



## Overview of activities in the 2004-2007 cycle

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## Technical Committee 3.3 – Tunnel Operations

Facts and figures:

Members (24 countries represented)

Members	Corresponding	Associate
32	4	6

Meetings

2004	Paris, France	Rome, Italy
2005	Sydney, Australia	Dubrovnik, Croatia
2006	San Juan, Argentina	Chongqing, China
2007	Kyoto, Japan	Paris, France



# Working Groups

**WG1 – Tunnel operation**

**WG2 – Management of tunnel safety**

**WG3 – Human factors for tunnel safety**

**WG4 – Detection, communication, safety equipment**

**WG6 – Ventilation and fire control**

## More facts and figures

	Members	Countries represented	Corresponding members
WG1	18	15	5
WG2	28	15	7
WG3	15	10	2
WG4	14	13	4
WG6	31	21	2

## WG1 – Tunnel operation

### **1. Improve the behaviour of operating staff**

- Guide for organising, recruiting and training road tunnels operating staff (2007)

### **2. Analyse operation of urban tunnels with high traffic**

- *Recommendations to owners and operators of urban road tunnels (after Congress)*

## WG2 – Management of tunnel safety

### **1. Investigate an integrated approach to road tunnel safety.**

- Integrated approach to road tunnel safety (2007)

### **2. Study the application of risk analysis**

- Risk analysis for road tunnels (for Congress)

### **3. Promote and follow-up policy on dangerous goods in tunnels.**

- Quantitative risk assessment model for dangerous goods transport through road tunnels (Routes/Roads 2006 n° 329)

### **4. Investigate tools to apply safety principles and responsibilities.**

- *Tools for road tunnel safety management (after Congress)*

### **5. Responsibilities in tunnel safety management**

- *Possibly to be continued in next cycle*

## WG3 – Human factors for tunnel safety

### **1. Better understand user behaviour in tunnels**

- Human factors and road tunnel safety regarding users (for Congress)

### **2. Improve user behaviour**

- *Information and education*

### **3. Improve emergency team behaviour**

- Management of the operator / emergency teams interface in road tunnels (for Congress)

## WG4 – Detection, communication, safety equipment

### **1. Study international harmonisation of safety facilities and signage**

- Direction signing on a route incorporating tunnels (for Congress)
- Lay-bys and emergency stations in road tunnels (after Congress)

### **2. Review improved means to detect incidents, alert and guide users**

- Visual and audible means to promote safety in tunnels (merged into WG3 Activity 1)
- Video detection in road tunnels: benefits and limitations (next cycle)



## WG6 – Ventilation and fire control

### **1. Investigate pollution inside tunnels and at portals**

- Road tunnels: A guide to optimising the air quality impact upon the environment (for Congress)

### **2. Study operation strategies for tunnel ventilation**

- *Road tunnels: Operational strategies for ventilation (after Congress)*

### **3. Assess fixed fire-fighting systems**

- Road tunnels: An assessment of fixed fire fighting systems (for Congress)

### **4. Review vehicle design fire size data**

- *Possibly to be continued in next cycle*

### **5. Review pavement behaviour**

- Effects of pavements on fires in tunnels (Routes/Roads 2007 n° 334)



# Seminars and workshops

## **Seminars:**

- San Juan, Argentina (March 2006)
- Chongqing, People's Republic of China (October 2006)

## **Workshops:**

- Sydney, Australia (May 2005)
- Tokyo, Japan (June 2007)



## Other activities

**Committee on Road Tunnel Safety of European Commission**

**European research projects**

**ITA / COSUF**

## Summary of achievements

- 7 reports completed for the Congress
- 5 reports to be completed after the Congress
- 1 special edition of Routes/Roads
- 2 articles for Routes/Roads
- 2 international seminars
- 2 international workshops
- Marketing and training for QRA/DSM software through PIARC website
- Continued interaction with standards bodies and other technical bodies

**A very productive cycle!**