

# PPP: New Financing Trends Impact on Tunnelling Contracts

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# PPP: New Financing Trends

## Impact on Tunnelling Contracts

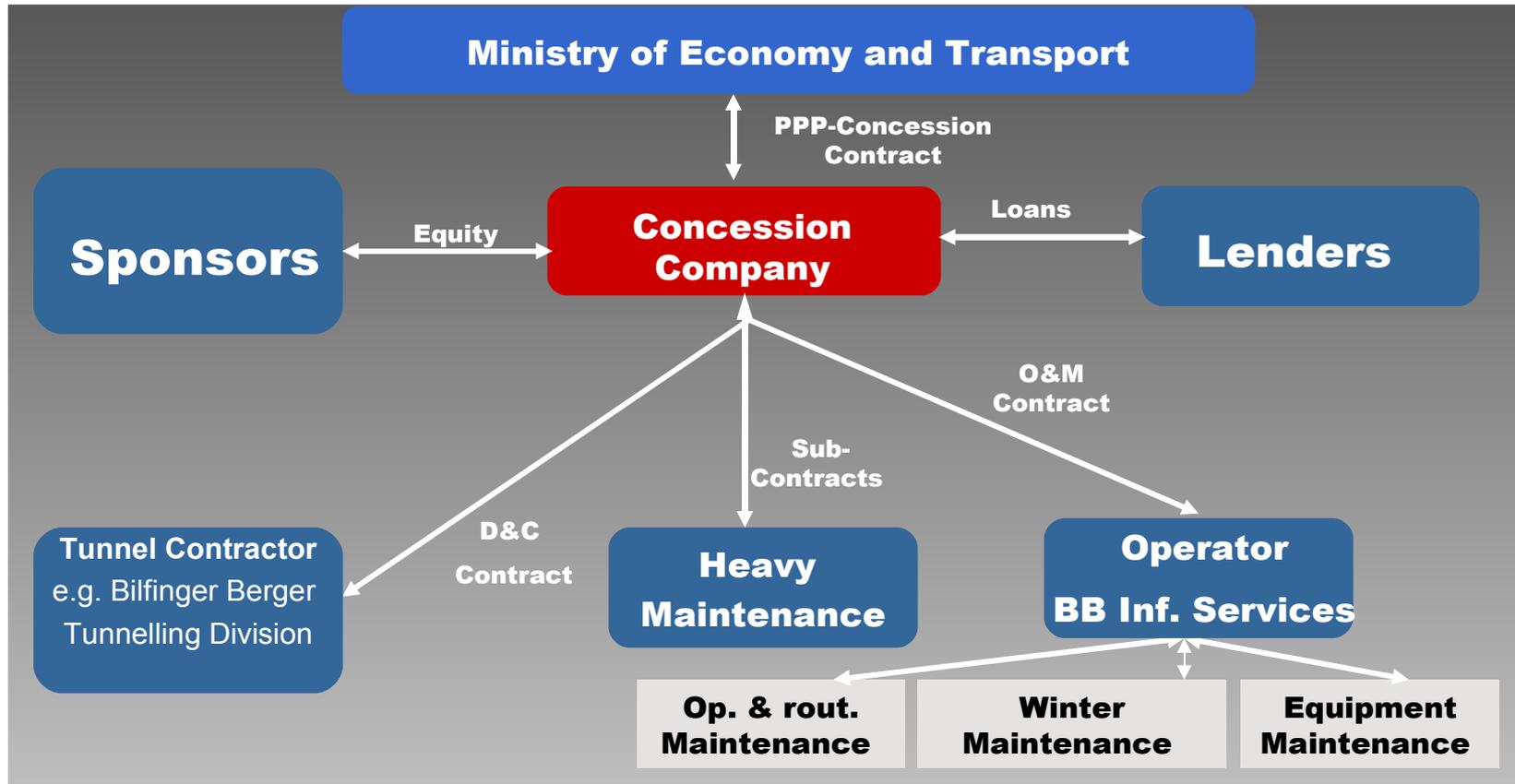
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- **Investment – Return of Funds**
- **Why PPP?**
- **Participation in a PPP Project from the Contractor's Point-of-View**
- **Risk Evaluation from the Contractor's Point-of-View**
- **Typical Risks of a PPP Project versus “Classical Scheme”**
- **Risk Evaluation between the Contractor and the Concessionaire**
- **Availability Fee versus Traffic Risk**
- **Summary / Conclusion**

# PPP: New Financing Trends

## Impact on Tunnelling Contracts

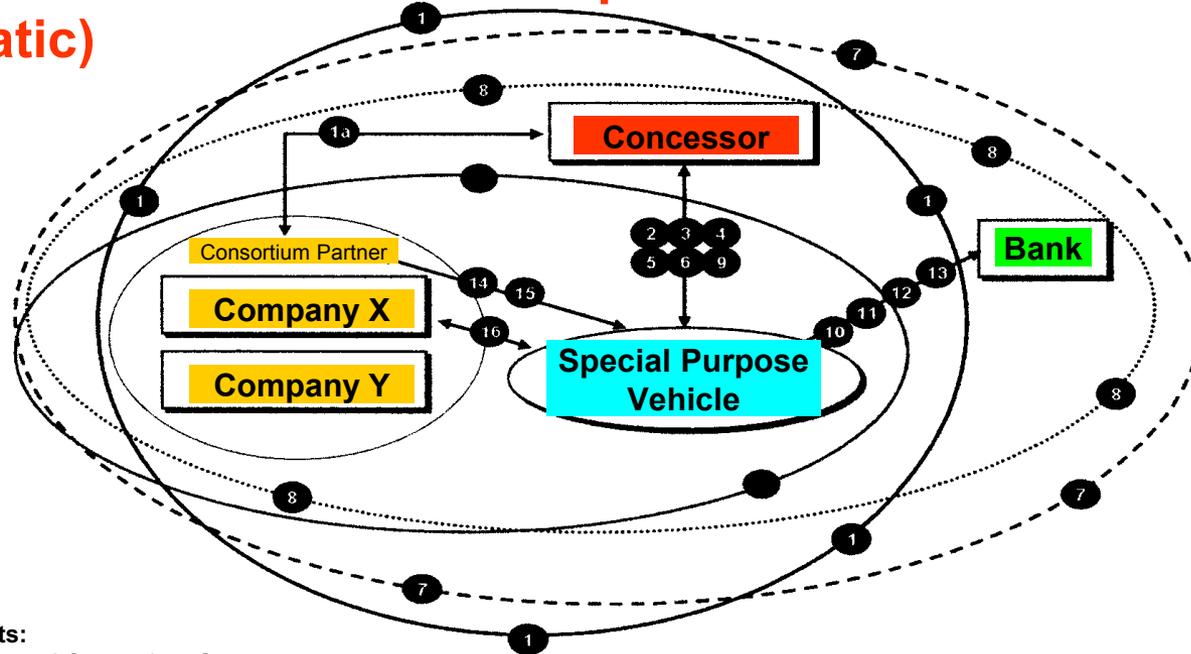
### Contractual structure (example)



# PPP: New Financing Trends

## Impact on Tunnelling Contracts

### Detailed contractual relationships (schematic)



#### Project Contracts:

1. PPP-Project and Consortium Contract
- 1a. Partnership Agreement
2. Leasing Contract
3. Renovation and Rental Agreement
6. Facility Management Contract (with service level agreement and bonus/malus rule)
7. Cleaning Service Contract (with service level agreement and bonus/malus rule)
8. Grounds Servicing Contract (with service level agreement and bonus/malus rule)
9. Mediation and Arbitration Agreement
10. Direct Agreement
11. Arbitrator's Agreement

#### Financing Contracts Project Partnership:

2. Garnishment Agreement on Accounts
3. Contract to Assign Bonds on Claims from Project Contracts
4. Loan Agreement
5. Contract to Assign Bonds on Claims from Insurance

#### Sub-Contractor Contracts Project Partnership:

8. General Contractor Contract with Consortium Partners
9. Contract to Carry-Out Maintenance Work with Consortium Partners
10. Agency Contract with Consortium Partners

#### Miscellaneous Contracts:

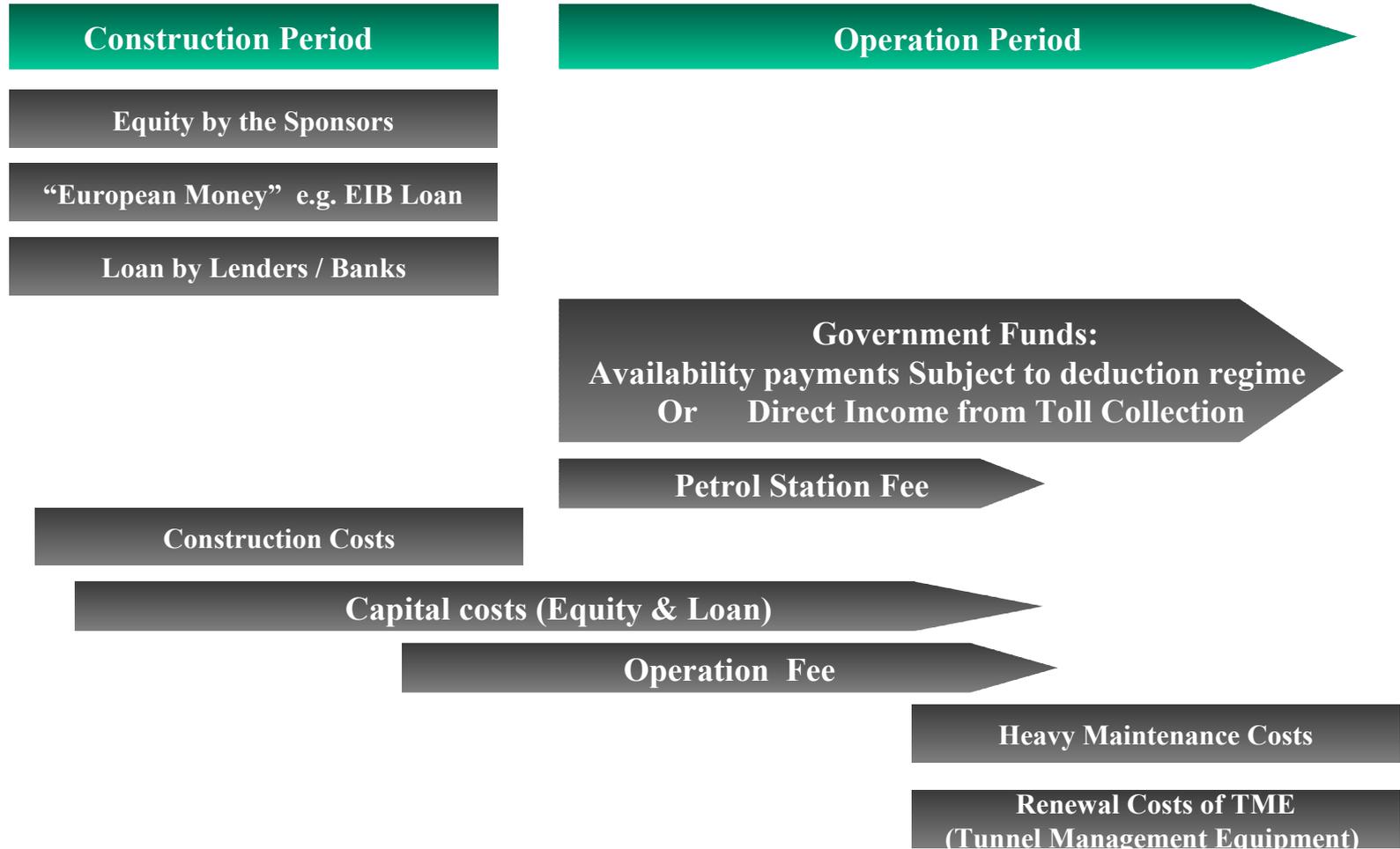
17. General Agreement



# PPP: New Financing Trends

## Impact on Tunnelling Contracts

### Investments & Return - Sources of Funds

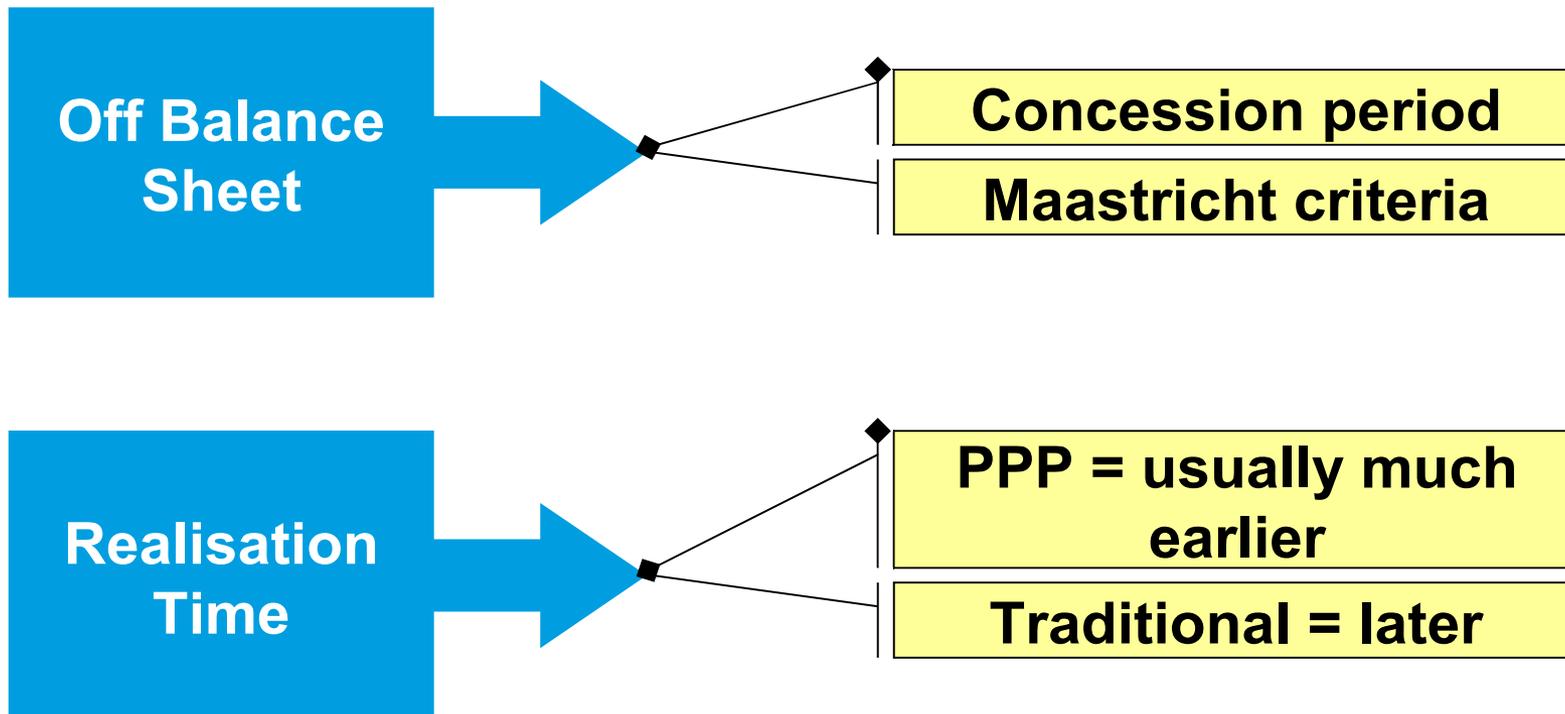


# PPP: New Financing Trends

## Impact on Tunnelling Contracts

### Why PPP ?

### Advantages for the State / the Users

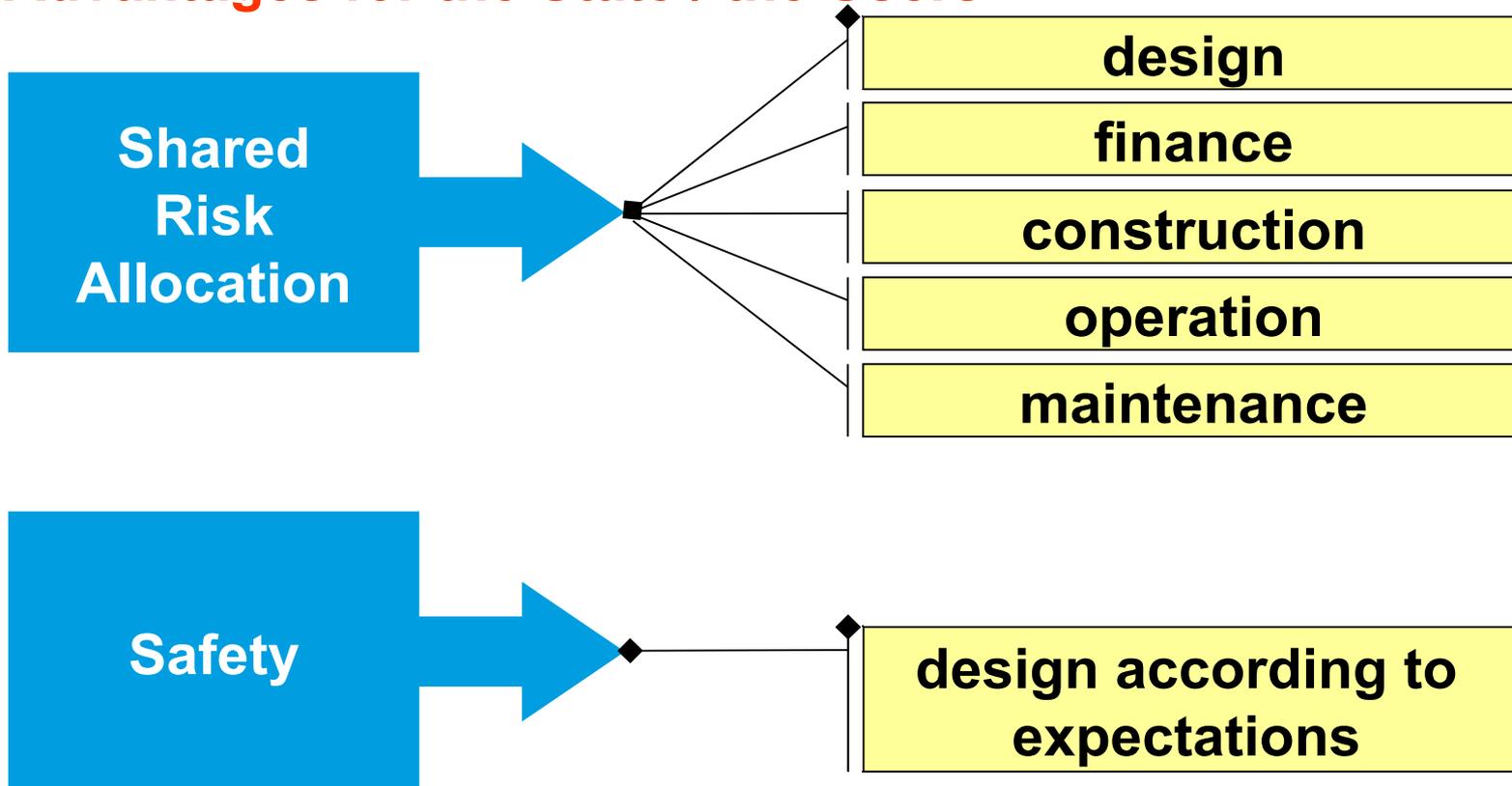


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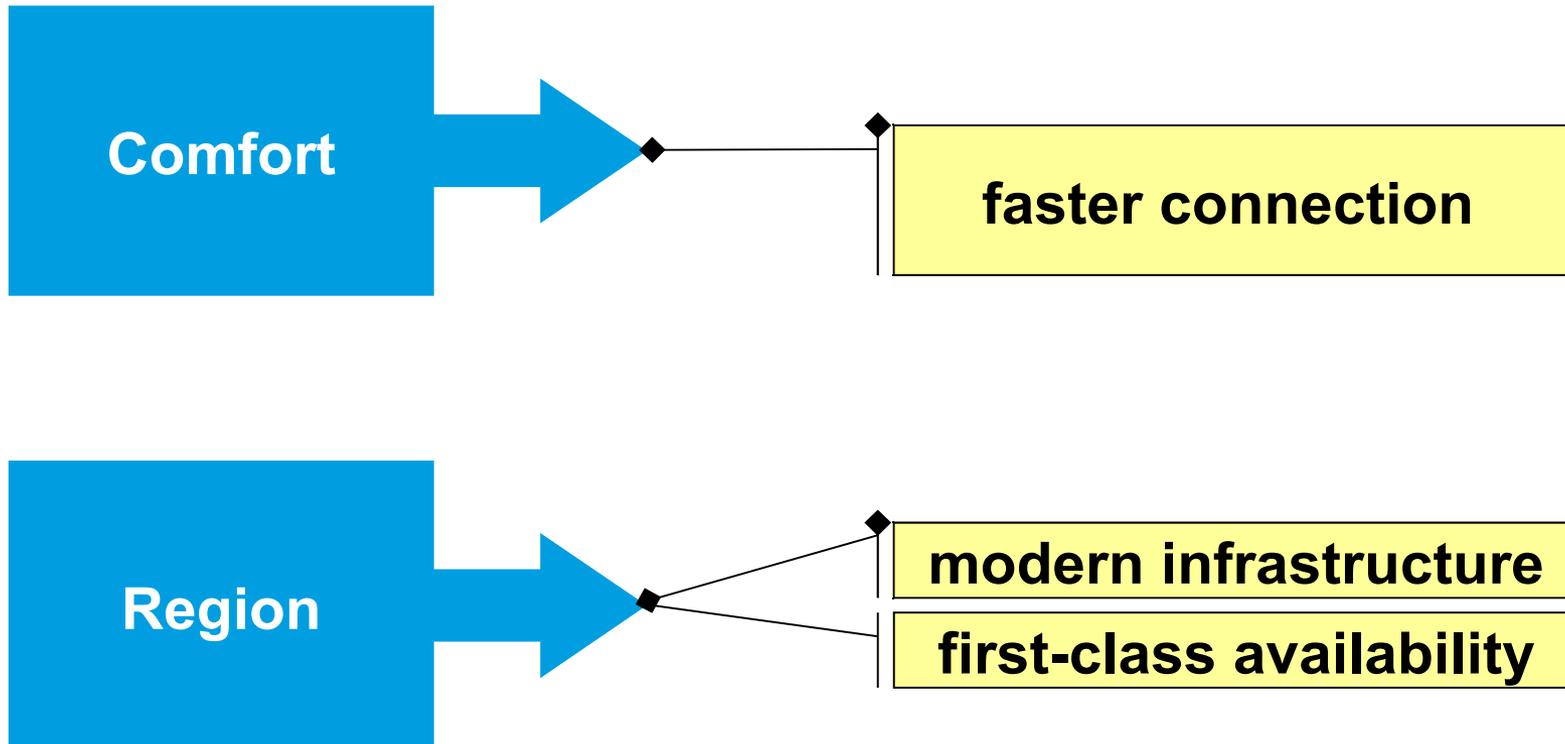
### Why PPP ?

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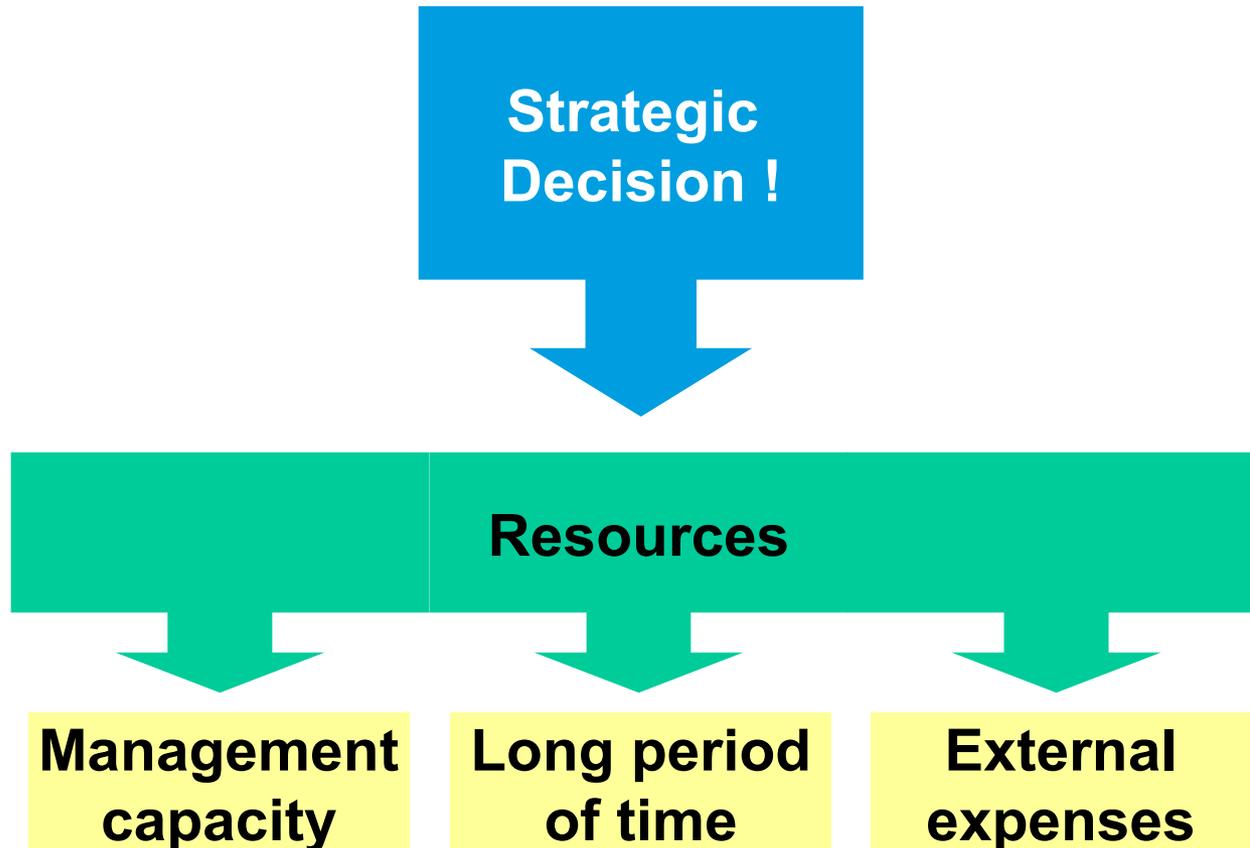
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## Why PPP ? Advantages for the State / the Users



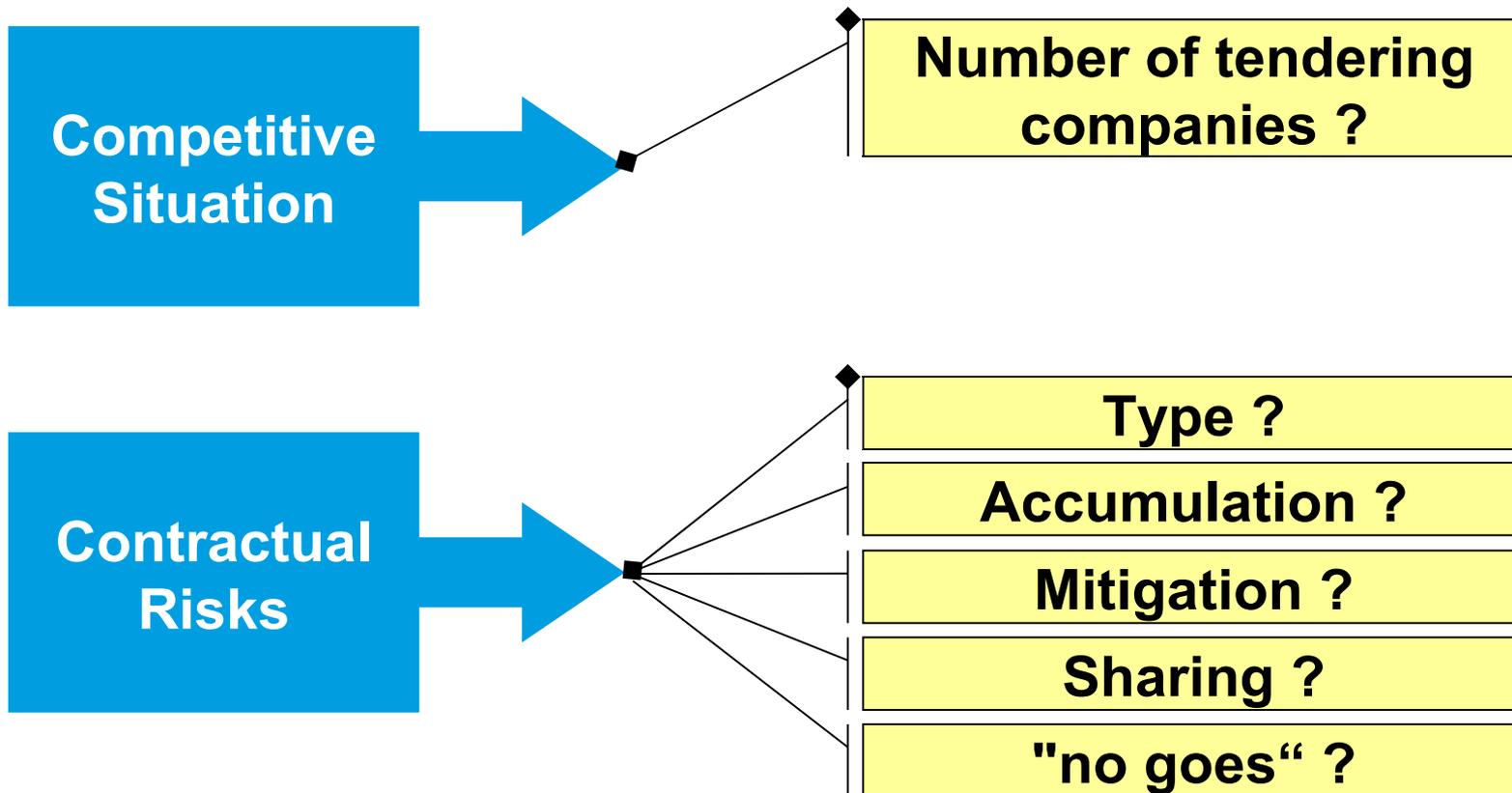
# PPP: New Financing Trends Impact on Tunnelling Contracts

## Participation in a PPP from the Contractor's Point of View



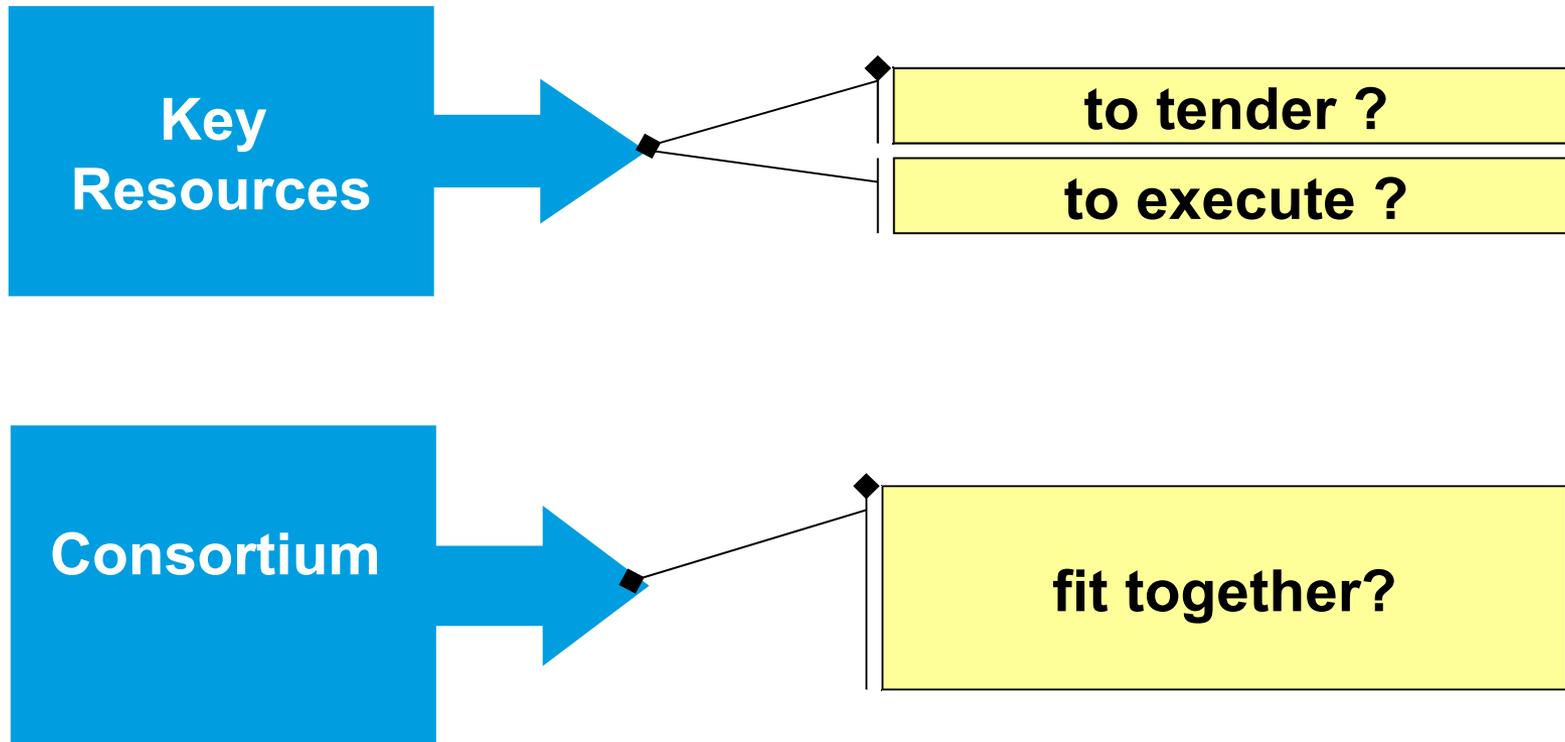
# PPP: New Financing Trends Impact on Tunnelling Contracts

## Participation in a PPP : Analysis / Consequences



# PPP: New Financing Trends Impact on Tunnelling Contracts

## Participation in a PPP : Analysis / Consequences



# PPP: New Financing Trends Impact on Tunnelling Contracts

## Participation in a PPP : Analysis / Consequences

One or more  
issues unsure ?

A clear  
"NO" ?

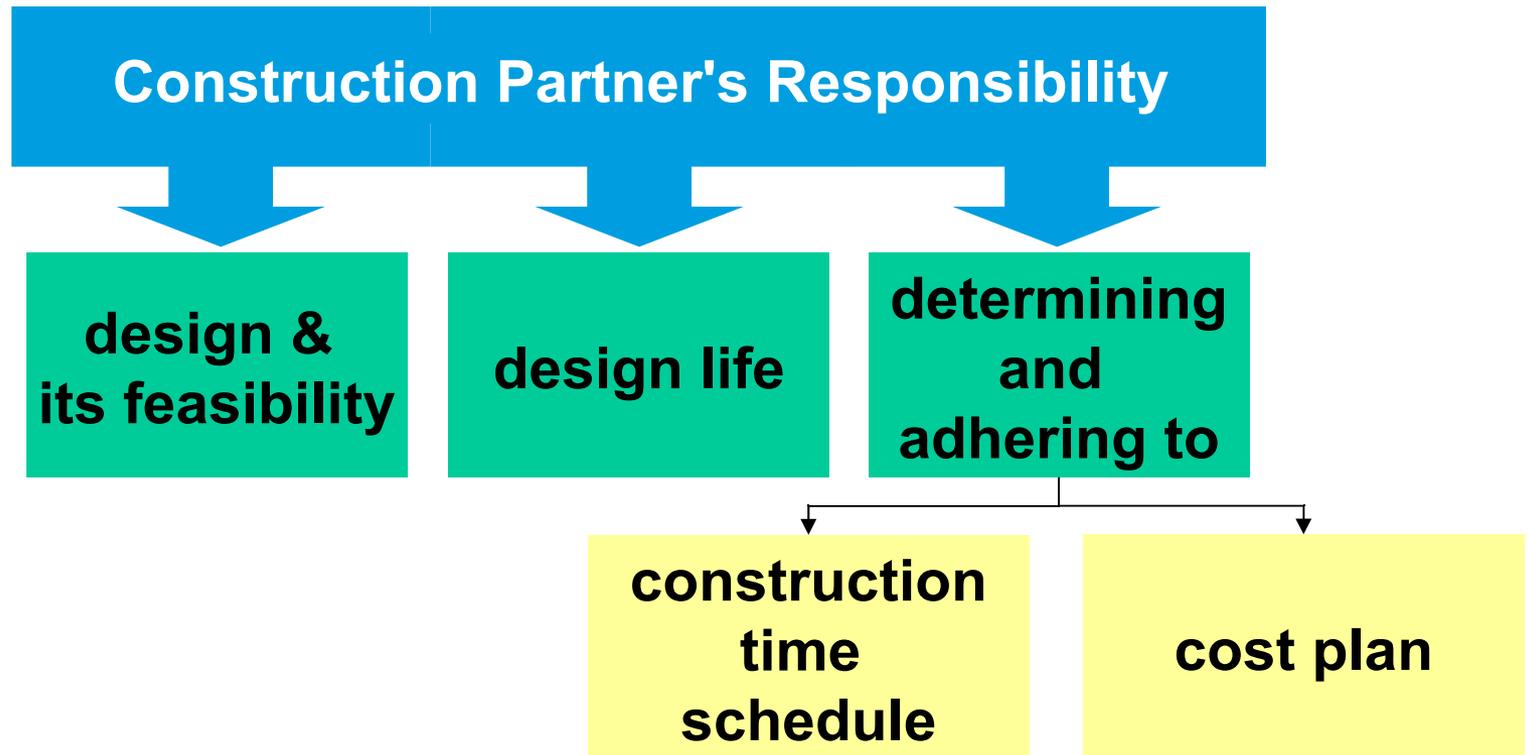
*Consequence:*



# PPP: New Financing Trends

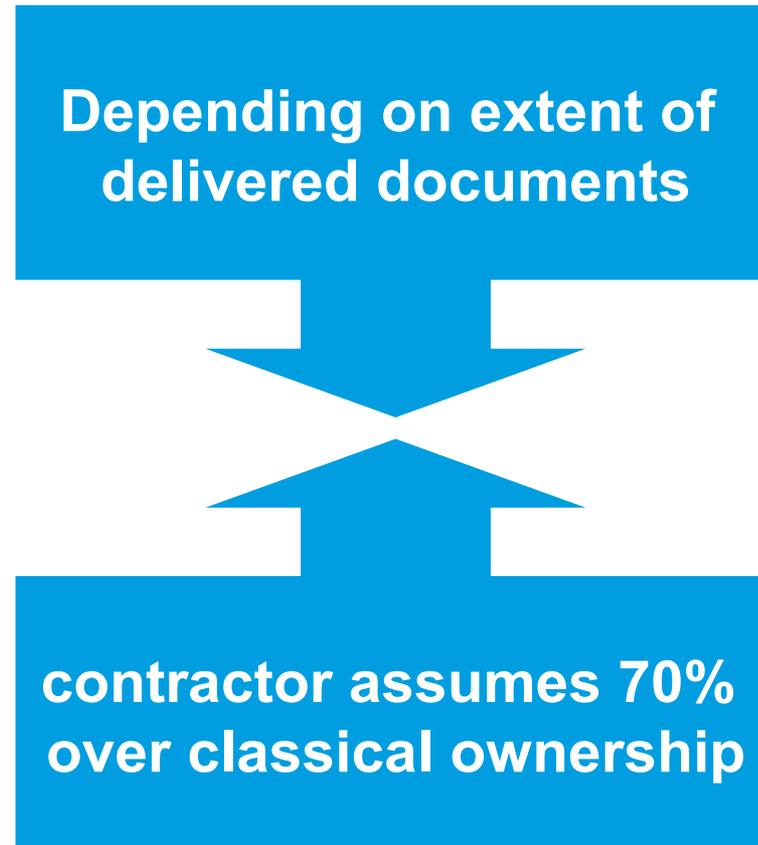
## Impact on Tunnelling Contracts

### Participation in a PPP : Contractor's Main Tasks



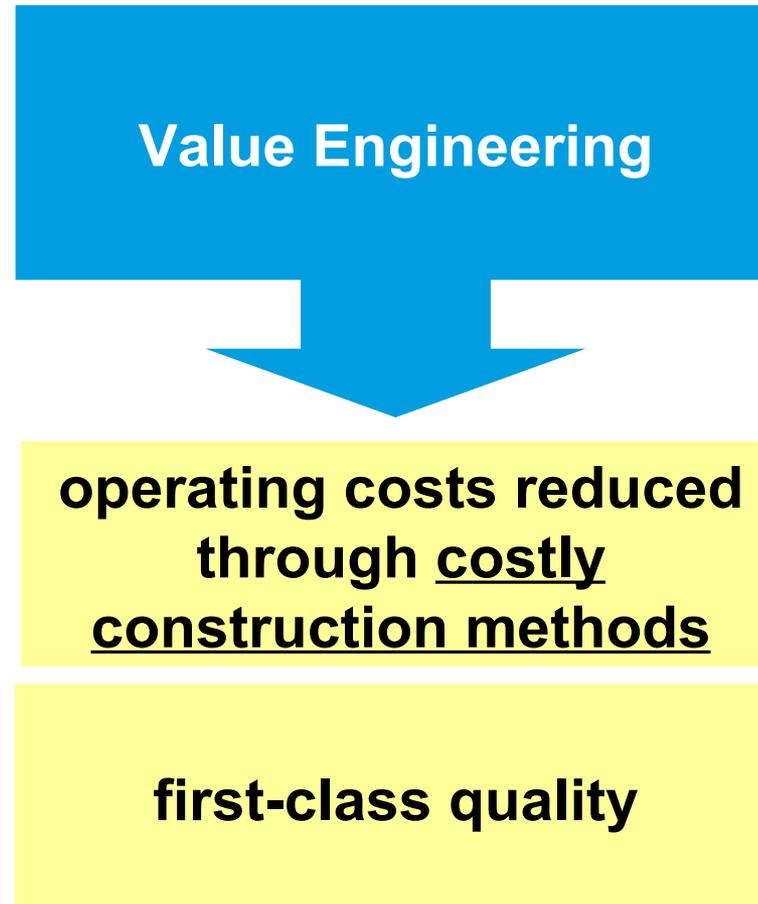
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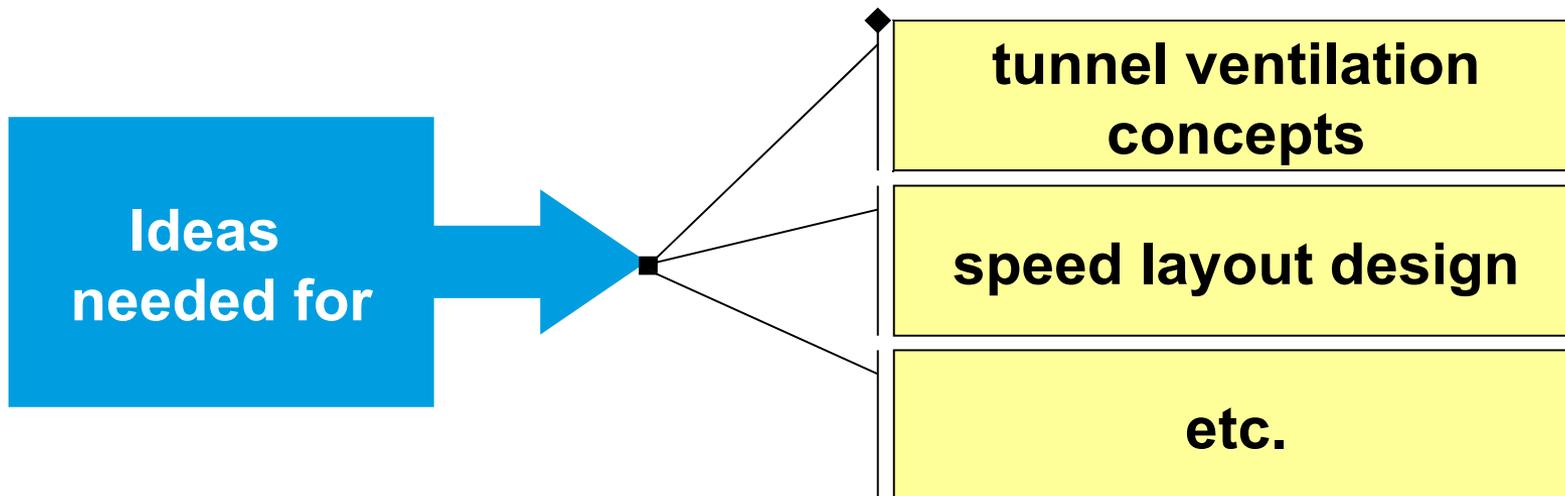
# PPP: New Financing Trends Impact on Tunnelling Contracts

## Participation in a PPP : Design Process



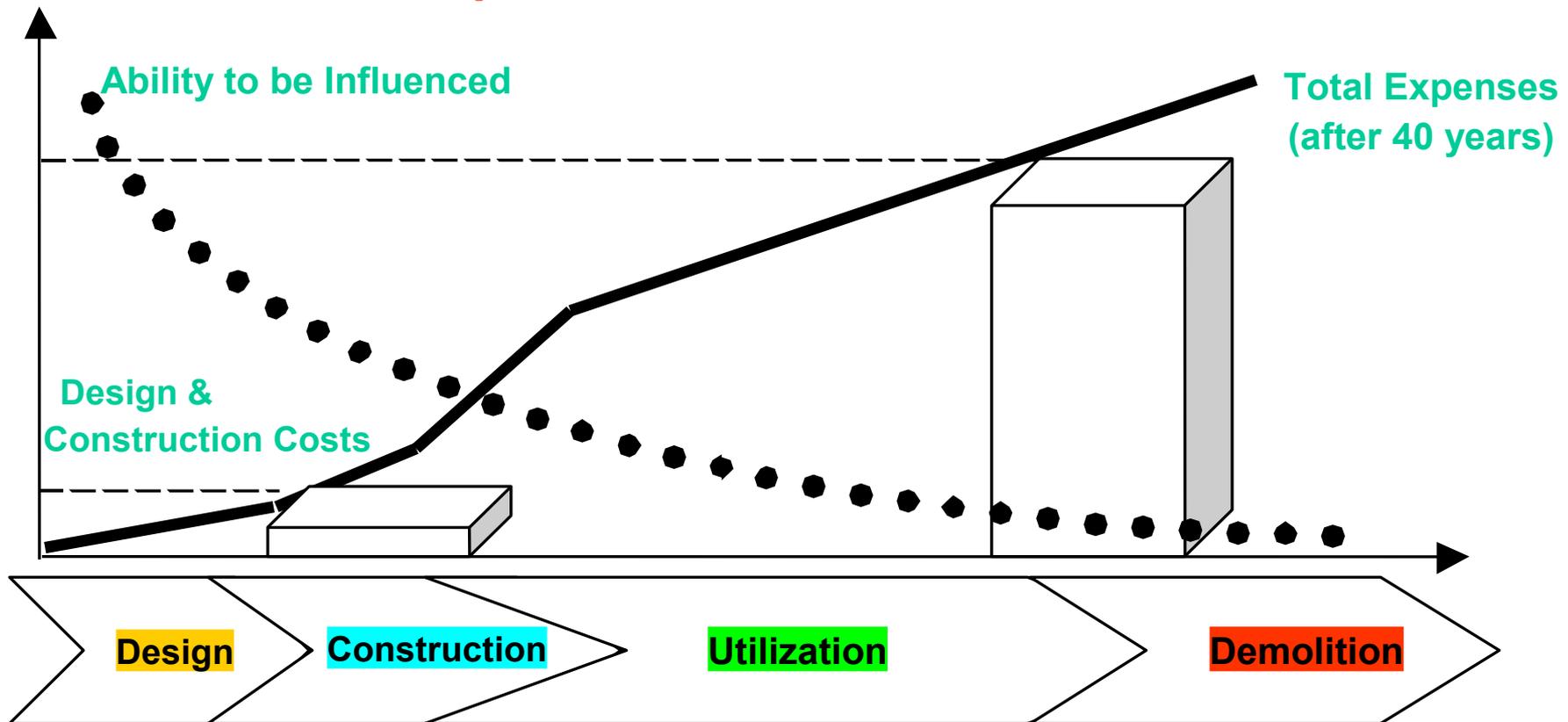
# PPP: New Financing Trends Impact on Tunnelling Contracts

## Participation in a PPP : Design Process



# PPP: New Financing Trends Impact on Tunnelling Contracts

## Participation in a PPP : Integrated Design through early Examination of the Utilization Expenses

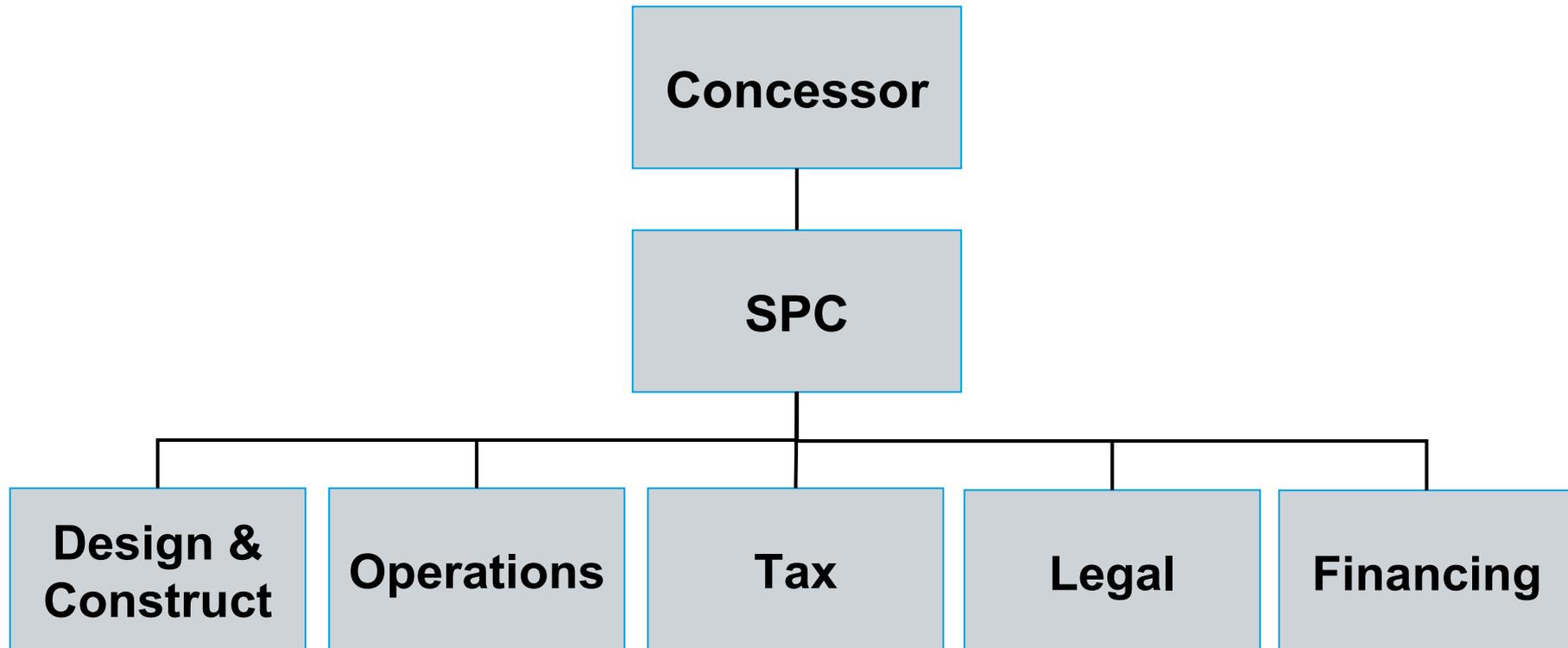


# PPP: New Financing Trends

## Impact on Tunnelling Contracts

### Participation in a PPP :

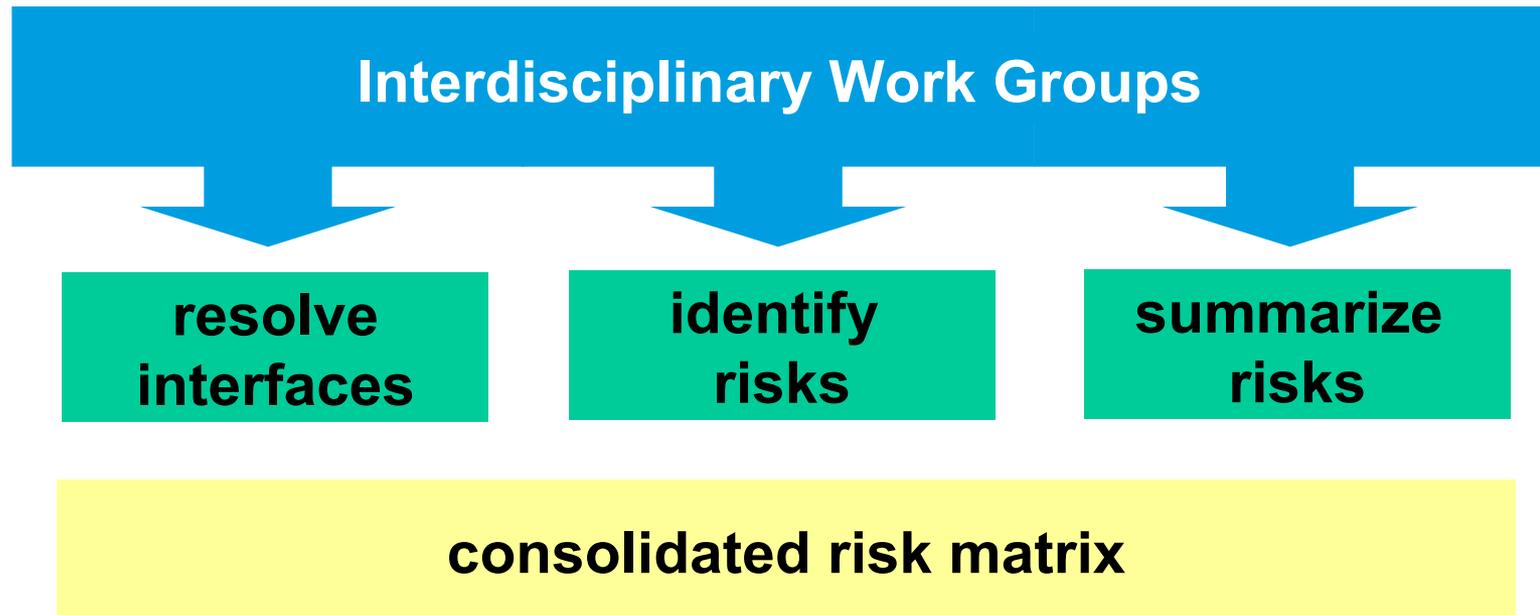
### Communication Channels between Work Groups during the Tender Preparation Phase



# PPP: New Financing Trends Impact on Tunnelling Contracts

## Participation in a PPP :

## Communication Channels between Work Groups during the Tender Phase

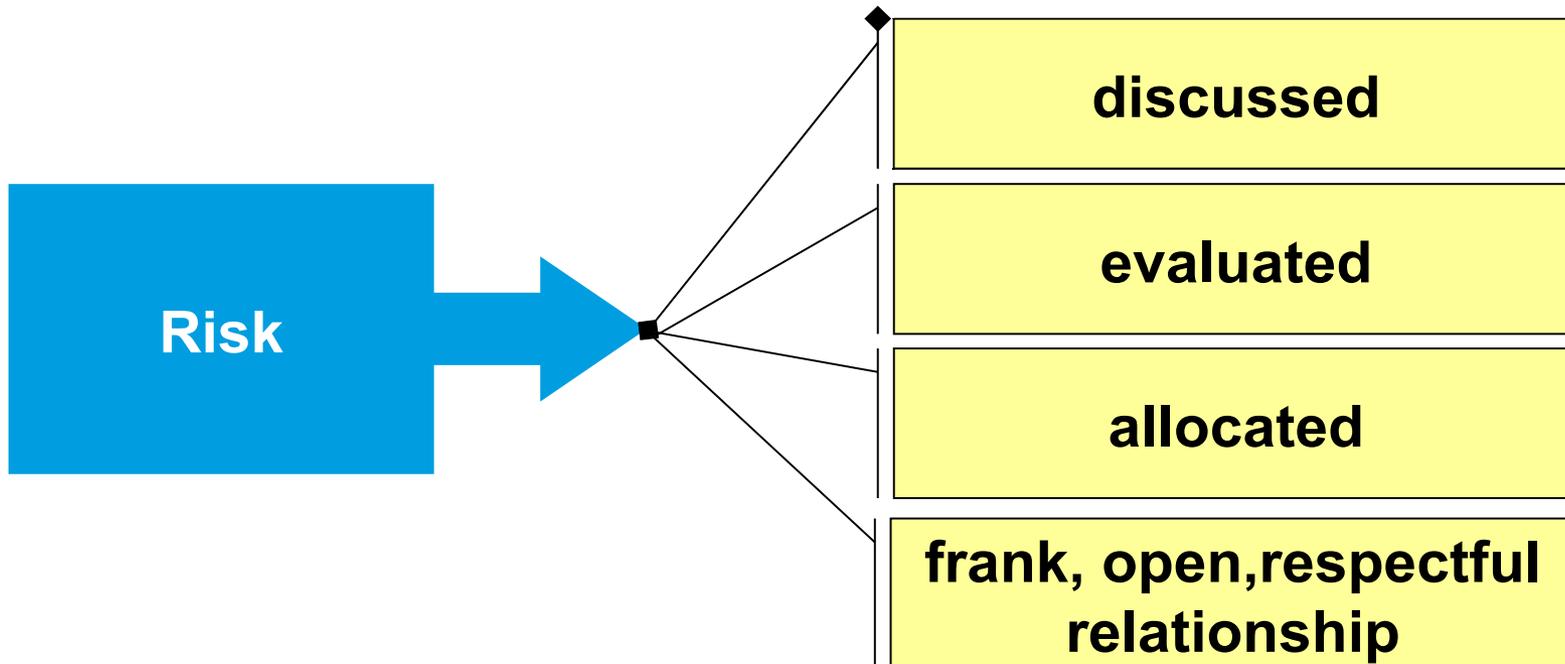


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## Impact on Tunnelling Contracts

### Participation in a PPP :

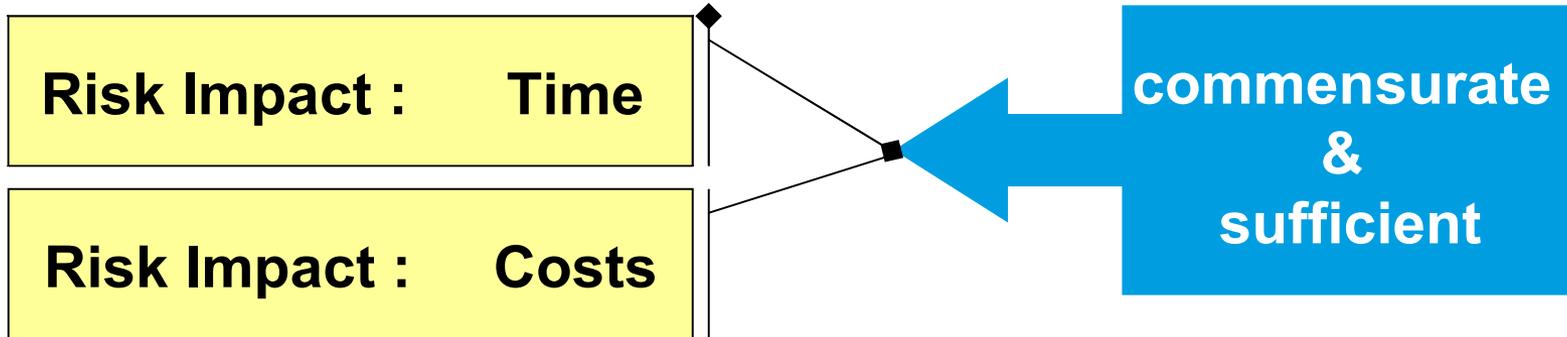
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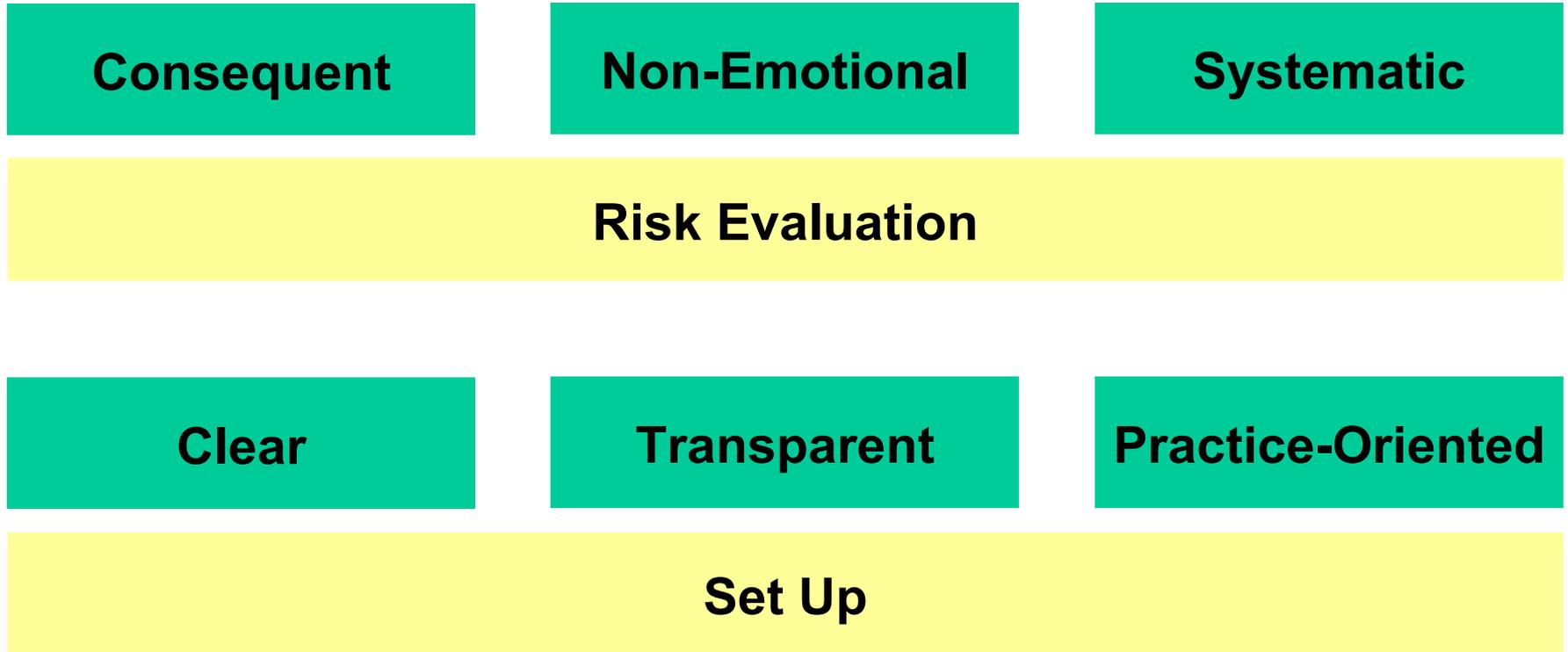
### Risk Evaluation



# PPP: New Financing Trends

## Impact on Tunnelling Contracts

### Risk Evaluation



# PPP: New Financing Trends Impact on Tunnelling Contracts

## Risk Evaluation

**Good feelings not enough and dangerous !**

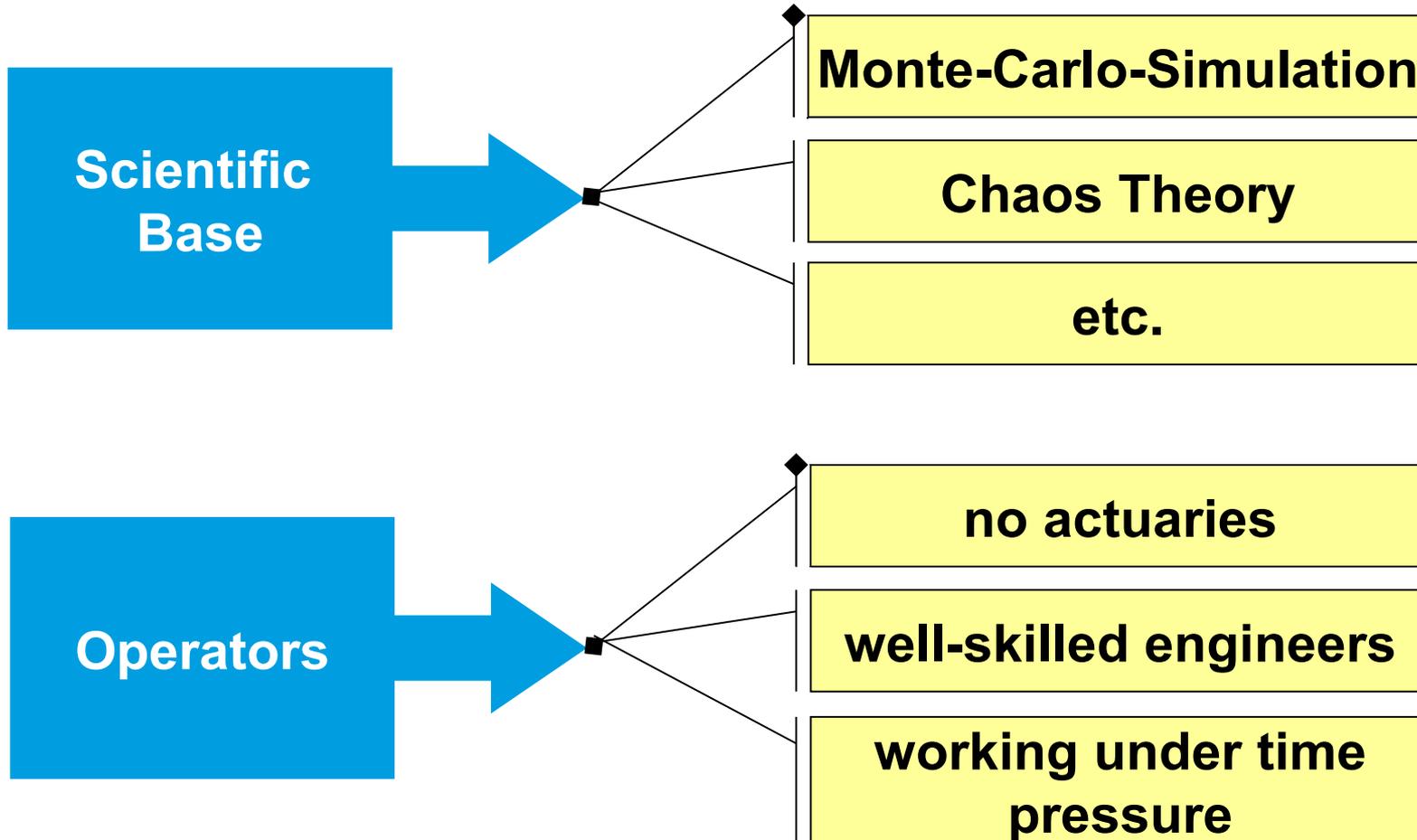
**Rough extra charges may not be economical !**



# PPP: New Financing Trends

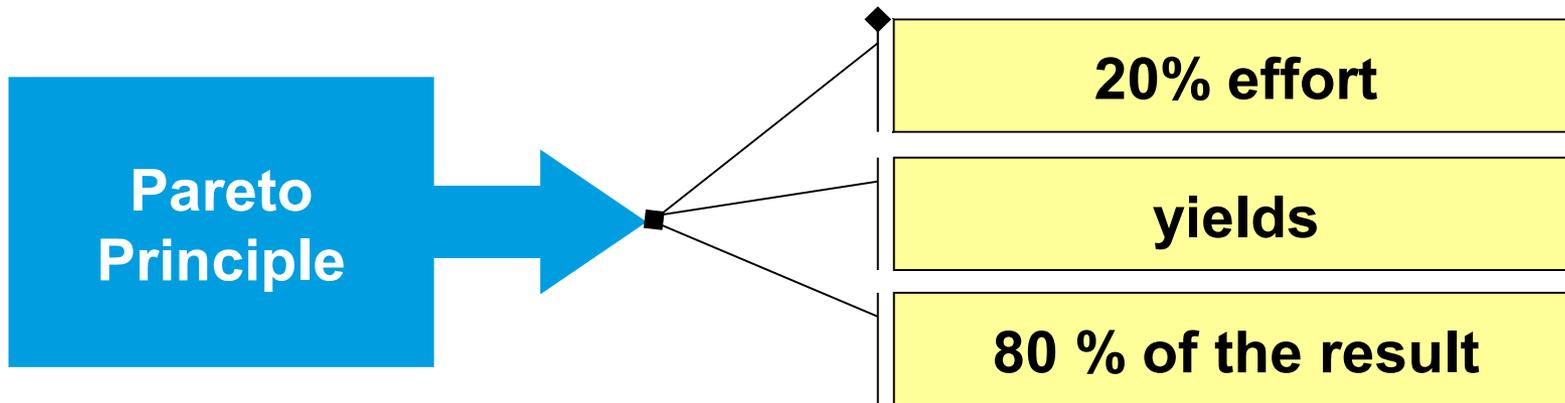
## Impact on Tunnelling Contracts

### Risk Evaluation Tools



# PPP: New Financing Trends Impact on Tunnelling Contracts

## Risk Evaluation Tools

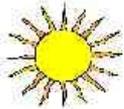


# PPP: New Financing Trends

## Impact on Tunnelling Contracts

### Risk Evaluation Tools

**Operation + Input + Result Analysis**  
**of the tool must be simple, fast and fool-proof !**

| Frequency  | x | Consequence   | =   | Risk Level   |
|--|---|---|---|--|
| very likely  |   | disastrous  |    | unacceptable   |
|  |   |  |   |  |
| very unlikely  |   | insignificant   |  | negligible   |



# PPP: New Financing Trends

## Impact on Tunnelling Contracts

### Impact of Time Overrun

#### Time Schedule Allocation

**Target Completion Date = Payback Date, plus interest**



# PPP: New Financing Trends

## Impact on Tunnelling Contracts

### Impact of Time Overrun



# PPP: New Financing Trends Impact on Tunnelling Contracts

## Risk Transfer Mantra

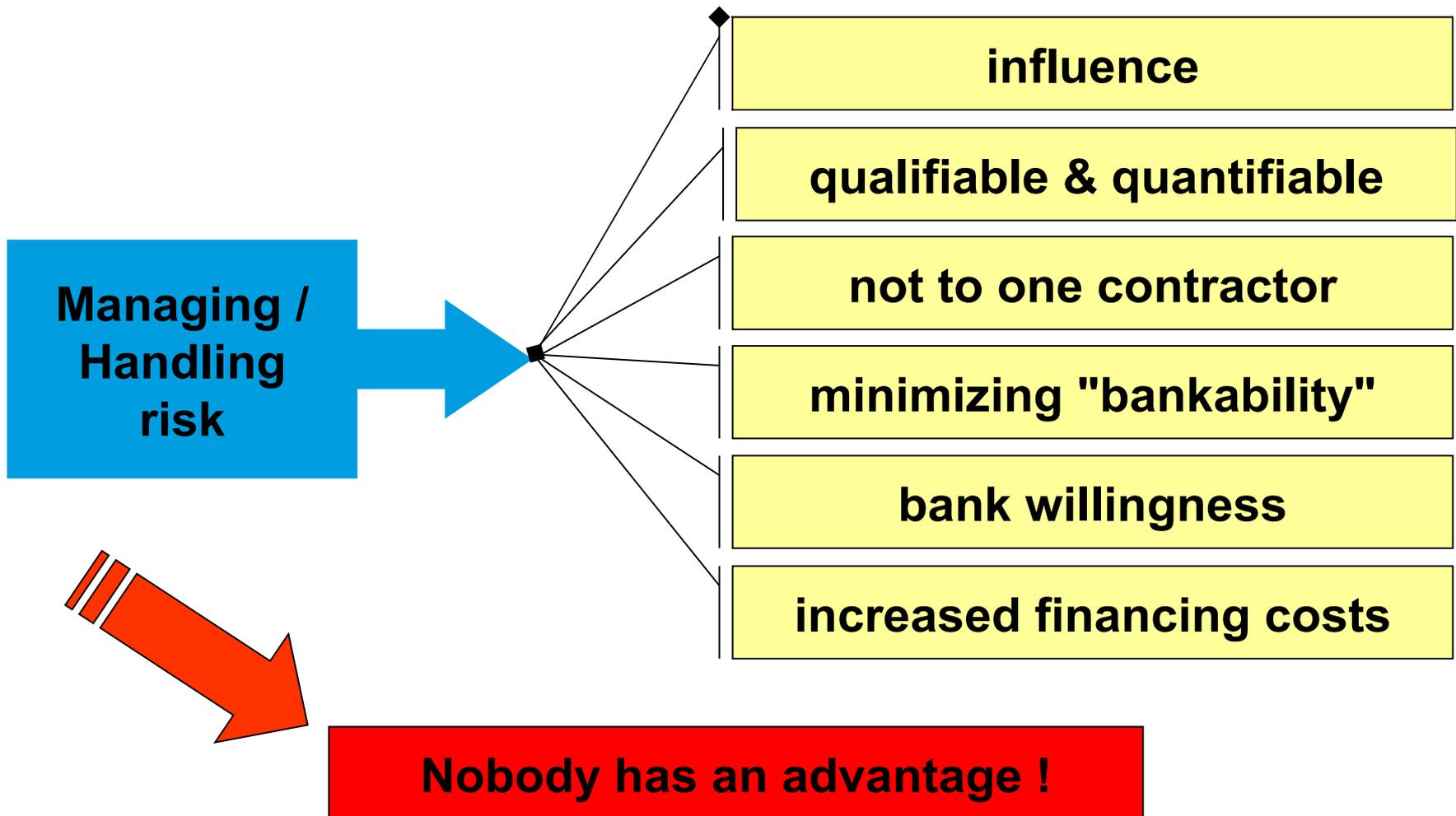
**Risks shall be borne by the partner  
who is best able to manage and handle it !**

**Lenders :**



# PPP: New Financing Trends Impact on Tunnelling Contracts

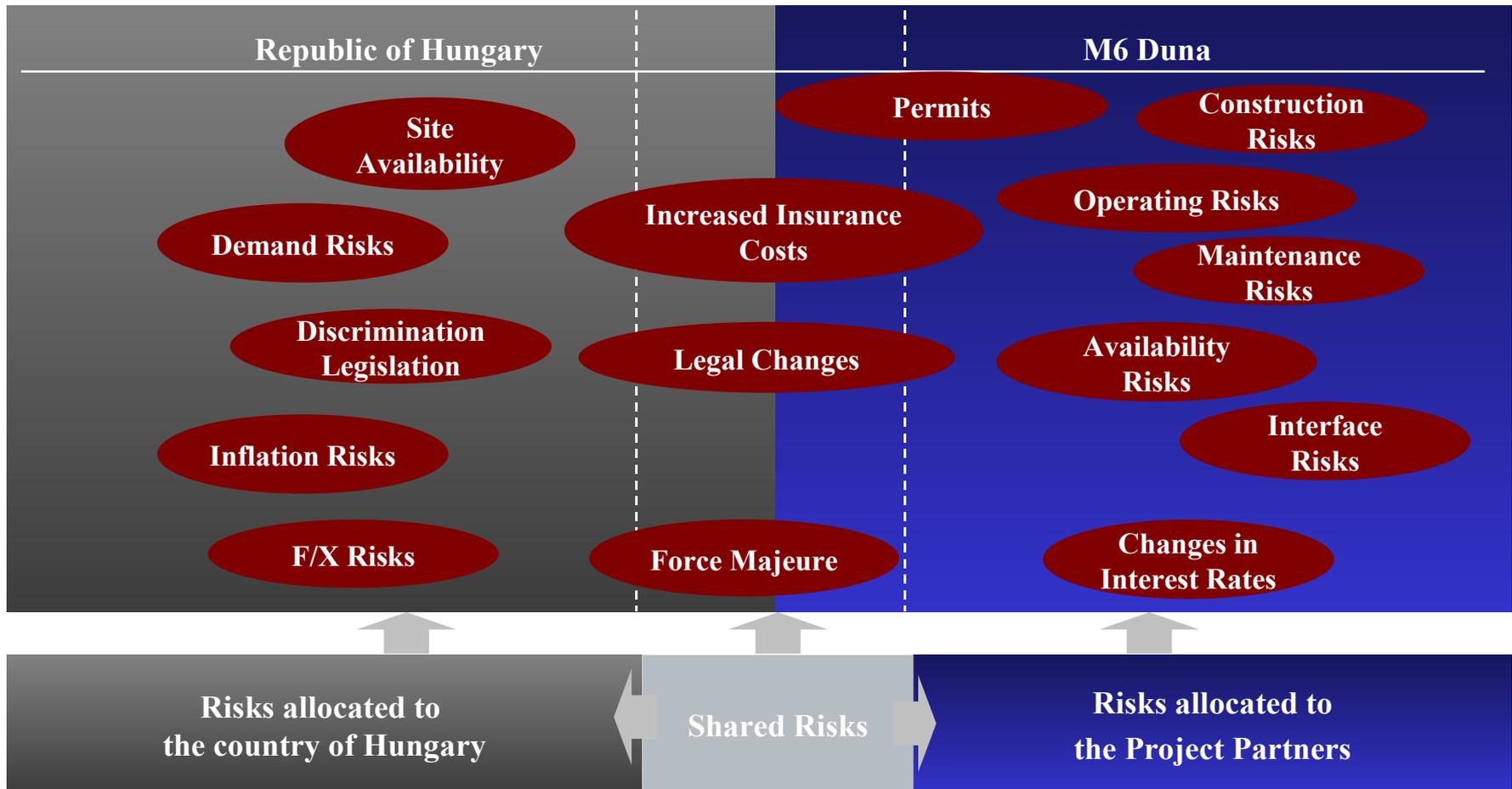
## Risk Transfer Mantra



# PPP: New Financing Trends

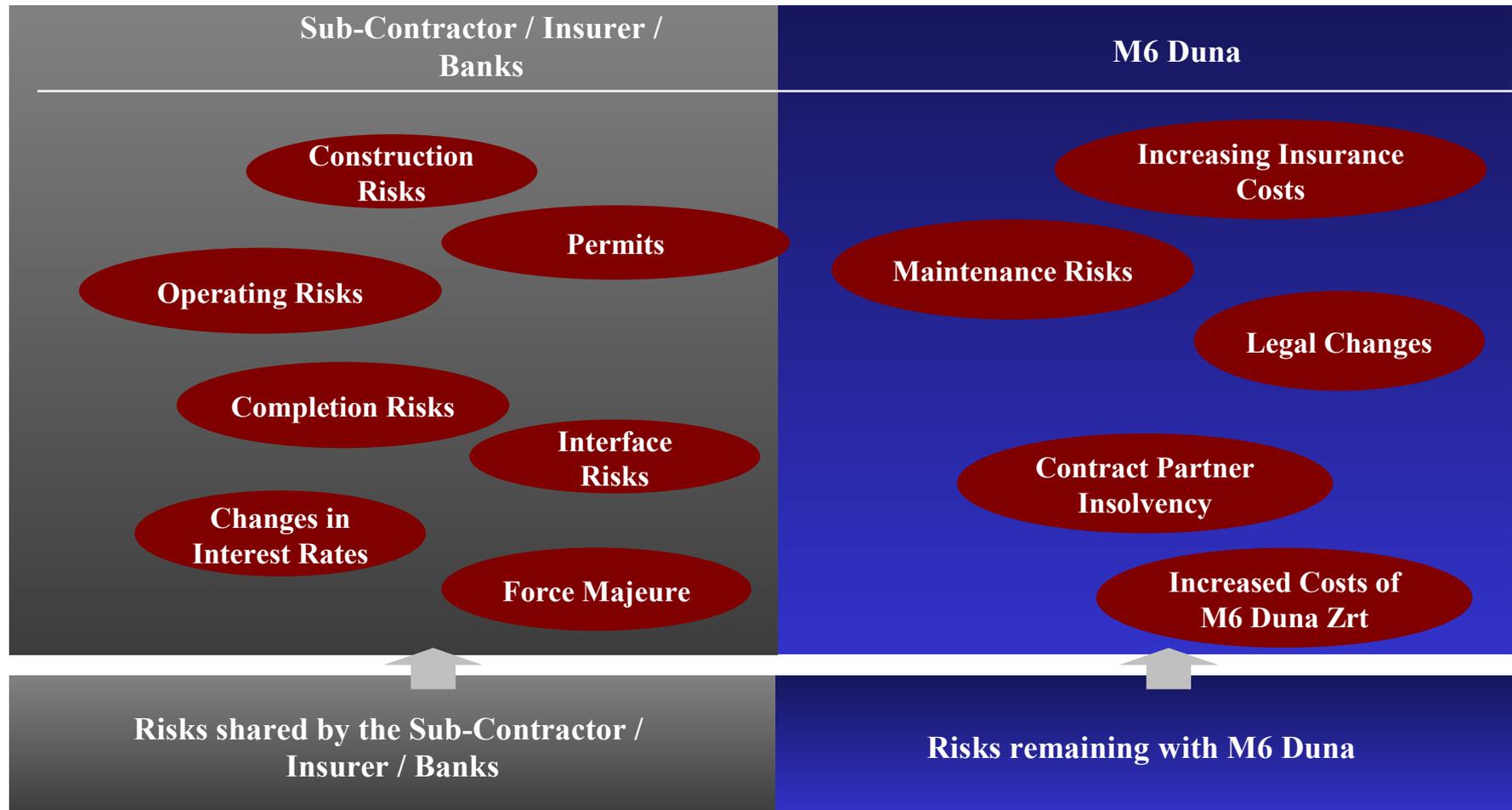
## Impact on Tunnelling Contracts

### Example : Risk Allocation according to the Concession Agreement



# PPP: New Financing Trends Impact on Tunnelling Contracts

## Example : Risk Allocation within „Concession Company“



# PPP: New Financing Trends

## Impact on Tunnelling Contracts

### Typical Risks of a PPP Project versus a Classical Scheme :

#### CONTRACTOR'S Particular Risks in PPP / BOT Projects <sup>1</sup>

|                             |  |
|-----------------------------|--|
| <b>1. Ground conditions</b> | Unforeseeable ground conditions / contamination / soil type / ground water / obstructions / service diversions / archaeological findings |
| <b>2. Design</b>            | Design risks related to multi-party influence: Owner / Authority – SPC – Lenders – Operator – Related Advisors – Engineer                |

<sup>1</sup> In this table the following terms / abbreviations have the following meanings:

CA = Concession Agreement; SPC = Special Purpose Company / Concessionaire; Contractor = Design Build Contractor; Operator = Operation and Maintenance Contractor



# PPP: New Financing Trends

## Impact on Tunnelling Contracts

### Typical Risks of a PPP Project versus a Classical Scheme :

|   |  |
|---|--|
| <b>3. Information and reports</b>               | No warranty for correctness and completeness of reports, including soil investigations, and all other information provided by Owner  |
| <b>4. Change in law + technical regulations</b> | Distinction between discriminatory, i.e., project-related change in law and general change in law including regulatory change and change in specifications/codes/standards. No compensation for general change in law. |
| <b>5. Permits</b>                               | including principal planning approval and environmental approval; in addition terms and conditions of these approvals to be obtained in the future may influence design and/or construction / right of way             |
| <b>6. Protesters' action / trespassers</b>      | Political background may change  |
| <b>7. Fit for purpose</b>                       | Design life  |



# PPP: New Financing Trends

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### Typical Risks of a PPP Project versus a Classical Scheme :

|                                      |  |
|--------------------------------------|--|
| <p><b>8. Utilities</b></p>           | <p>connections of new services into existing systems / modifications to and relocation of existing services : no influence of the Contractor on the Public Utility Organizations</p>   |
| <p><b>9. Force majeure</b></p>       | <p>No compensation by Owner under CA – partly uninsurable risk, risk of increase in premium for insurance cover</p>  |
| <p><b>10. Latent defects</b></p>     | <p>CA requests responsibility of SPC for any latent defects, including existing works constructed by third parties</p>   |
| <p><b>11. Hand-over process</b></p>  | <p>Substantial completion to be defined between SPC and Contractor</p>   |
| <p><b>12. Liquidated damages</b></p> | <p>In standard infrastructure projects the foreseeable damages of the Owner in case of delayed completion are relatively minor. Under a financed PPP the interest to be paid to the Lenders by the SPC has to be taken into account; buffer between scheduled completion date and first repayment should be considered by SPC.</p> |



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### Typical Risks of a PPP Project versus a Classical Scheme :

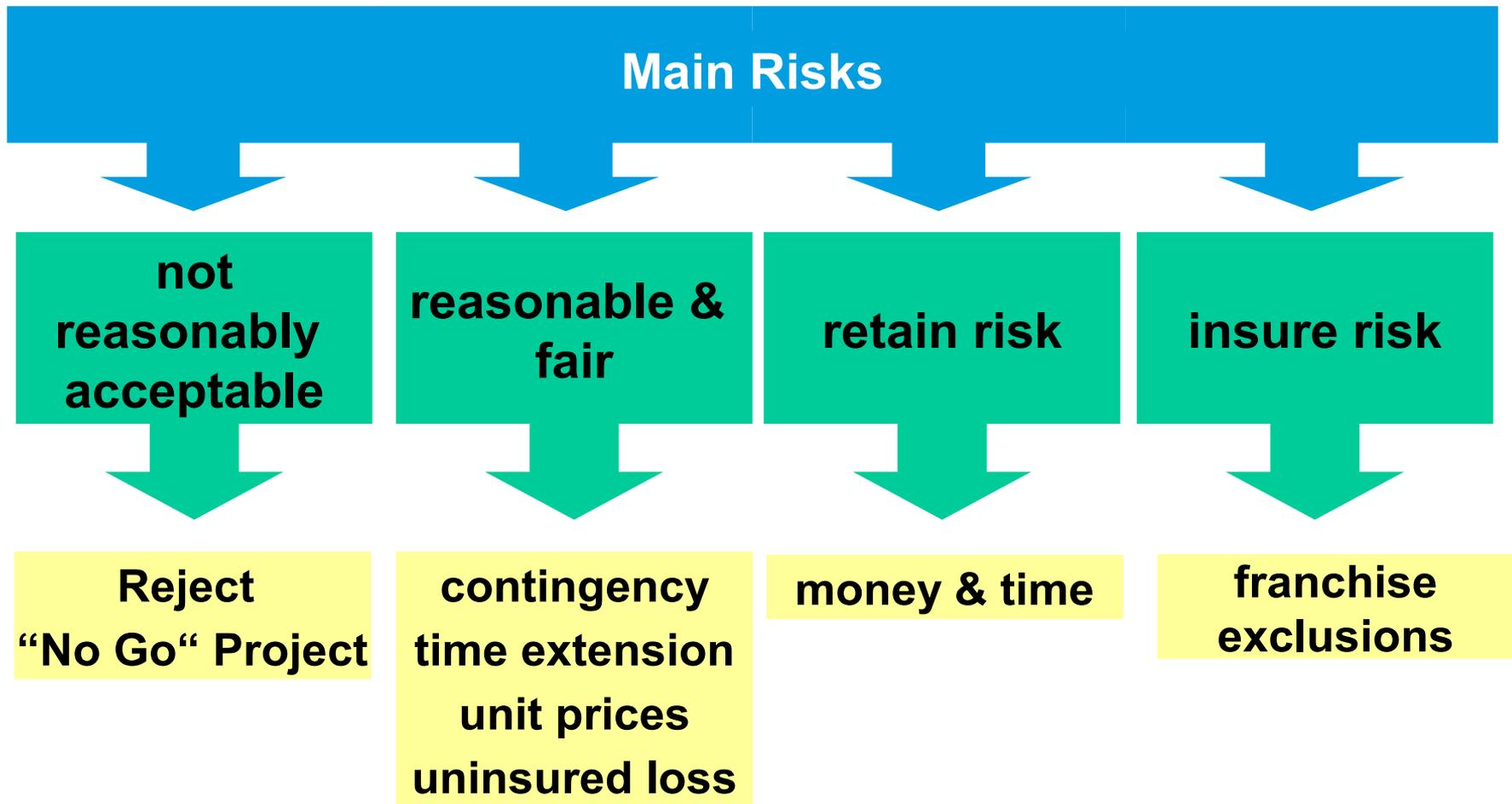
|  |   |
|--|---|
| <p><b>Extension of Time / Liquidated damages</b></p> | <p>In some projects even if an Extension of Time has been granted for delay events (e.g. force majeure) the Contractor is requested to pay liquidated damages if he fails to meet the original completion date.</p>                                 |
| <p><b>13. Warranty periods</b></p>                   | <p>Under PPP structures the warranty periods are extended compared to purely design build projects. If during repair by the Contractor availability payments are reduced by the Owner SPC / Lenders may ask for compensation by the Contractor.</p> |
| <p><b>14. Direct agreement with Lenders</b></p>      | <p>If SPC fails to perform Lenders are entitled to step in and take over the control of the project – including an ongoing construction contract .</p>  |



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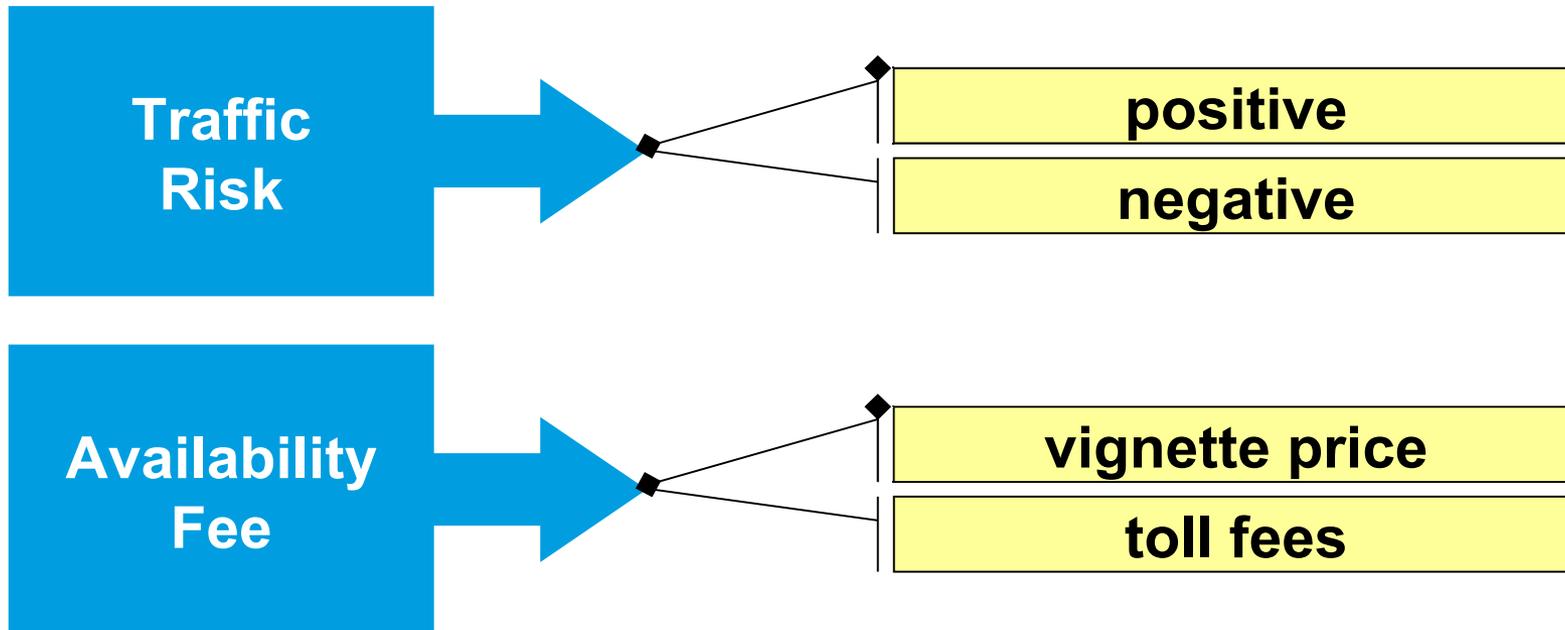
### Risk Sharing / Mitigation



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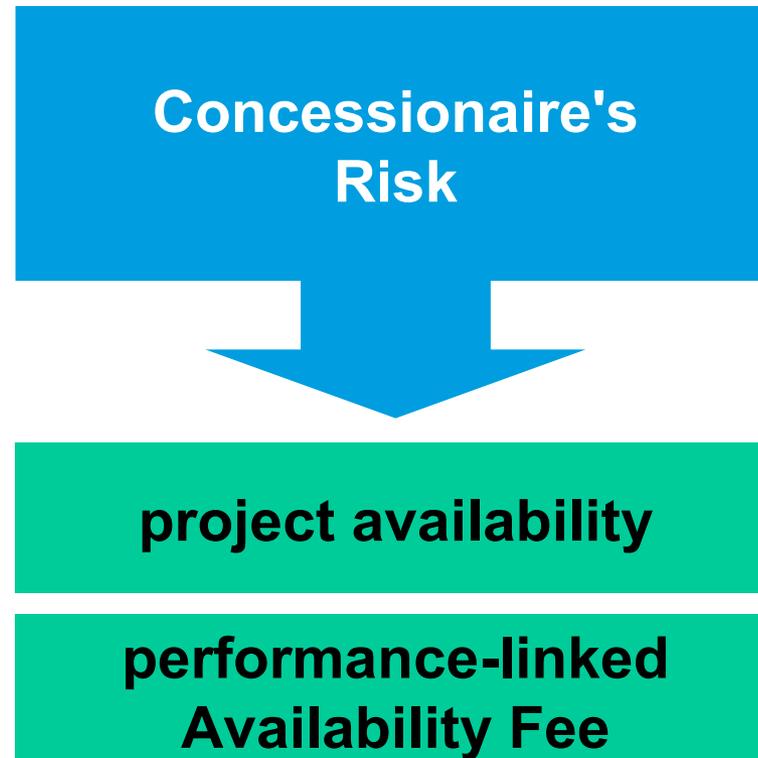
### Availability Fee versus Traffic Risk



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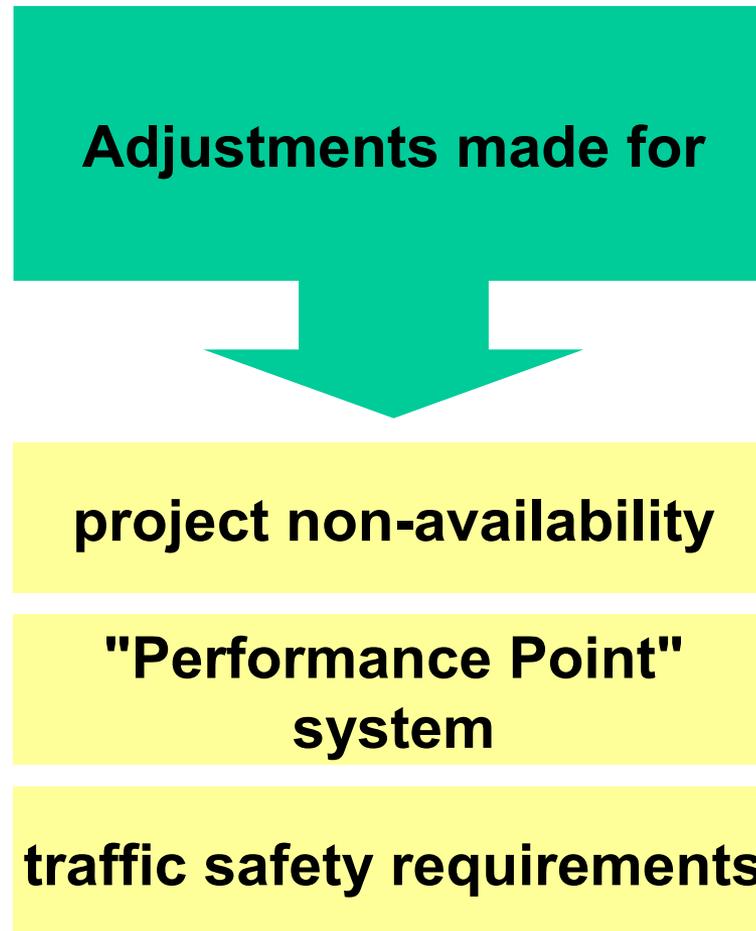
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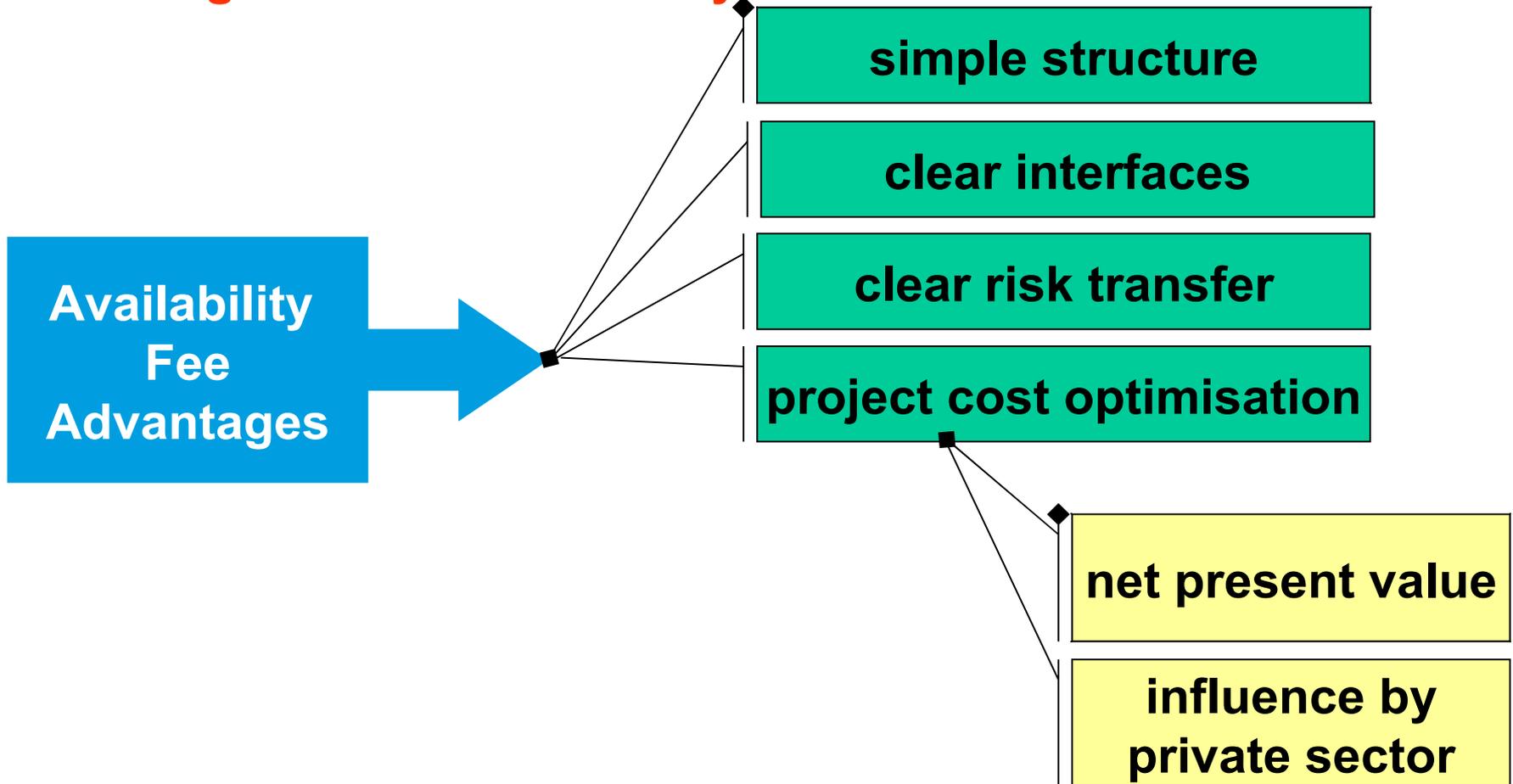
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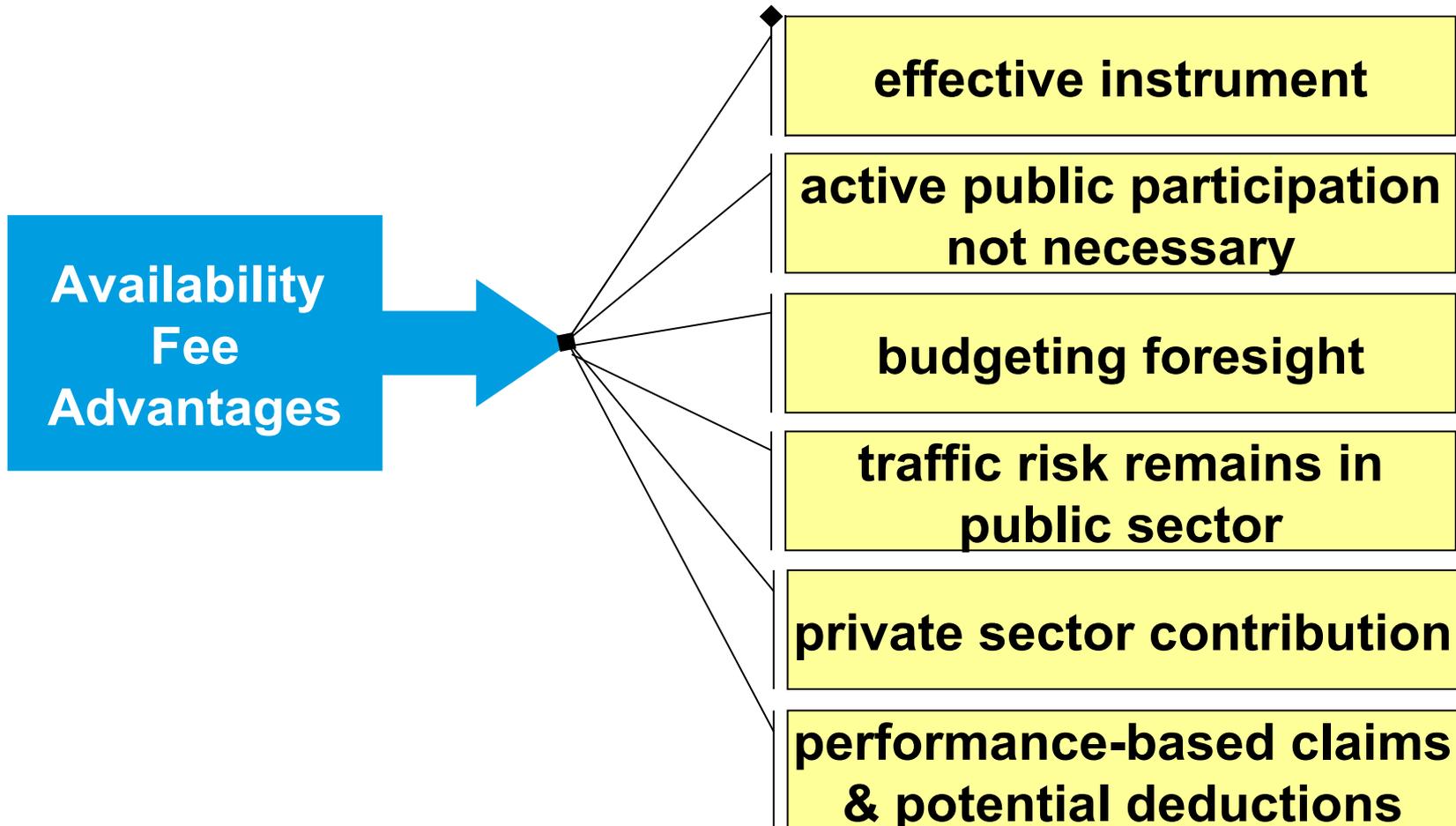
### Advantages for the Availability Fee



# PPP: New Financing Trends

## Impact on Tunnelling Contracts

### Advantages for the Availability Fee



# PPP: New Financing Trends

## Impact on Tunnelling Contracts

### Summary / Conclusion

PPP projects interesting,  
but different rules !

Tender costs high,  
be critical and restrictive !

Understand intentions,  
interests and contractual  
relationships of all parties !

Contractual  
Structure

Investment

Why PPP ?

PPP Part-  
icipation

Risk  
evaluation

Typical Risks

Risk Sharing

Availability  
Fee

Summary /  
Conclusion

# PPP: New Financing Trends Impact on Tunnelling Contracts

## Summary / Conclusion

**Making claims is  
difficult and limited**

**practical risk  
management tools**

**feasible design,  
timeframe &  
related cost  
balance**

Contractual  
Structure

Investment

Why PPP ?

PPP Part-  
icipation

Risk  
evaluation

Typical Risks

Risk Sharing

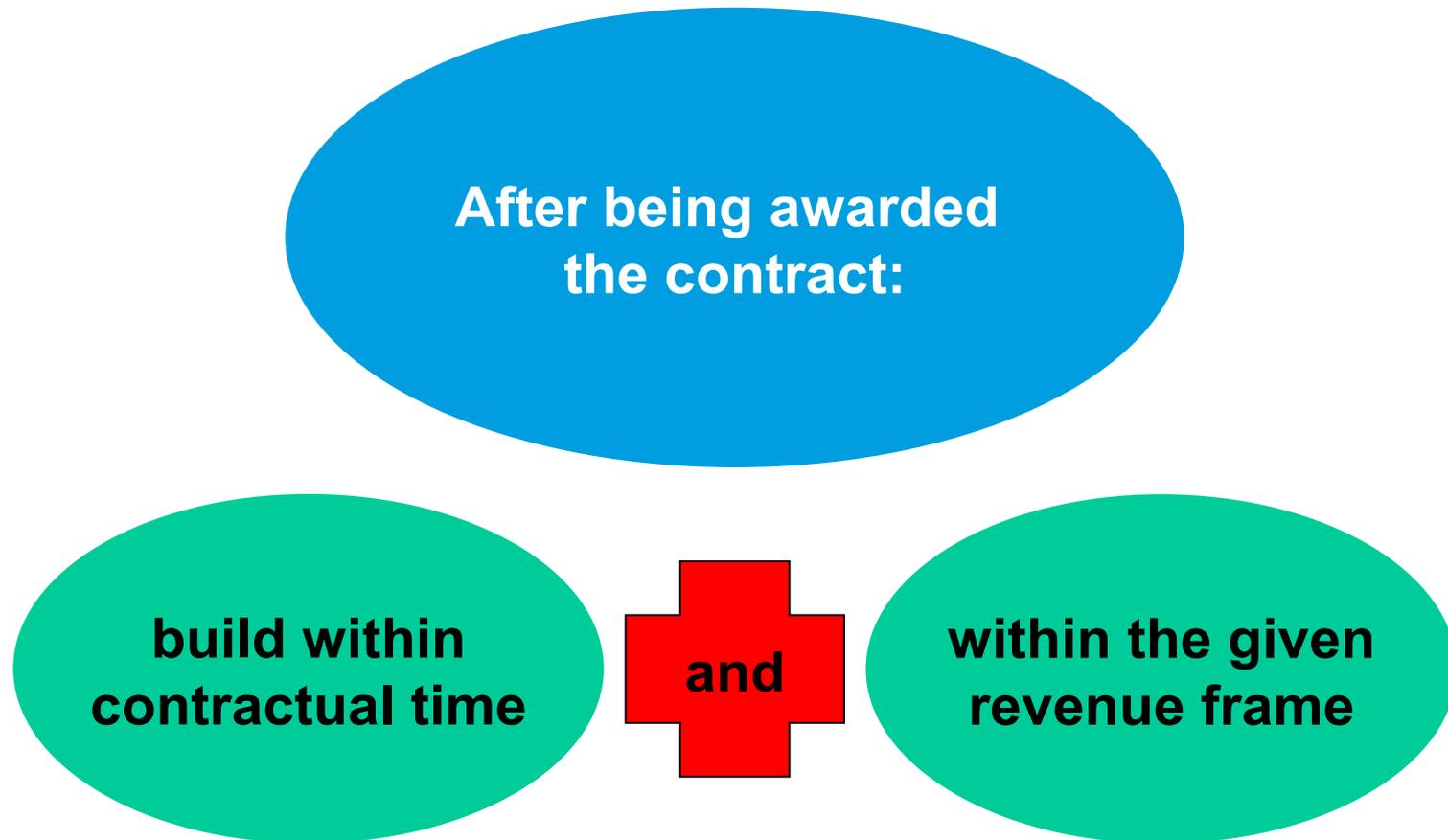
Availability  
Fee

**Summary /  
Conclusion**

# PPP: New Financing Trends

## Impact on Tunnelling Contracts

### Summary / Conclusion





**Thank you for your kind  
attention !**

**GLÜCK AUF !**

