



46TH ASECAP STUDY & INFORMATION DAYS

Efficient concession schemes for motorways?
Dejan Makovšek, ITF, Economist

Grand Hotel Union, Ljubljana, Slovenia
6-8 June 2018

www.asecapdays.com



Organized by

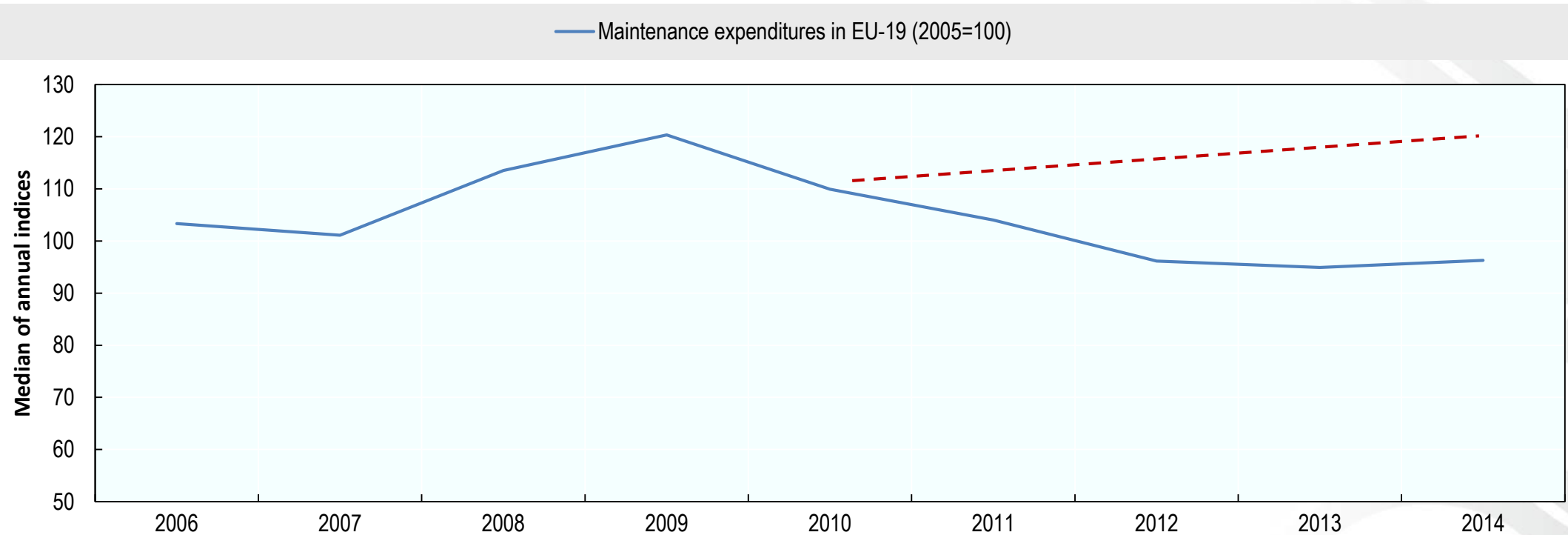


Layers of a concession=PPP ...?

- The existence of a dedicated corporation for the delivery and operation of infrastructure
- Independence in funding from the general budget (user charging)
- Was there a competition for the concession? (is it public or private + is the commitment to the contract credible)

The challenge of public governance

Road maintenance trends in selected countries, 2005-2014, (2005=100)






What other implications might a concession have?

Affecting efficiency:

- **Productive** (building/maintaining the right projects well/for least cost)?
- **Allocative** (preventing roads/bridges to nowhere)?
- **Dynamic** (building the right projects until the public interest rate is below the economy's growth rate => not transferring the burden/cost of our decisions to future generation)?

Efficiency implications of concessions

Efficiency type	Relevance
Productive (cost efficiency)	
Allocative (preventing roads/bridges to nowhere)	
Dynamic (extending the public borrowing constraint)	

What does the research say on “PI” impact on efficiency?



?



Positive



Mixed experience

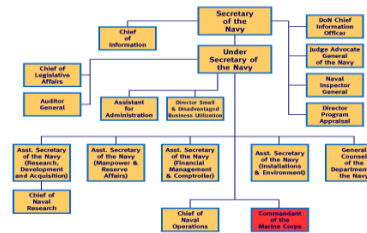


Positive

“Positive” is subject to conditions



+



+

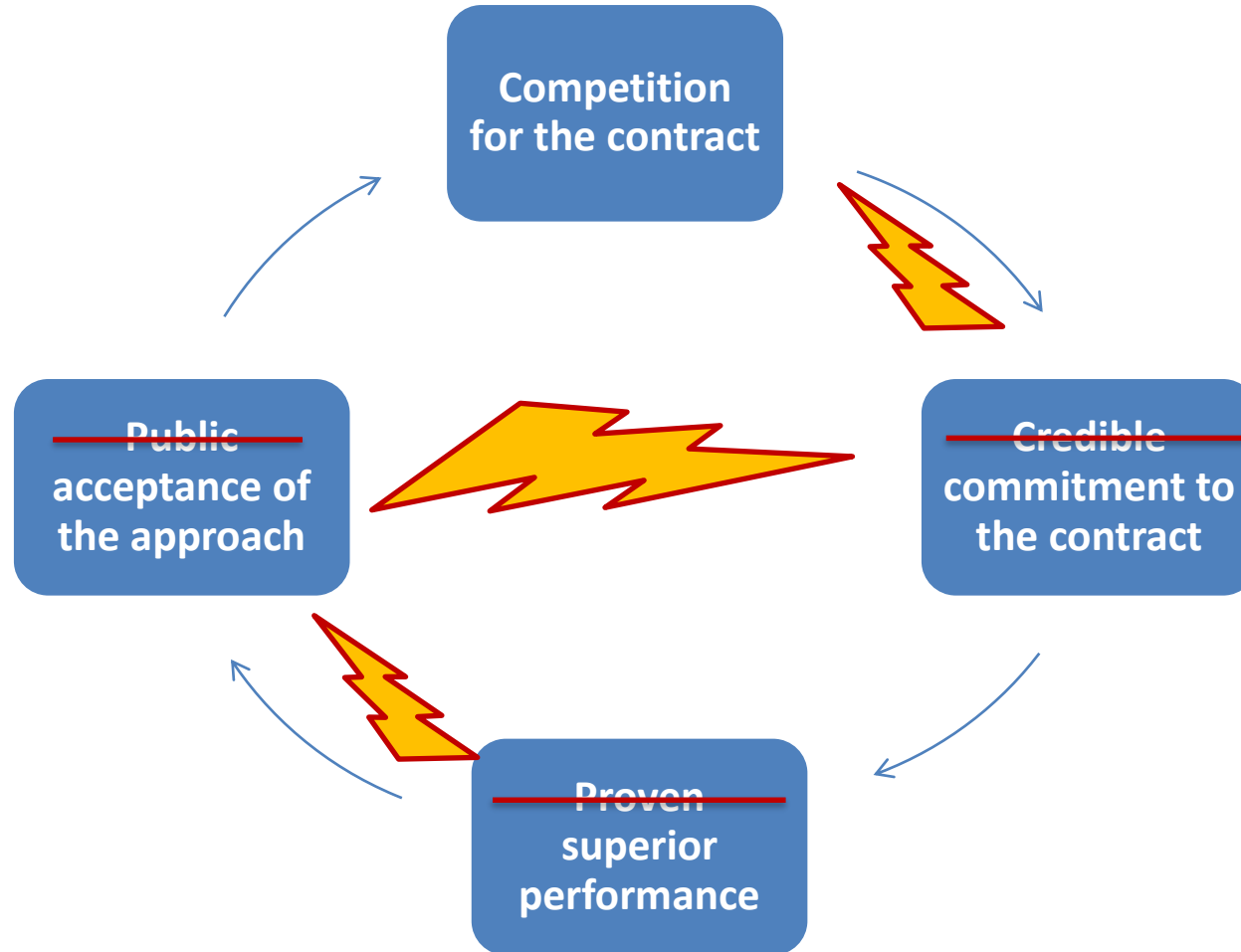


Why do governments resort to private investment

- In transport infrastructure practically all private investment was done through PPPs.
- The political motives in (tentative) order of priority:

Motivation	Existing Assets	New Assets
Cash-in/sale (one-off)	x	n/a
Off-balance sheet treatment	x	x
Efficiency incentives	x	x

A deeper/root issue – what is sustainable PI in infra?



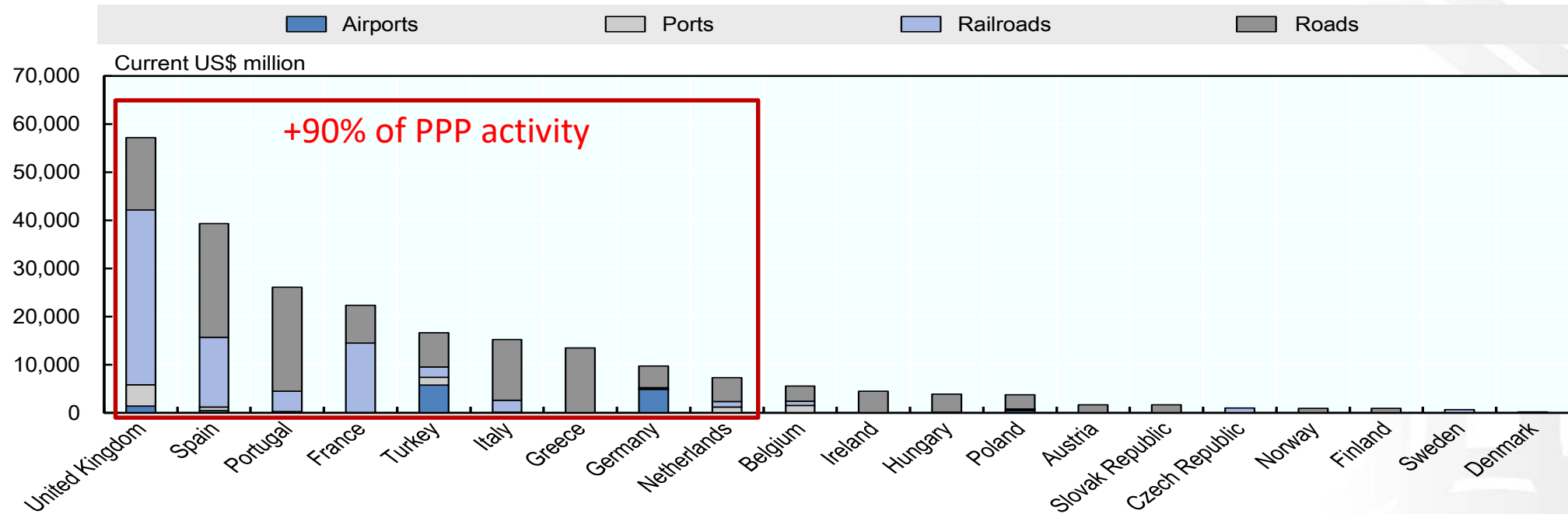
Why is it important to know what PI can do?

- Making choices about PI on the wrong merits will lead to adverse outcomes.
- Choosing PI on the right merits is still unsustainable, if we can't explain them to the civil society or provide evidence!

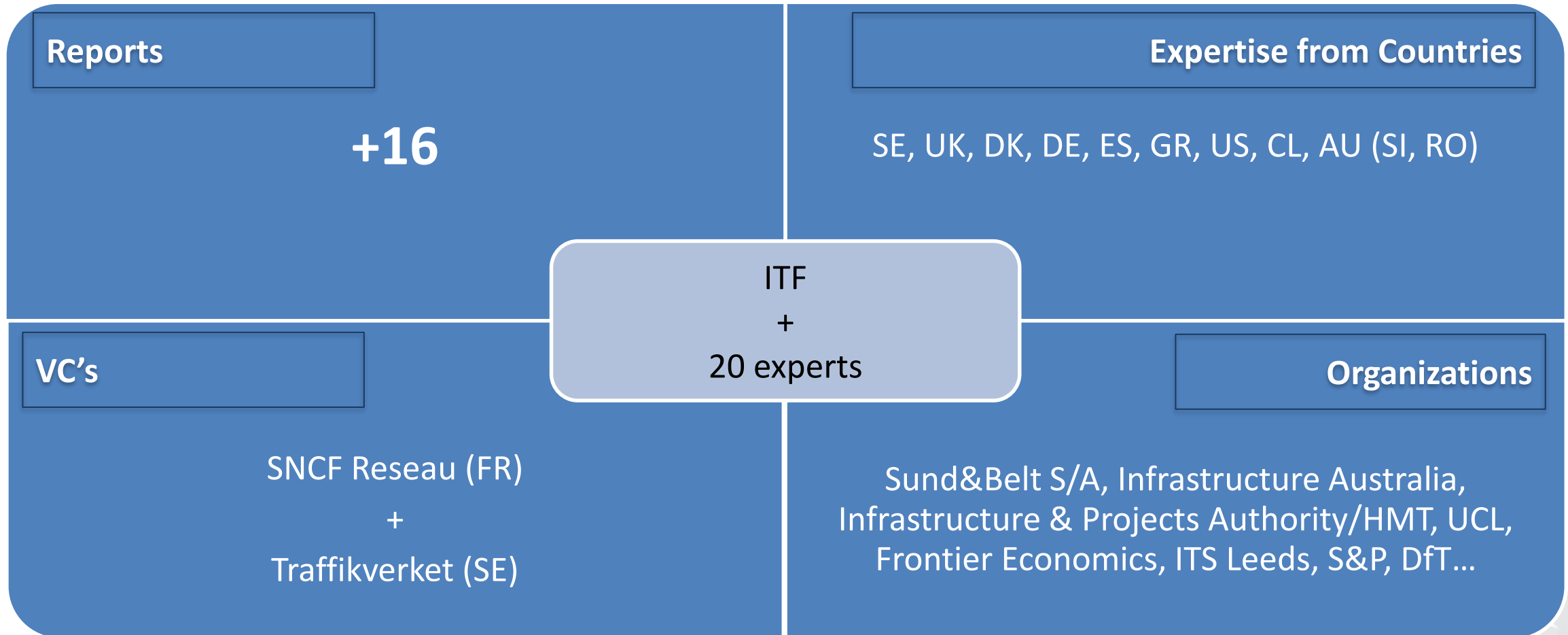


Transport PPPs are concentrated in a few countries

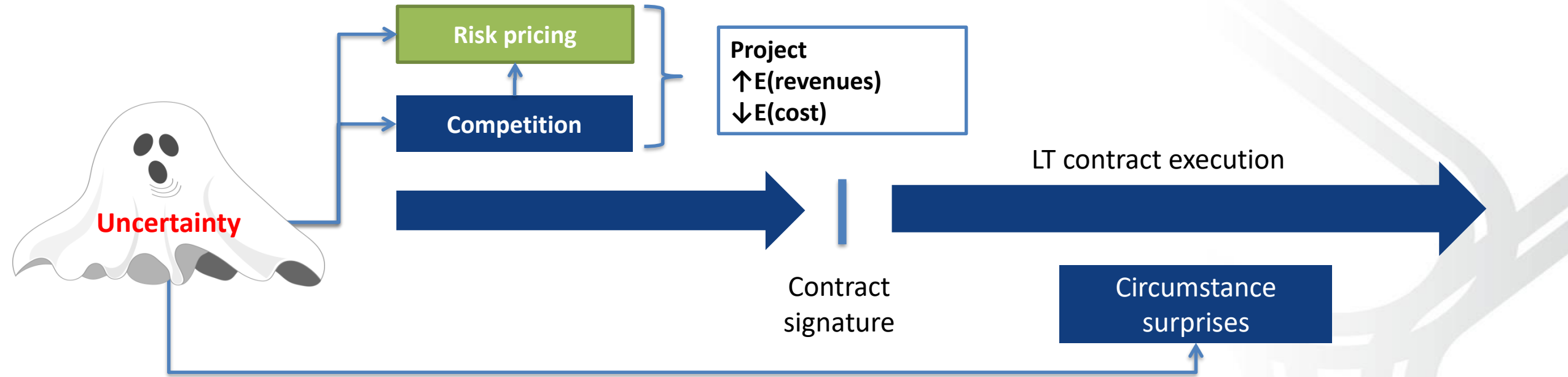
Cumulative Private investment in transport infrastructure per European OECD country and mode, 1995-2014, US\$ million



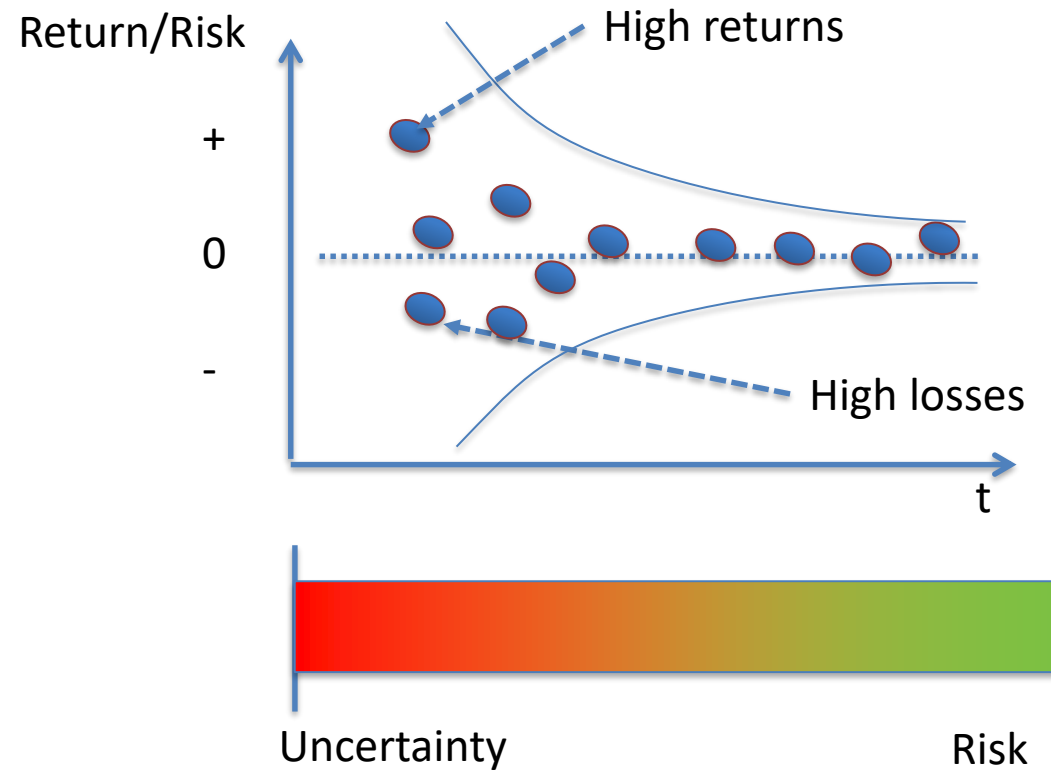
ITF WG on PI in Transport Infrastructure



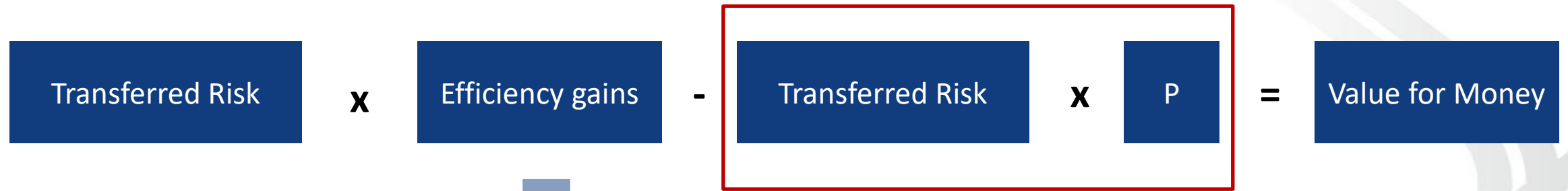
The WG's core objective



How does uncertainty matter – risk pricing (I)



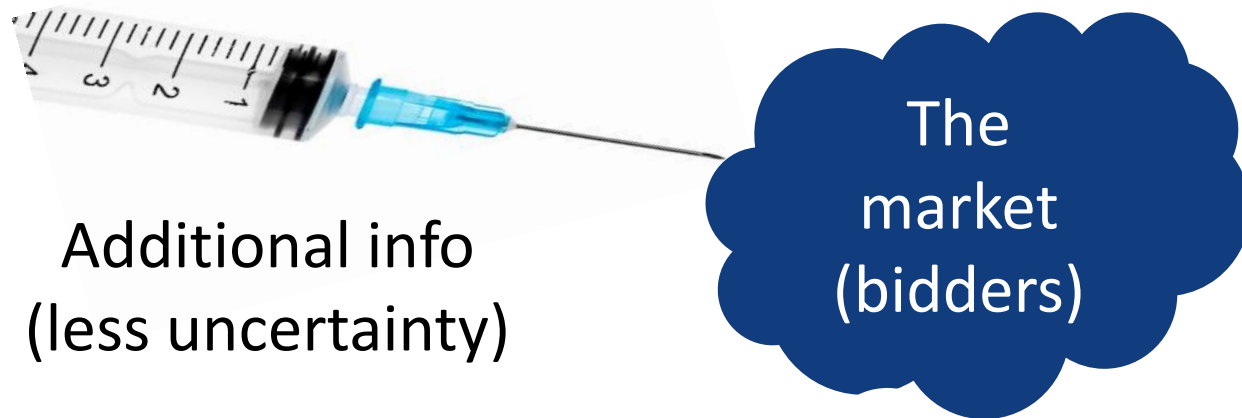
How does uncertainty matter – risk pricing (II)



Project phase bundling (life-cycle costing), less cost overruns/delays, ...

How does uncertainty matter - competition

Oklahoma DoT case – the publication of a detailed estimate (reducing information asymmetry between incumbents and new entrants)

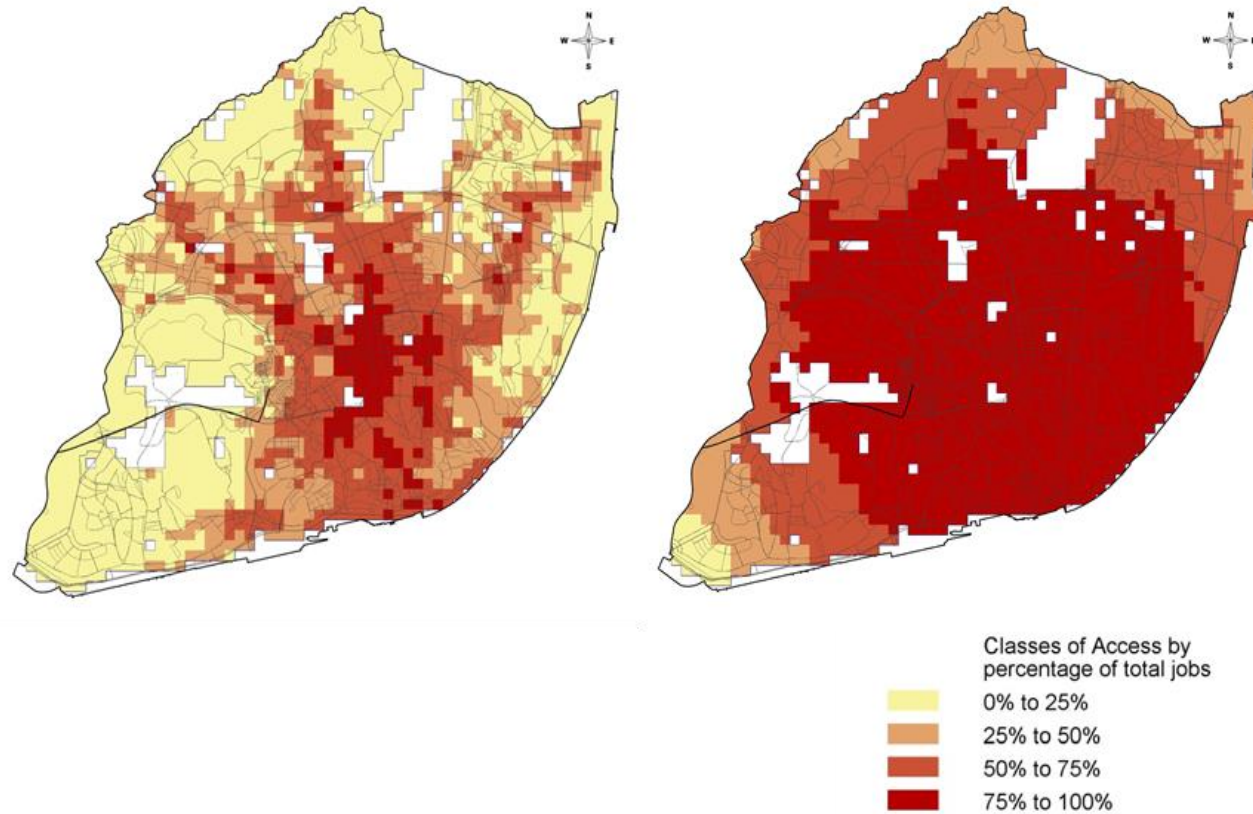


Entrants

- 20% of them now offered lower bids (bid more aggressively)
- On average they stayed longer in the market (+68%).
- Saved the DoT about 5% of procurement cost.

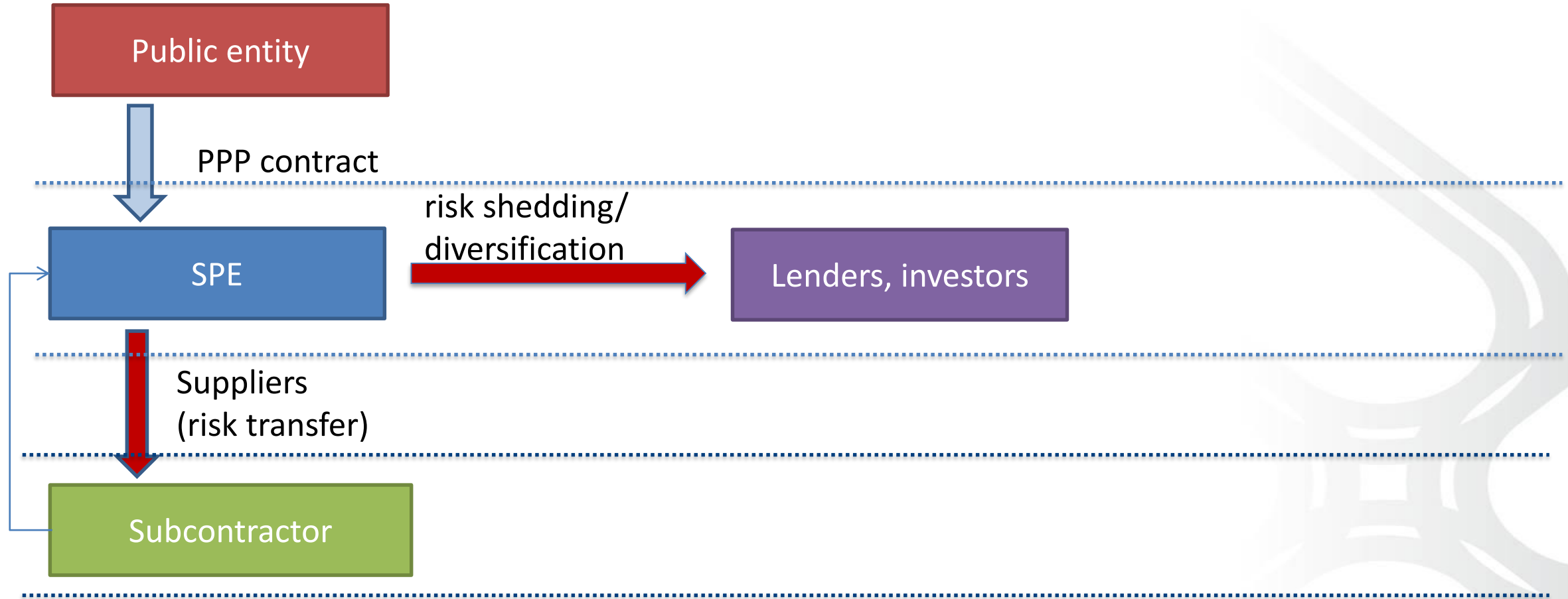
How does uncertainty matter – disruptive events

The accessibility to jobs within 30 minutes in Lisbon – current and in the “taxi-bot” model



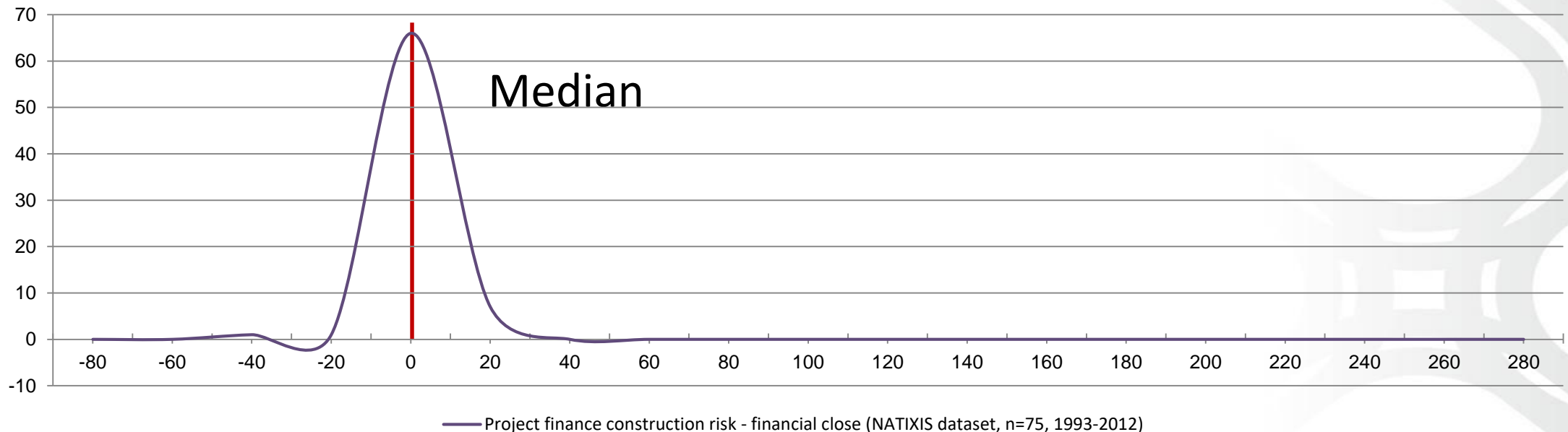
ITF (2016).

How does uncertainty matter – risk pricing revisited



How does uncertainty matter – risk pricing revisited

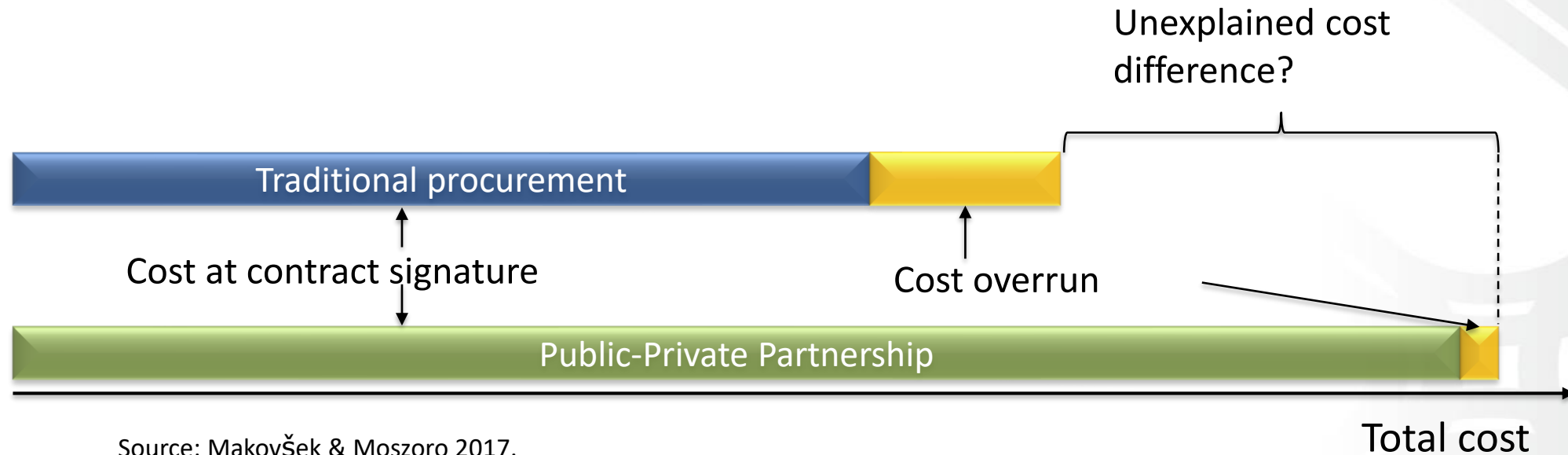
- Observed (median) construction risk for the SPV (outturn cost vs. contract value at financial close) is **zero**.
- “Insurance” against construction risk is effective.



Short-term contracts and complexity

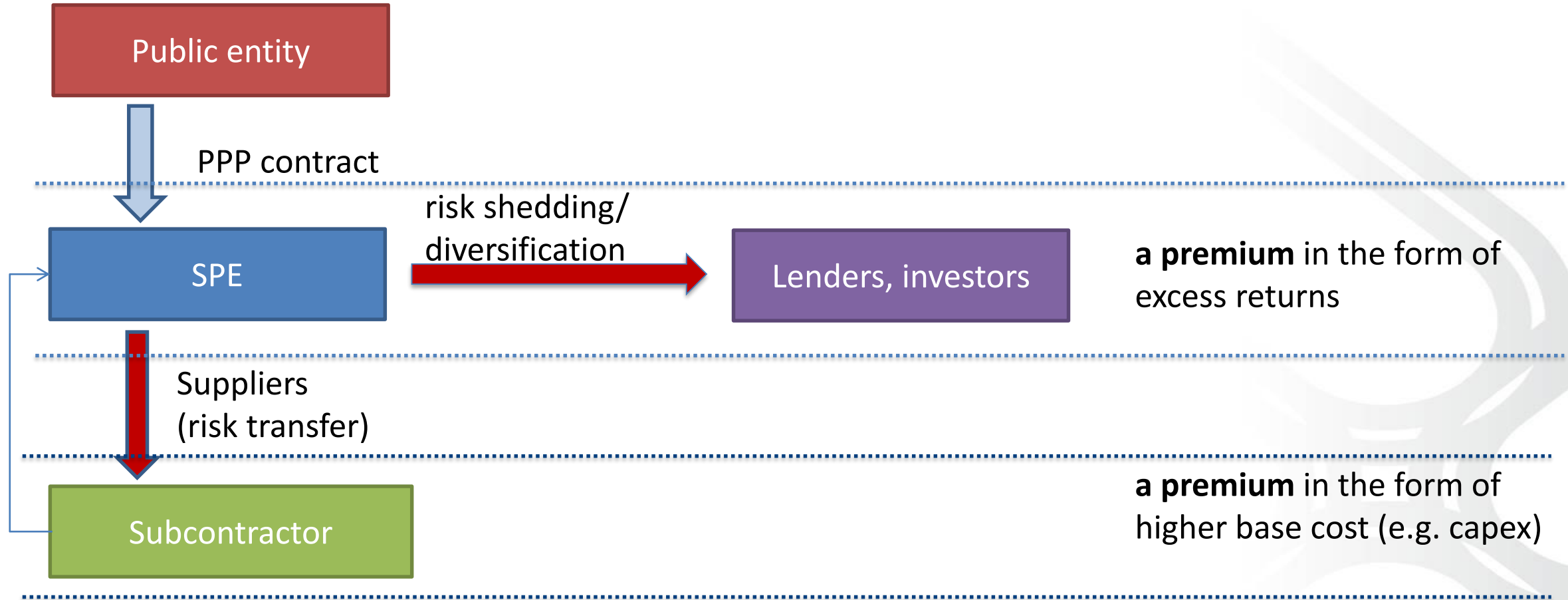
Applying a fixed price contract on a complex project

- Construction risk: risk premium in roads above ex-post risk (+20% in EU), LCC does not explain diff.)



Source: Makovšek & Moszoro 2017.

The emerging image of risk pricing efficiency in a PPP



When are uncertainty and risk pricing a problem?

Year 20
End of
contract

Competition for
the contract



Market type A
Roads, hospitals,
railways, schools...

Market type B
Sea ports, airports,
...

WG solutions to address risk pricing failures (I)

Reducing risk pricing inefficiency – a demonstration for the construction phase

- Greater information provision upfront (e.g. fully costed reference design)
- Use of select collaborative principles during bid preparation (e.g. joint-risk register)
- A critical need to build in-house capacity (e.g. IPA/UK, Sund&Belt Partner/DK...)
-



Risk pricing in infrastructure delivery What can be done to make major infrastructure projects less costly

Discussion Paper No. 2018-xx

*Prepared for the Working Group on
Private Investment in Transport Infrastructure:
Dealing with Uncertainty in Contracts*

Jonathan Kennedy, Aris Pantelas
Bartlett School of Construction and Project Management, UCL, London, United Kingdom
Dejan Makovick
International Transport Forum, Paris, France
Klaus Grewe



Risk Allocation in Danish Mega-Projects

Discussion Paper No. 2018-xx

*Prepared for the Working Group on
Private Investment in Transport Infrastructure:
Dealing with Uncertainty in Contracts*

Leif Vincentsen, Kim Smedegaard Andersen
Sund & Belt Holding A/S

April 2018

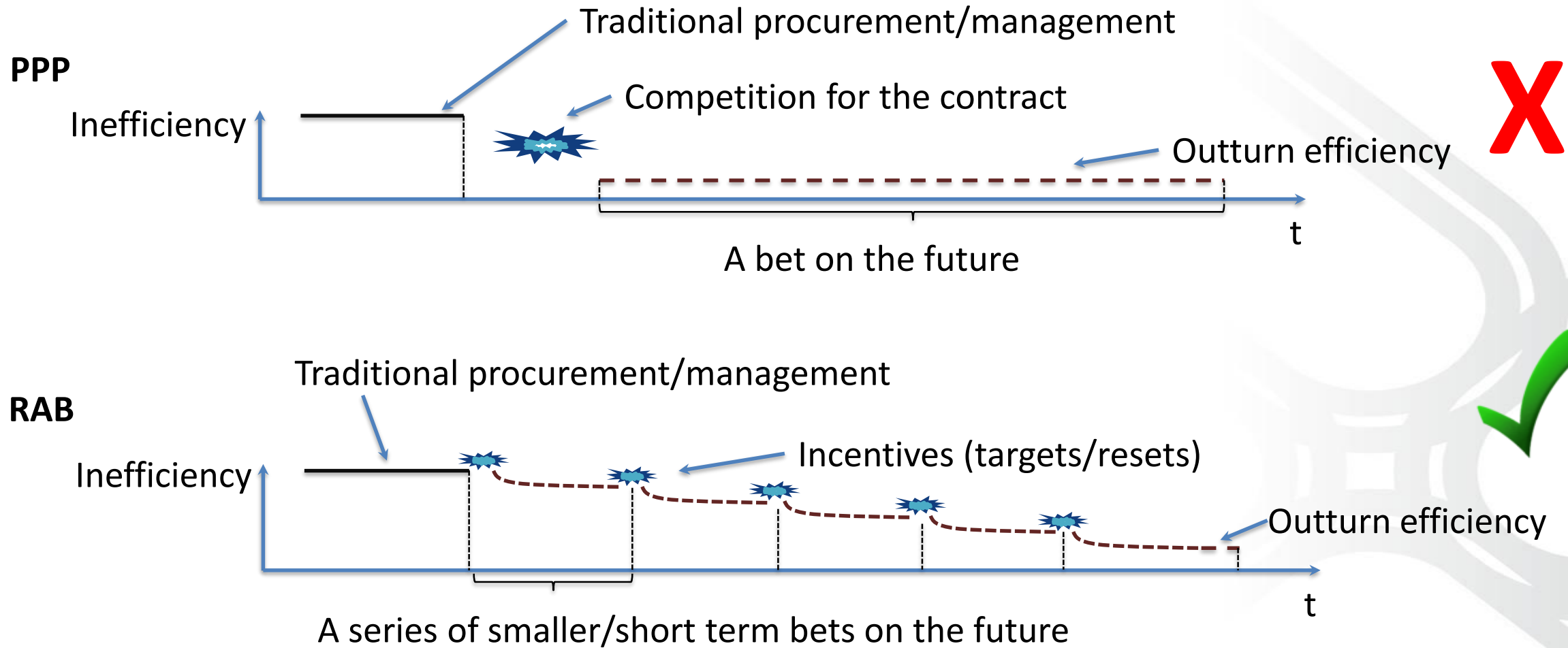


WG solutions to address risk pricing failures (II)

A comprehensive solution in the absence of continuous pressure for efficiency

	PPP	RAB Regulation
Typical Form	Legally binding long-term contract	Legally binding Licence with regular regulatory reviews
Key elements	Required Outputs Risk transfer Remuneration	Required Outputs Service quality Price limits
Productive (cost) efficiency achieved by	Contractual allocation of risk	Fixed prices periodically, renegotiated
Allocative (price) efficiency achieved by:	Initial competition for the contract	Periodic benchmarking
Weakness	High financing cost	Capex bias or incentive to under-invest (if planning transferred to private sector)
Issues	Inadequate process for intertemporal adjustment	Institutional requirements around management of RAB and price determinations

WG solutions to address risk pricing failures (II)



... come to the WG report launch!

22 June 2018

The OECD Congress centre, Paris

Preliminary agenda and registrations at:

<https://www.itf-oecd.org/conference-private-investment-infrastructure>

Thank you!

**Economist, Procurement and Private Investment in Infrastructure Lead
International Transport Forum at the OECD**
dejan.makovsek@itf-oecd.org