

Association mondiale de la Route



World Road Association

# PIARC Committee


## C 3.3

### “Road tunnel Operation”

(世界道路协会隧道营运技术委员会)

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The position of the committee within the PIARC committees(c3.3在PIARC的位置)

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Technical committees distributed among 4 strategic themes (TS).

**TS3** : Safety and Road operations

- C 3.1 Road safety
- C 3.2 Risk management for roads
- C 3.3 Road tunnels operation**
- C 3.4 Winter maintenance

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The sphere of activity of the PIARC C3.3 committee (C3.3与国际隧协的分工)


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- **PIARC deals with the aspects:**
  - Equipment (设施)
  - Geometry (几何学)
  - Environment (环境)
  - Exploitation (使用)
  - Safety (安全)
- **ITA deals with the aspects:**
  - Geology (地质)
  - Civil engineering (土木工程)



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Birth of the committee ... (C3.3的成立)

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The technical committee in charge of road tunnels within PIARC was created in

1957

under name

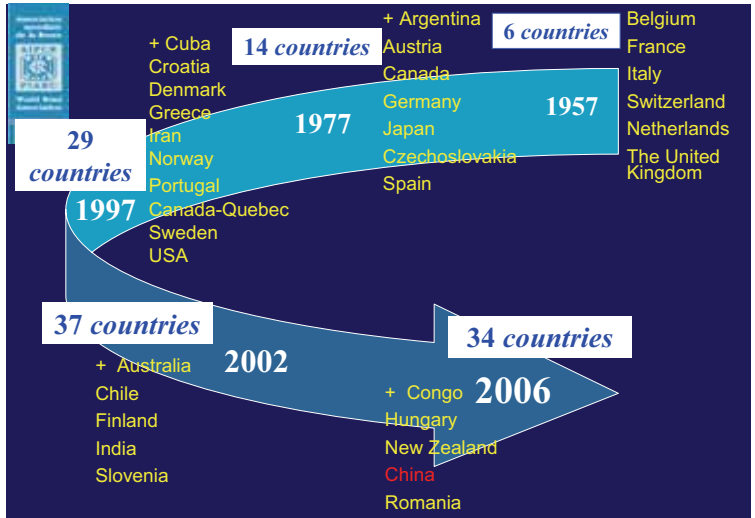
“Committee of Road Tunnels”

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## The founder members(发起国)

The 6 founder countries were :

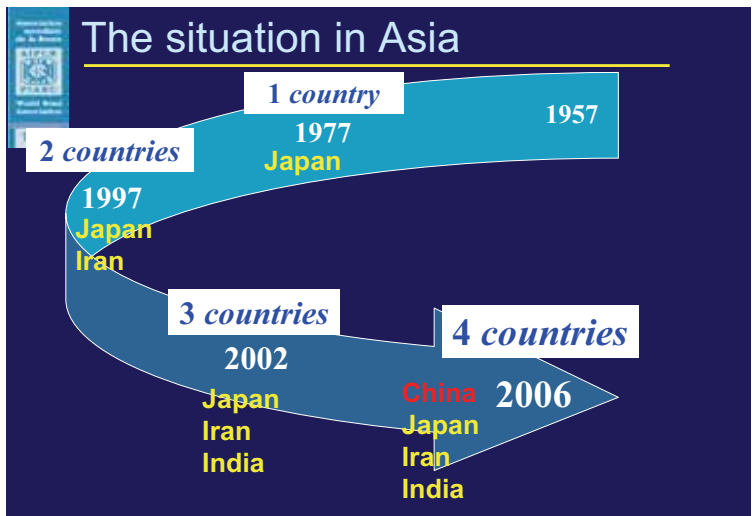
1. Belgium
2. France
3. Italy
4. Netherlands
5. Switzerland
6. The United Kingdom

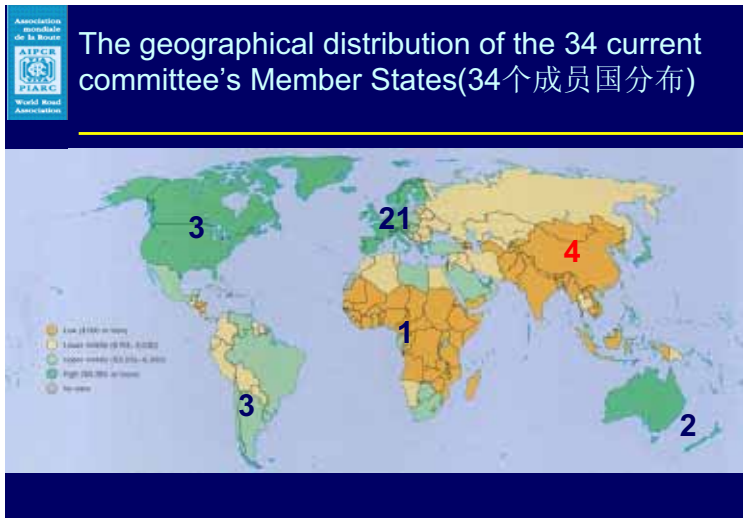


## Presidents of the committee(历任主席)

The successive presidents were:

- 1957-1979  
Mr. J. Rérolle (France)
- 1980-1991  
Sir Alan Muir Wood (U.K)
- 1992-1995  
Mr. E Scotto (Italy)
- 1996-1999  
Mr. M Marec (France)
- **2000-2007**  
**Mr. D. Lacroix (France)**





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- ### Members of the committee(委员)
- 1 President + 3 Secretaries (1位主席和3位秘书)
  - Official members (29个国家的38名官方委员) :  
38 members of 29 different countries
  - Corresponding members (13个国家的15名通讯委员)  
15 members of 13 different countries
  - Associate members (8个国家的8名准委员) :  
8 members of 8 different countries
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- ### Operating mode of the committee (C3.3工作方式)
- It meets twice a year(每年两次工作会议)
  - It organizes 2 seminars per cycle (每循环组织两次学术会议)
  - It sets up the working groups(建立工作组)
  - It validates the products of the working groups (审批工作组报告)
  - It represents the PIARC in working groups / conferences (代表PIARC参加相关工作与会议)
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- ### Meetings of the committee (工作会议)
- 26-27/05/2004 : Paris
  - 02-03/12/2004 : Rome
  - 24-27/05/2005 : Sydney
  - 06-07/10/2005 : Dubrovnik
  - **27-28/03/2006 : San Juan**
  - **16-17/10/2006 : Chongqing**
  - 04-08/06 2007: Tokyo
  - 16-21/09/2007 : Paris
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2 seminars co-organized by the committee in 2004-2007 (学术会议)

- 29-31/03/2006  
San Juan  
(Argentina)
- 18-20/10/2006  
Chongqing  
(China)



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Reports of the committee (委员会报告)

- Good Practice for the Operation and Maintenance of Road Tunnels
- Traffic Incident Management Systems used in Road Tunnels
- Road Tunnels: Vehicle Emissions and Air Demand for Ventilation
- Cross Section Design of Bidirectional Road Tunnels
- Cross Section Geometry in Uni-directional Tunnels
- Pollution by Nitrogen Dioxide in Road Tunnels
- Road Tunnels: reduction of Operating Costs
- Fire and Smoke Control in Road Tunnels
- Road Safety in Tunnels
- Road Tunnels: Emissions, Environment, Ventilation
- Classification of Tunnels, Existing Guidelines and Experiences, Recommendations
- The First Road Tunnel - A Planner Guide for Countries Without Previous Experience of New Road Tunnels

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Reports of the committee (委员会报告)



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The most known report !



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## Articles in Routes/Roads



**Routes/Roads**  
n° 324  
October 2004

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## Working groups of the committee (工作组)


- 1 - Tunnel operation (WG1, 隧道运营)  
25 members
- 2 - Management of tunnel safety (WG2, 隧道安全管理)  
37 members
- 3 - Human factors for tunnel safety (WG3, 人的行为与隧道安全)  
16 members
- 4 - Detection, communication, safety equipment (WG4, 监视、通讯与安全设备)  
18 members
- 6 - Ventilation and fire control (WG6, 通风与火灾控制)  
30 members

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## Quantitative risk assessment model for dangerous goods (OECD/AIPCR)

See PIARC site – C3.3 : [www.piarc.org](http://www.piarc.org)



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## Documents in preparation (各工作组在准备的报告)

WG1 : animator : *Jean-Claude Martin (France)*

1. Guide for organising, recruiting and training tunnel operating staff .  
(隧道营运人员的组织、招聘与培训)
2. Recommendations for high trafficked urban tunnels  
(城市大交通量隧道的建议)

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## Documents in preparation (各工作组在准备的报告)

WG2 : animator : *Rudolf Hoërhan (Austria)*

1. Integrated approach for road tunnel safety  
(公路隧道安全的集成方法)
2. Risk analysis for road tunnels  
(公路隧道风险分析)
3. Responsibilities in road tunnel safety management  
(公路隧道安全管理责任)
4. Tools for road tunnel safety management  
(公路隧道安全管理的工具)

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## Documents in preparation (各工作组在准备的报告)

WG4 : animator : *Urs Welte (Switzerland)*

1. Installation of road signage on a route incorporating a tunnel  
(隧道路段的标志安装)
2. Laybys and S.O.S stations in road tunnels  
(公路隧道紧急停车带与紧急救援站)
3. Video detection in road tunnels: benefits and limitations  
(公路隧道视频监测的优点与局限)

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## Documents in preparation (各工作组在准备的报告)

WG3 : animator : *Evert Worm (Netherlands)*

1. Human factors and tunnel safety  
(人的因素与隧道安全)
2. Guideline for organizing education and information activities on road tunnel safety  
(公路隧道安全的教育与通告指南)
3. Mutual expectations for road tunnel operators and emergency services  
(对公路隧道管理者与紧急救援的共同期望)

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## Documents in preparation (各工作组在准备的报告)

WG6 : animator : *Art Bendelius (USA)*

1. Guide to optimizing of the air quality impact upon the environment  
(隧道空气质量对环境的影响优化指南)
2. Operation strategies for tunnel ventilation  
(隧道通风营运策略)
3. Assessment of fixed fire suppression systems  
(隧道固定灭火系统评价)
4. Update of design fires  
(最新隧道防火设计)
5. Impact of Pavement on Fires  
(隧道路面对火灾的影响)

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The Web site of the committee (网站)



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C 3.3 committee is also...

... more than 130 experts at your disposal to share experiments in the field of road tunnels !

(C3.3还与130多位专家分享公路隧道的研究成果！)

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Participation of the committee in international projects/networks (参与的国际合作项目)

- International Associations/Networks:
  - AITES/ITA
  - COSUF
- European projects R & D:
  - UPTUN
  - SafeT
- European committee of the safety of road tunnels (*Directive 2004/54/EC*)

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In the name of the C 3.3 committee

Thank you for your attention !

(谢谢！)

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