

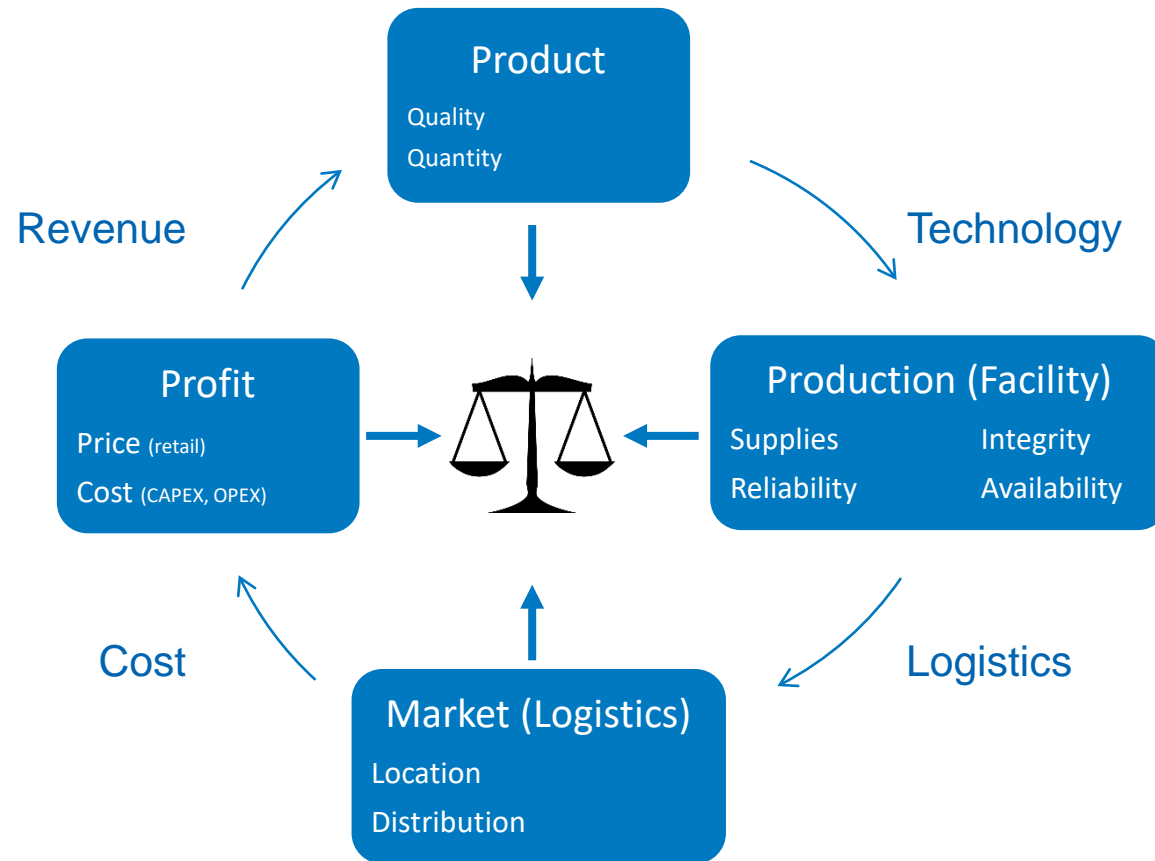
Risk in Contracts

A zero sum game?

Contents

- Introduction
- Business Case Owner
- Factors influencing Business Case Owner
- Risks
- Parties to share
- Moving panels (priorities)
- Allocating risk in contracts
- Summary

Business Case Owner



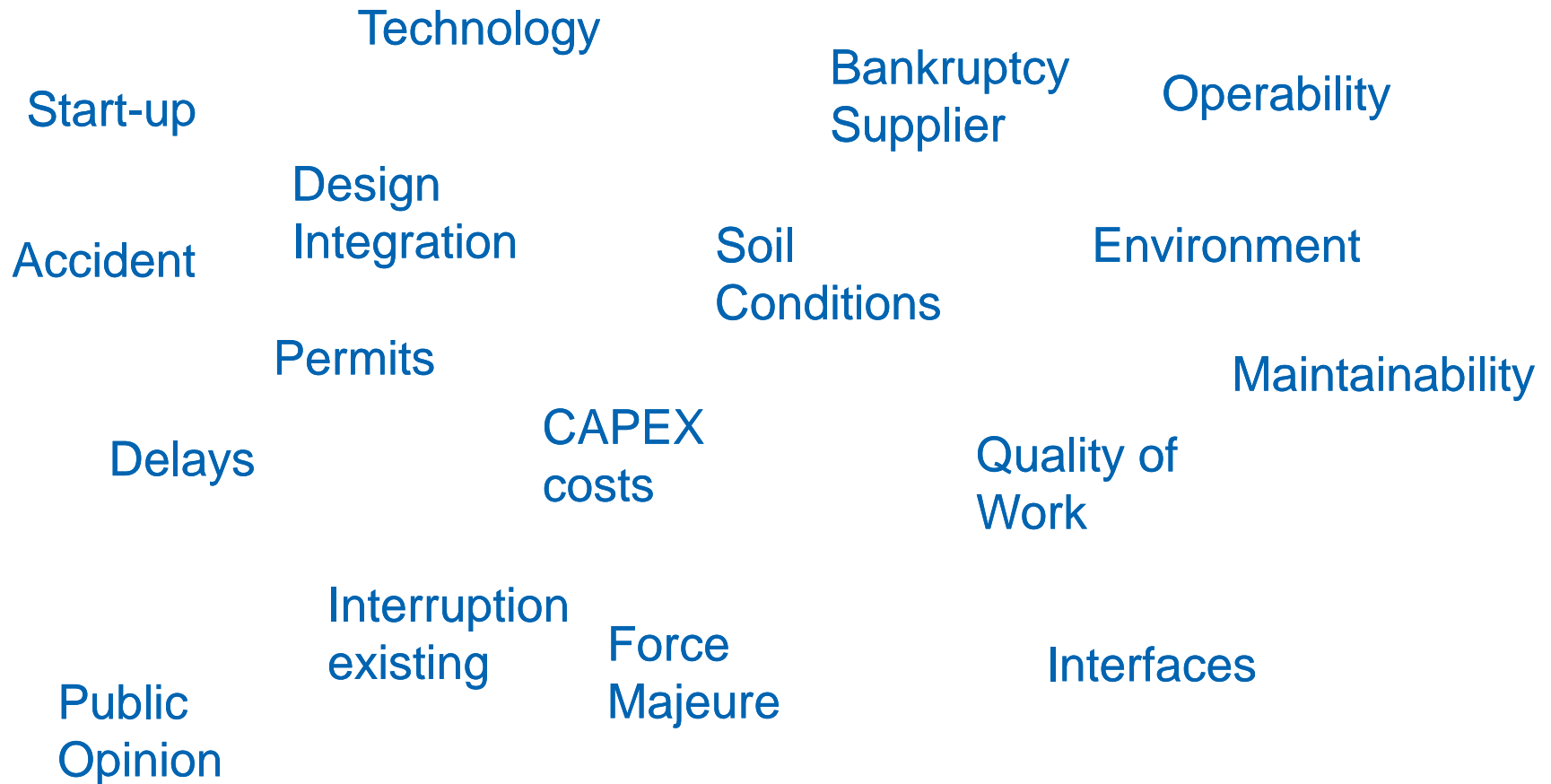
Factors influencing Business Case

Business Case Element	Product		Production (Facility)					Market (Logistics)		Profit	
	Quality	Quantity	Technology	Integrity	Reliability	Availability	Prod. Supply	Location	Distribution	Cost	Price
Build Production Facility			✓	✓	✓	✓		✓		✓	
Not up to specification	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Design	✓	✓	✓	✓	✓	✓		✓		✓	
Procurement			✓	✓	✓	✓				✓	
Construction				✓	✓	✓		✓		✓	
Start-up			✓	✓	✓	✓	✓			✓	
Operations & Maintenance	✓	✓		✓	✓	✓				✓	
Permits			✓	✓		✓		✓		✓	
License to Operate			✓	✓		✓		✓		✓	
Accidents			✓	✓		✓				✓	
Force Majeure				✓		✓				✓	
Reputation (Quality, Warranty)	✓			✓	✓		✓				✓
Reputation (Supply)		✓		✓		✓	✓				✓

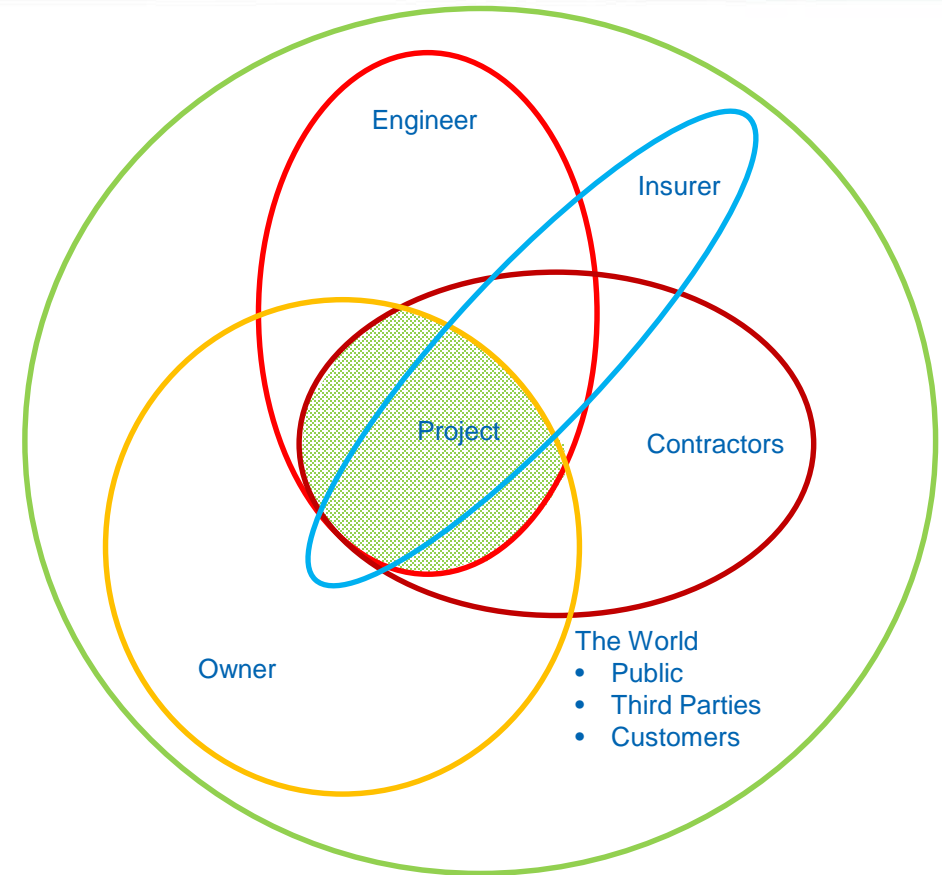
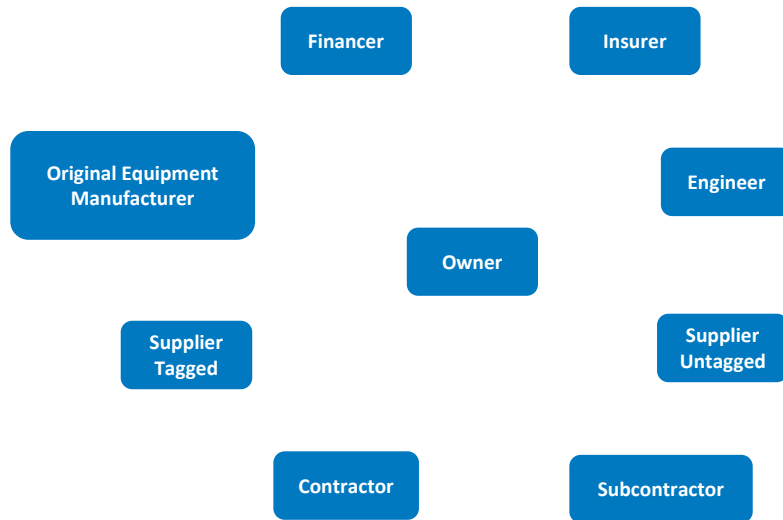
Factors influencing Business Case

Business Case Element	Product		Production (Facility)					Market (Logistics)		Profit	
	Quality	Quantity	Technology	Integrity	Reliability	Availability	Prod. Supply	Location	Distribution	Cost	Price
Build Production Facility			√	√	√	√		√		√	
Not up to specification	√	√	√	√	√	√	√	√		√	√
Design	√	√	√	√	√	√		√		√	
Procurement			√	√	√	√				√	
Construction				√	√	√		√		√	
Start-up			√	√	√	√	√			√	
Operations & Maintenance	√	√		√	√	√				√	
Permits			√	√		√		√		√	
License to Operate			√	√		√		√		√	
Accidents			√	√		√				√	
Force Majeure				√		√				√	
Reputation (Quality, Warranty)	√			√	√		√				√
Reputation (Supply)		√		√		√	√				√

Risks



Parties to share



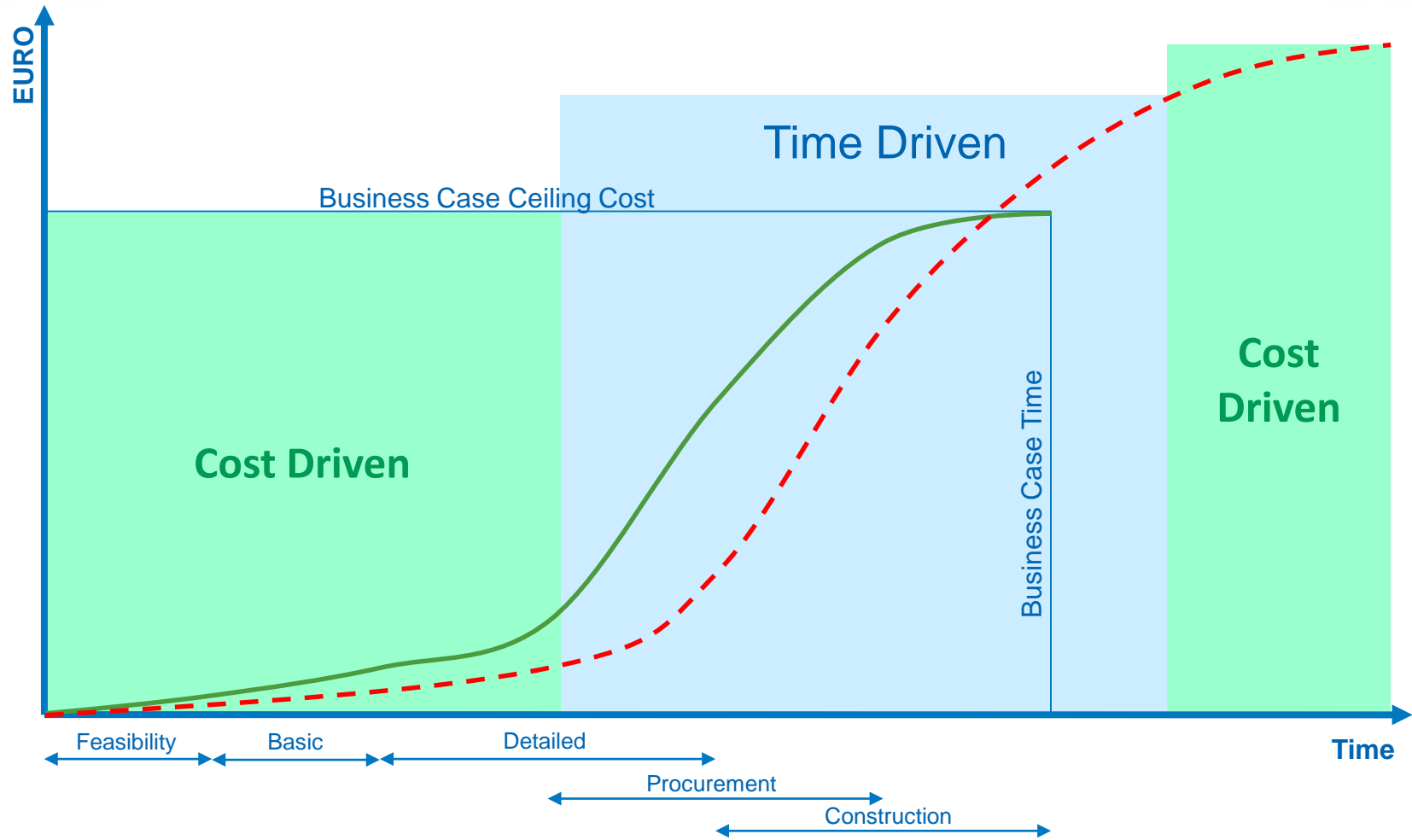
Additional Risks

- (Contractual) interfaces
 - Procedures
 - Records
- Sub-optimization
 - Own production
 - Own profit

Insured Risks

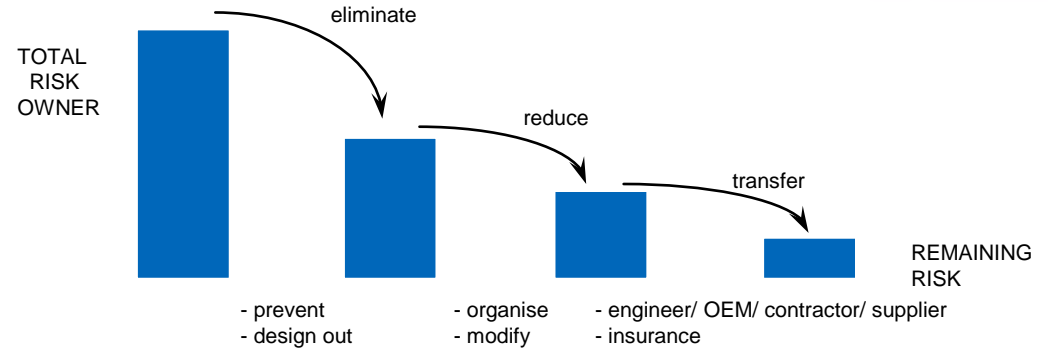
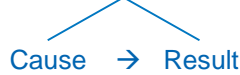
- CAR
- Professional Indemnity
- 3rd Party Liability
- Property Damage & Business Interruption

Moving panels (priorities)



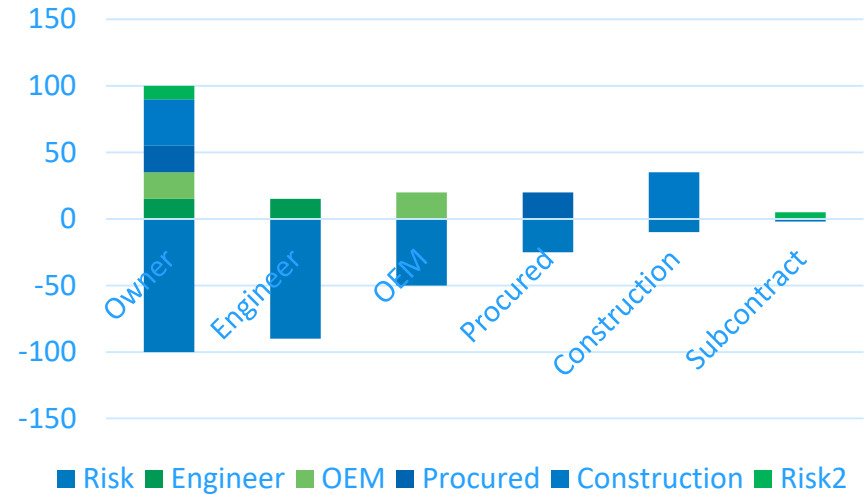
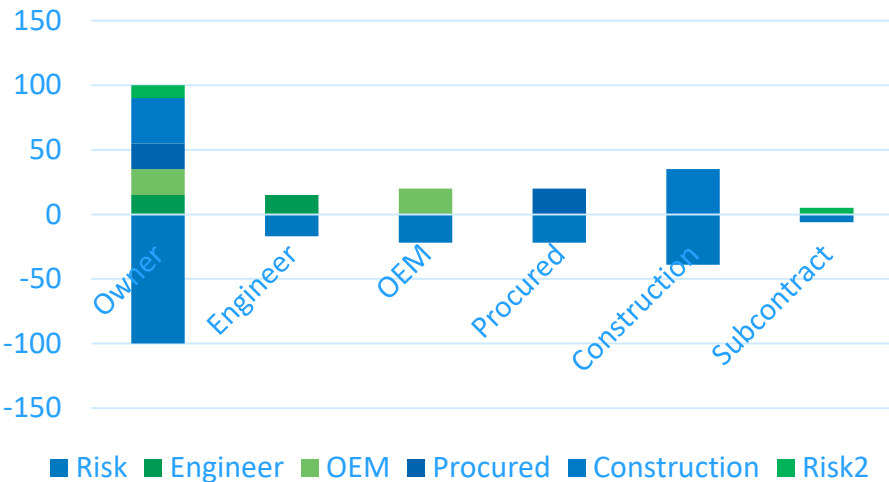
Allocating risks in contracts

Risk = Effect x Chance



Risk vs. Revenue

Risk vs. Impact



Summary

- Owner has (all) risks
- Owner wishes to transfer risks in supply chain
- Supply chain adds risks
- Success (risk) focus changes (cost → time → cost)
- Risk transfer: discrepancy between impact and “fair and reasonable” considering revenue
- What is “good practice” for B.V. Netherlands