

IGU 2006

Report of Study Group 4.3

**“ROLE OF R&D & TECHNOLOGY  
IN GAS DISTRIBUTION”**

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# Knowledge



**This study was possible thanks to the efforts and dedication of:**

Jean-Pierre CAPDEVIELLE	France
Elzbieta DZIRBA	Poland
Steven GAUTHIER	USA
Seita SHIMIZU	Japan
Dragan VUCUR	Serbia & Montenegro
Tomoaki YOKOYAMA	Japan

**and specially of the vice-coordinator**

Alessandro SORESINA	Italy
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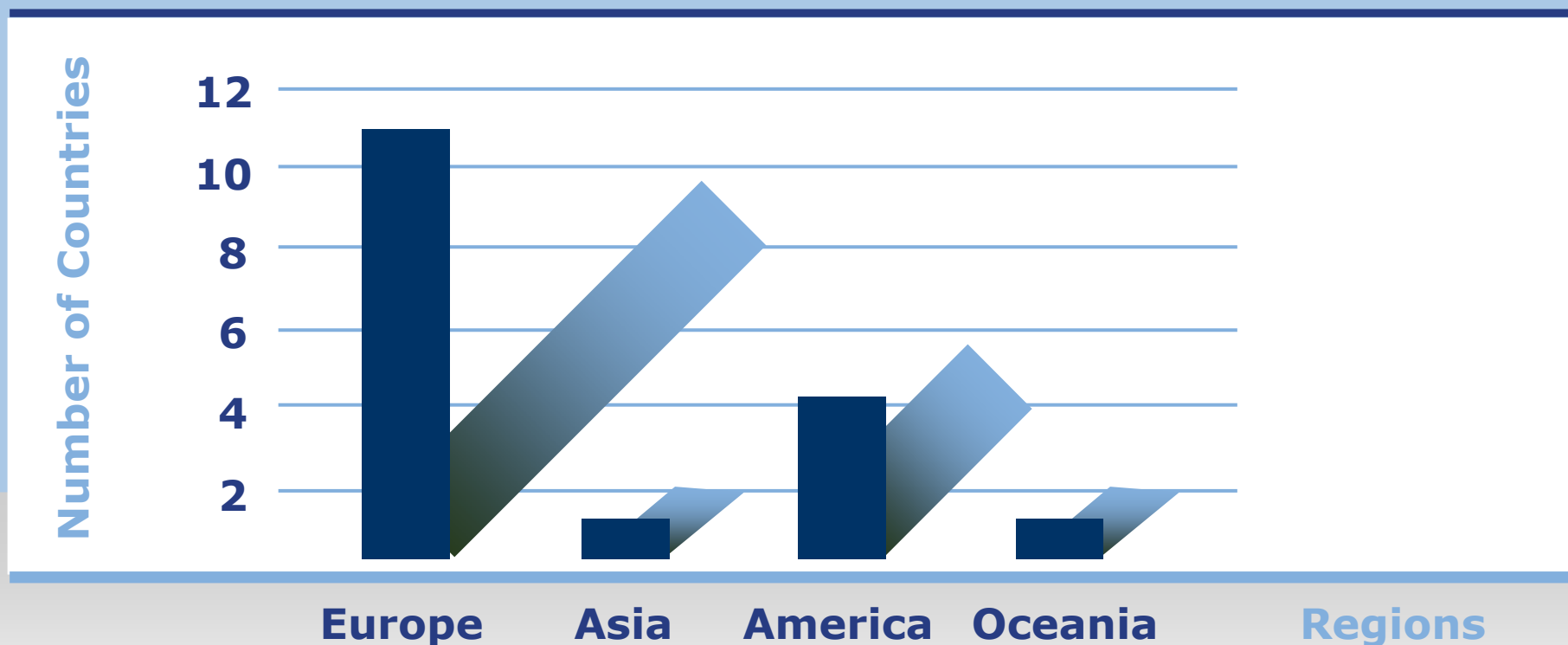
# Report's objectives



- **To analyse the present situation of R&D in distribution companies operating in competitive markets**
- **To look priority areas of R&D in gas distribution**
- **To suggest some ideas for the presentation of R&D in gas distribution companies**

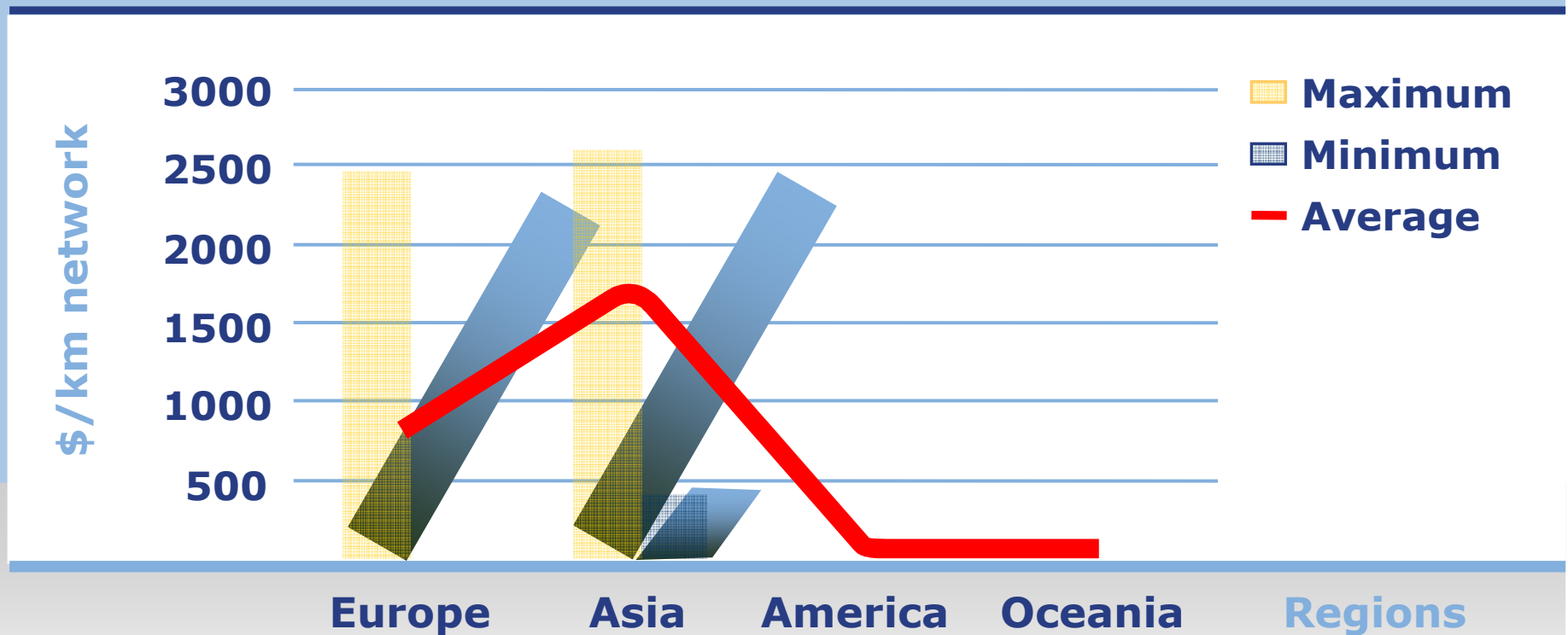


# Answer's distribution





# R&D present situation

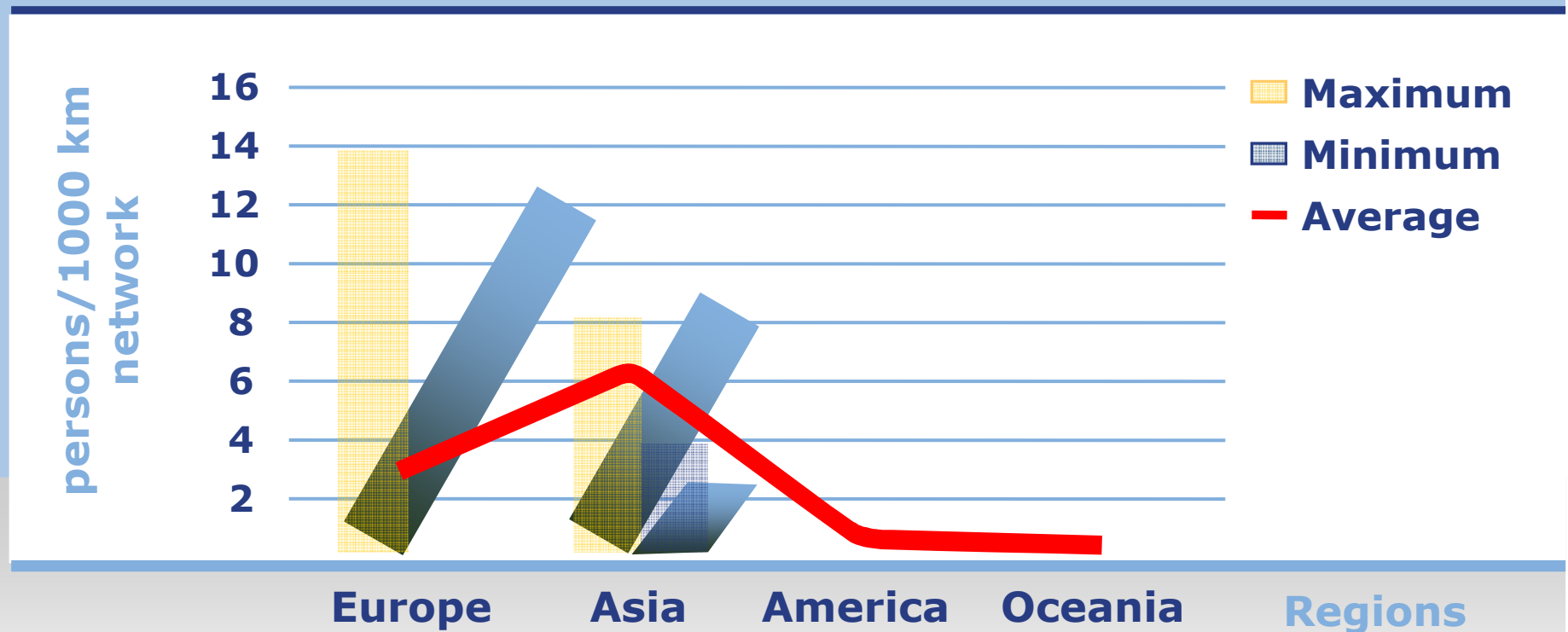




# R&D present situation



## Employees in R&D per 1000 km





## R&D present situation



- The companies' effort in R&D investment is decreasing simultaneously with the consolidation of the liberalization process.
- **Countries with mature competitive systems make the minimum effort in R&D.**
- North American corporations are investing decreasing resources in R&D, Europe is in a transition period, with firms tightening their budgets, while in Asia, where markets are still opening, there is a relatively good level of investment.



## R&D present situation



- Nevertheless, those **companies that maintain a certain level of investment, use a new approach to develop R&D.**
- The R&D departments are disappearing, or reducing their size; the development of new projects is transferred to external institutions.
- **R&D is, in general, done through outsourcing.**





# R&D present situation



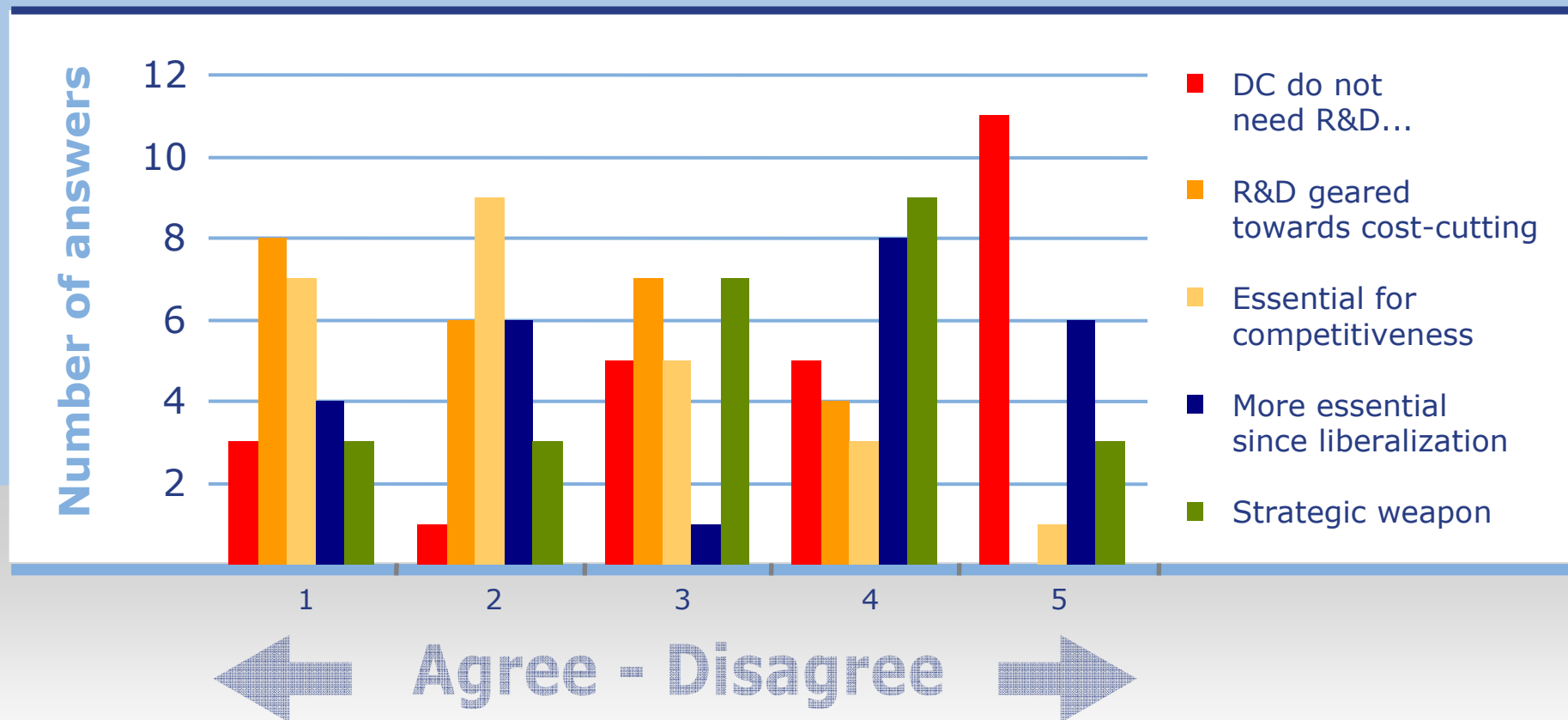
- Historically, R&D in distribution has been developed in consortiums among companies of several countries. Now, these **companies are competitors around the world and it is difficult to coordinate R&D efforts.**



# R&D present situation



## Criteria for undertaking R&D





## R&D present situation



- Most of the companies (64%) believe that R&D **“is essential for distribution companies in order to remain competitive”**
- 56% of respondents believe that “R&D in the area of distribution **“only makes sense when it is geared towards cutting costs”**”



## R&D present situation



- 64% of respondents disagree with the notion that “**distribution companies do not need R&D since the technology they use is solid enough already**”
- General opinion is that “**R&D has become more essential since market liberalization in order to enable distribution companies to offer the best service to the shippers**”



## R&D present situation



- And lastly, it is clear that for most gas distribution companies, **“R&D is not being considered by management as a strategic weapon for consolidating the company’s position”**

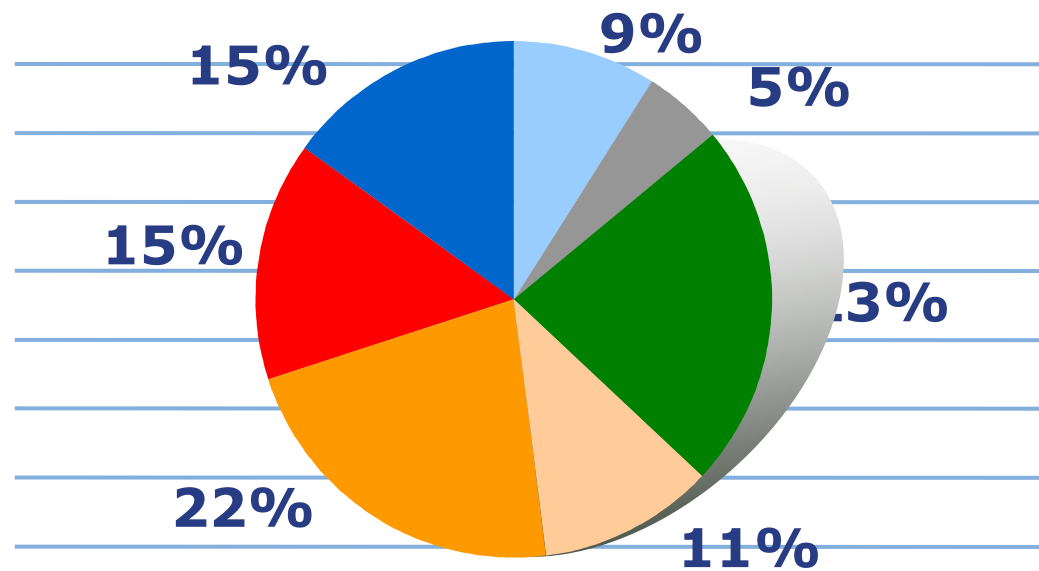


# Areas of interest in Distribution R&D



## Areas of interest (average)

- Deliverability
- Supply Balance
- Operational Safety
- Gas Control
- Cost Cutting
- Environmental Aspects
- Reliability





## Ideas to promote R&D in Distribution



- **R&D** must become one of the **main keys for companies' competitiveness** in the new industry scenario
- **R&D activities must be focused** clearly on highest priority topics, targeting **cost reduction and effective benefits for the customers**, without leaving efforts to maintain the present **safety and reliability network levels**



# Ideas to promote R&D in Distribution



- **Authorities** must give the suitable importance to R&D processes also in gas distribution, **to guarantee the safety and integrity of the gas sector in the future**
- **R&D costs should be reflected in gas rates**
- **R&D approach should be return to the named "Collaborative Research"**





**Thank you**