



Cornell University



**Cornell** *Program in Infrastructure Policy*

*EDUCATING THE NEXT GENERATION OF INFRASTRUCTURE LEADERS*



# “The Policy and Economic Perspective”

Richard Geddes

Founding Director

Cornell Program in Infrastructure Policy (CPIP)

Committee on Geological and Geotechnical Engineering  
(COGGE) Session

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## Key questions for consideration:

When considering risk management,  
long-term, and lifecycle performance of  
infrastructure . . .



1. How do you learn to value geo-related input in your thinking?
2. How do you incorporate geo-related input into your work?
3. How and when do you generally request or otherwise obtain the geo-related input you use? How do you know what input to request?
4. What are the most effective ways geo-professionals can provide input to non-geo-professionals?

*How do you learn to value  
geo-related input in your thinking? (1)*

Geo-related issues are usually incorporated  
into economic and policy analysis via  
the study of infrastructure *delivery*

“Delivery” includes facility design,  
construction, operation, maintenance,  
and financing

*How do you learn to value  
geo-related input in your thinking? (2)*

Geo-related issues are most salient with  
regarding to the *risks associated with  
each element of delivery*

Most salient with regarding to design and  
construction?

# *How do you incorporate geo-related input into your work (1)*

CPIP focuses on *innovative and alternative delivery models*

That is in contrast to *traditional delivery* in the United States:

- Use of tax-exempt muni bond financing
- Use of design-bid-build bidding approach
- Taxpayer/owners retain almost all risks

## *How do you incorporate geo-related input into your work (2)*

Innovative and alternative delivery models include *public-private partnerships, value capture, asset recycling, tax-increment financing*

All require *greater cooperation* between the public and private sectors



## *How do you incorporate geo-related input into your work (3)*

*Innovative and alternative delivery models* involve a public-sector project sponsor/infrastructure owner and a private-sector partner

Private partner typically a special-purpose vehicle (SPV) set up specifically for the project

SPV is a consortium of private firms

# *How do you incorporate geo-related input into your work (4)*

*One major alternative delivery model globally is the public-private partnership*

Three key elements:

- *Bundling* of the five delivery elements into one contract
- *Long-term relation* between public-sector project sponsor and private partner
- *Shifting of major project risks* from taxpayer-owners to private partner (typically equity investors in the SPV)

# *How do you incorporate geo-related input into your work (5)*

Geo-related inputs are critical in a PPP:

- \* PPP contract requires the *clear delineation of risks* over entire project lifecycle
- \* PPP contract requires the *clear assignment of risks* to one party or the other
- Risks will typically be assigned to the party *who can bear the particular risk at least cost*
- Risk will be *priced into the bid* if transferred to private partner

*How and when do you generally request or otherwise obtain the geo-related you use?*

Geo-related information would be requested when it relates to the study of risks delineated and allocated via an innovative delivery contract

*What are the most effective ways geo-professionals can provide input to non-geo-professionals? (1)*

Geo-professionals should consider carefully who *will benefit most from their input*

In innovative delivery that *prices and transfers risk*, they should seek out those who will bear the risk

*What are the most effective ways geo-professionals can provide input to non-geo-professionals? (2)*

Public or private entities that will bear geo-technical risk *have an incentive to better manage that risk* (which includes the best geo-technical information available)

Geo-professionals should make findings *accessible to contracting parties*, and couch findings in terms of better risk management/costs saved



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