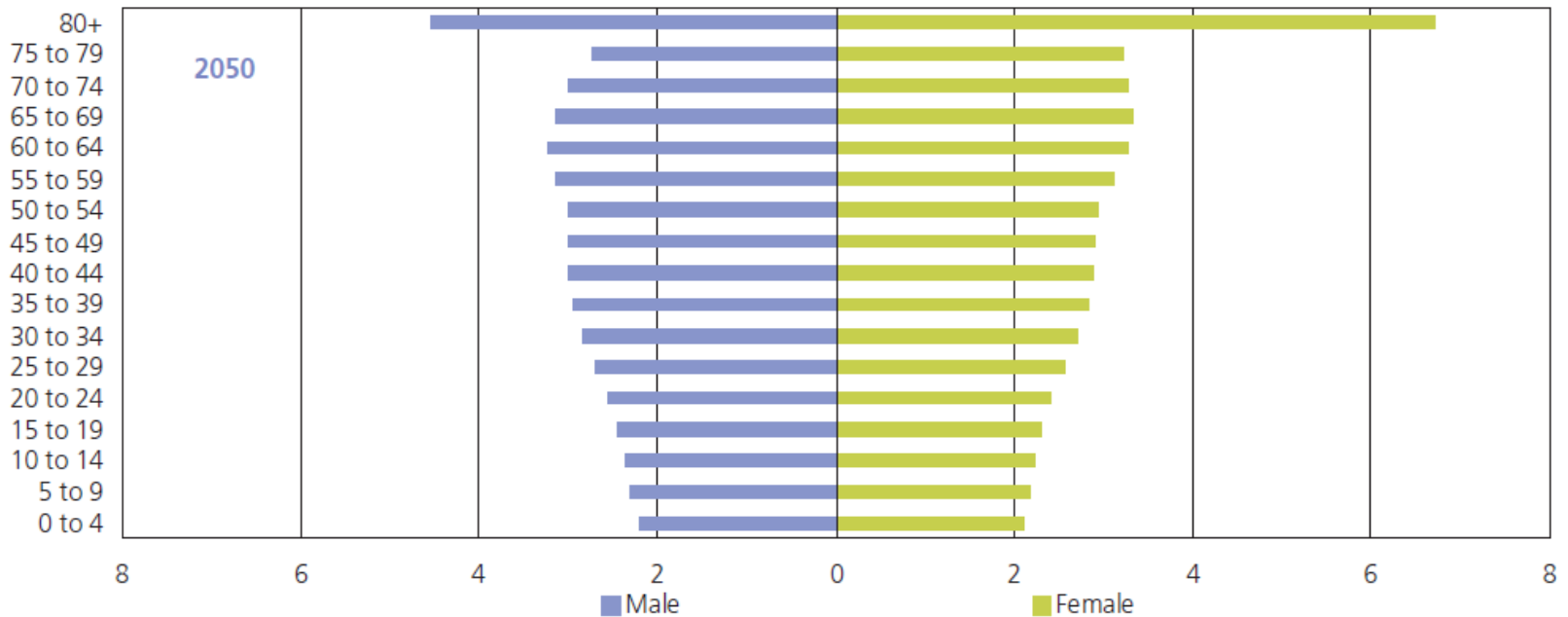
RAINVISION – The context

An ageing population



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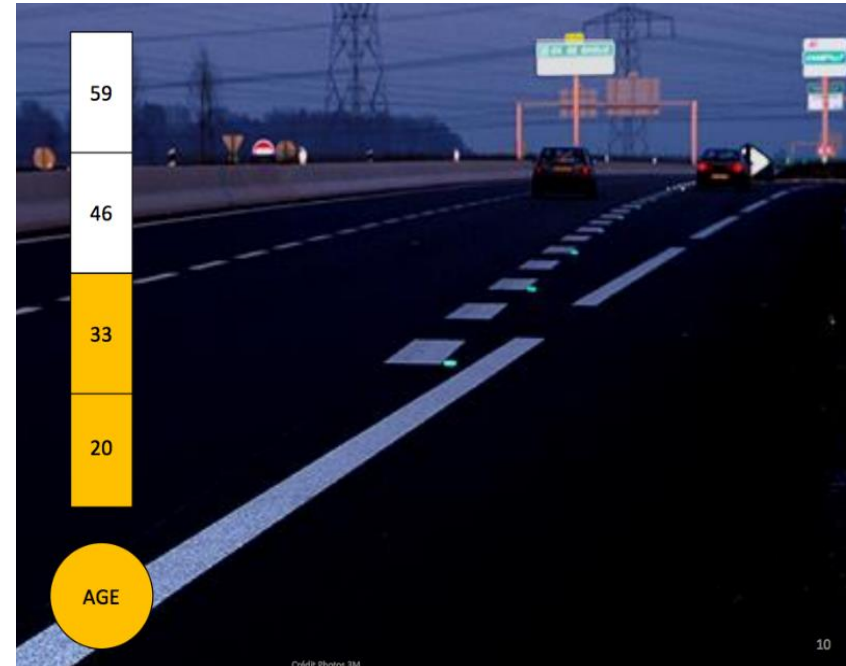
RAINVISION – The context

An ageing population

- **Older people have:**
 - **reduced visual capacities**
 - **lower reactivity time**
 - **BUT, increasing mobile nowadays**

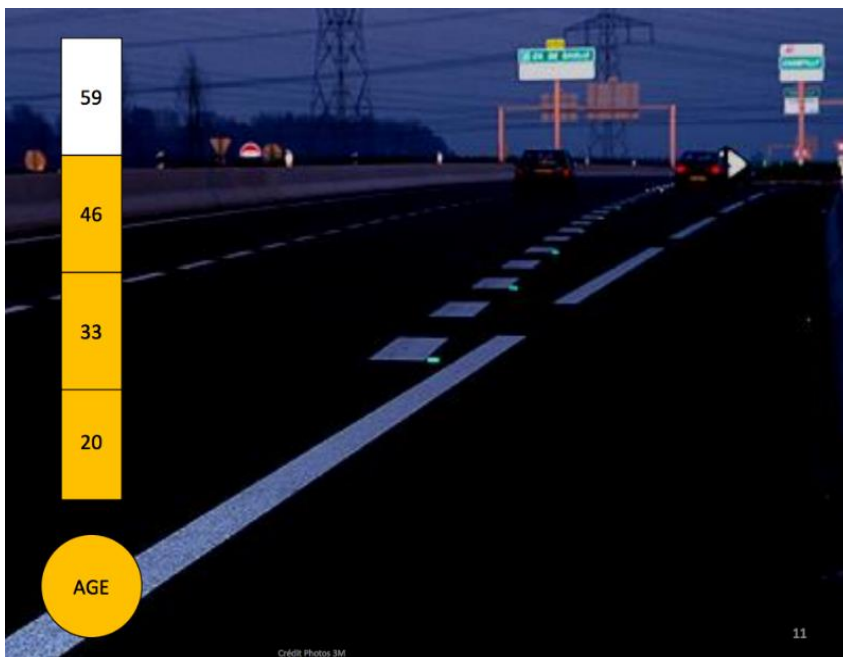
RAINVISION – The context

An ageing population



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An ageing population

- **European Road Safety Action Programme 2011-2020:**
 - **Older people represented 20% of total fatalities in 2008**

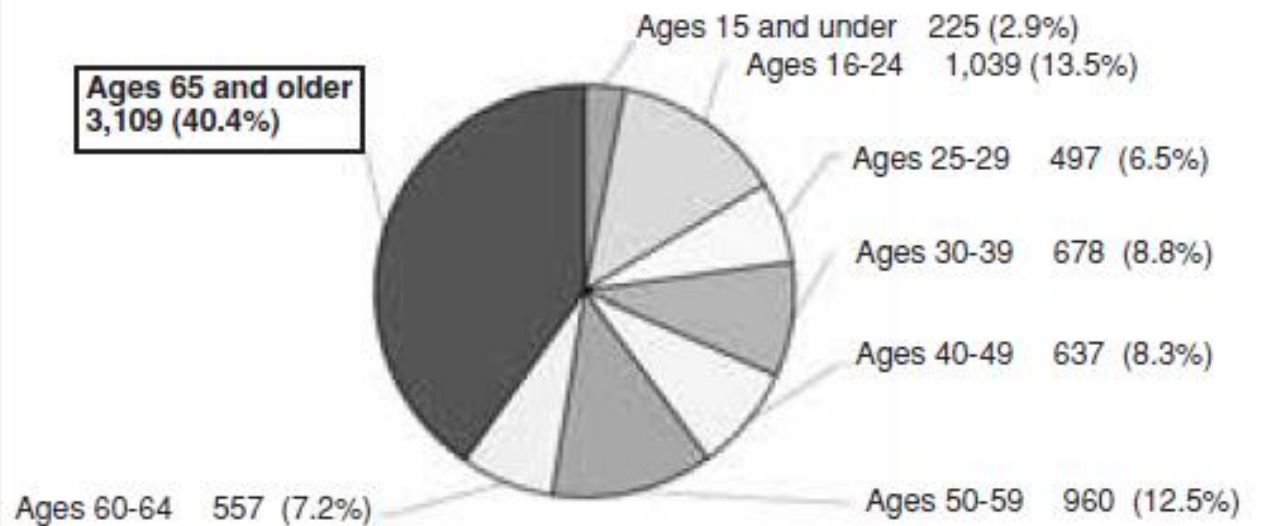
- **Need to think of necessary infrastructure adaptation to meet the needs of older drivers**

- **Visibility and Retroreflectivity of road markings?**

RAINVISION – The context

An ageing population - The example of Japan

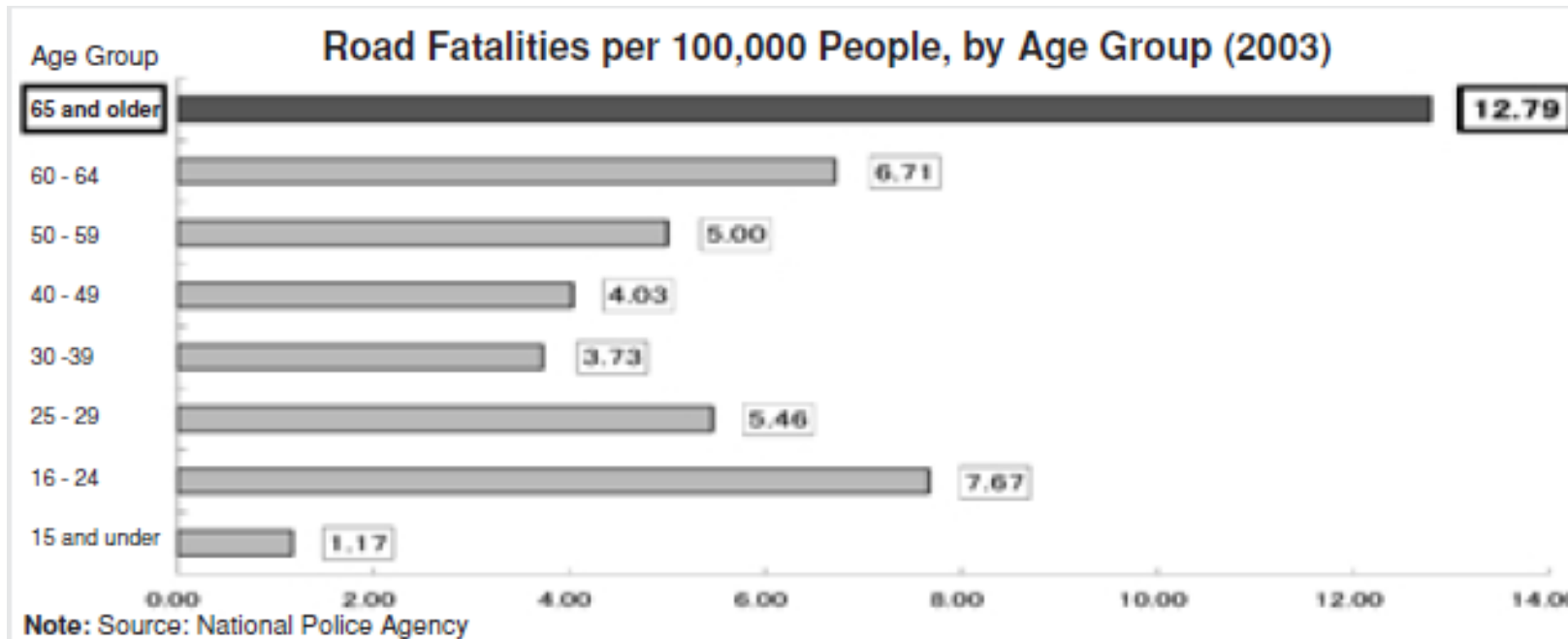
Road Accident Fatalities, by Age Group (2003)



Notes: 1. Source: National Police Agency
 2. Figures in parentheses are percentages of the total.

RAINVISION – The context

An ageing population - The example of Japan



RAINVISION – The context

An ageing population - The example of Japan

- White Paper on Traffic Safety in Japan 2004
- Series of measures were examined to reduce fatalities amongst senior
- Infrastructure measures included:
 - Improvement of the brightness and size of traffic signs
 - Improvement of brightness of road markings

RAINVISION – Objectives

- **Study influence of road marking on driver's behaviour during nighttime**
 - ❖ **All weather conditions**
 - Dry
 - Wet
 - Wet & rainy

- **Analyse how visibility and retro-reflectivity of markings affects driver behaviour according:**
 - ❖ **Age (20-40, 40-60, 60+)**
 - ❖ **Weather conditions**
 - ❖ **Gender**

RAINVISION – Overview

- **Duration: 36 months**
- **Budget: 785000 € - 50% co-financed by DG-MOVE**
- **Consortium: ERF (BE), Aximum (FR), 3M (DE), TTI (AT), RSMA (UK)**

RAINVISION – Overview

6 Work Packages

- WP 1: Management
- WP 2: Simulation Studies - France
- WP 3: Track Test – Austria
- WP 4: On-road Test – UK
- WP 5: Recommendations Handbook
- WP 6: Dissemination

RAINVISION – Approach

- **Tested visibility performances for RMs based of visual needs of road users (EN 1436)**
- **Remain technology neutral**