



Risk & Insurance solutions for Energy **Energy Seminar, Bucharest May 31, 2011**

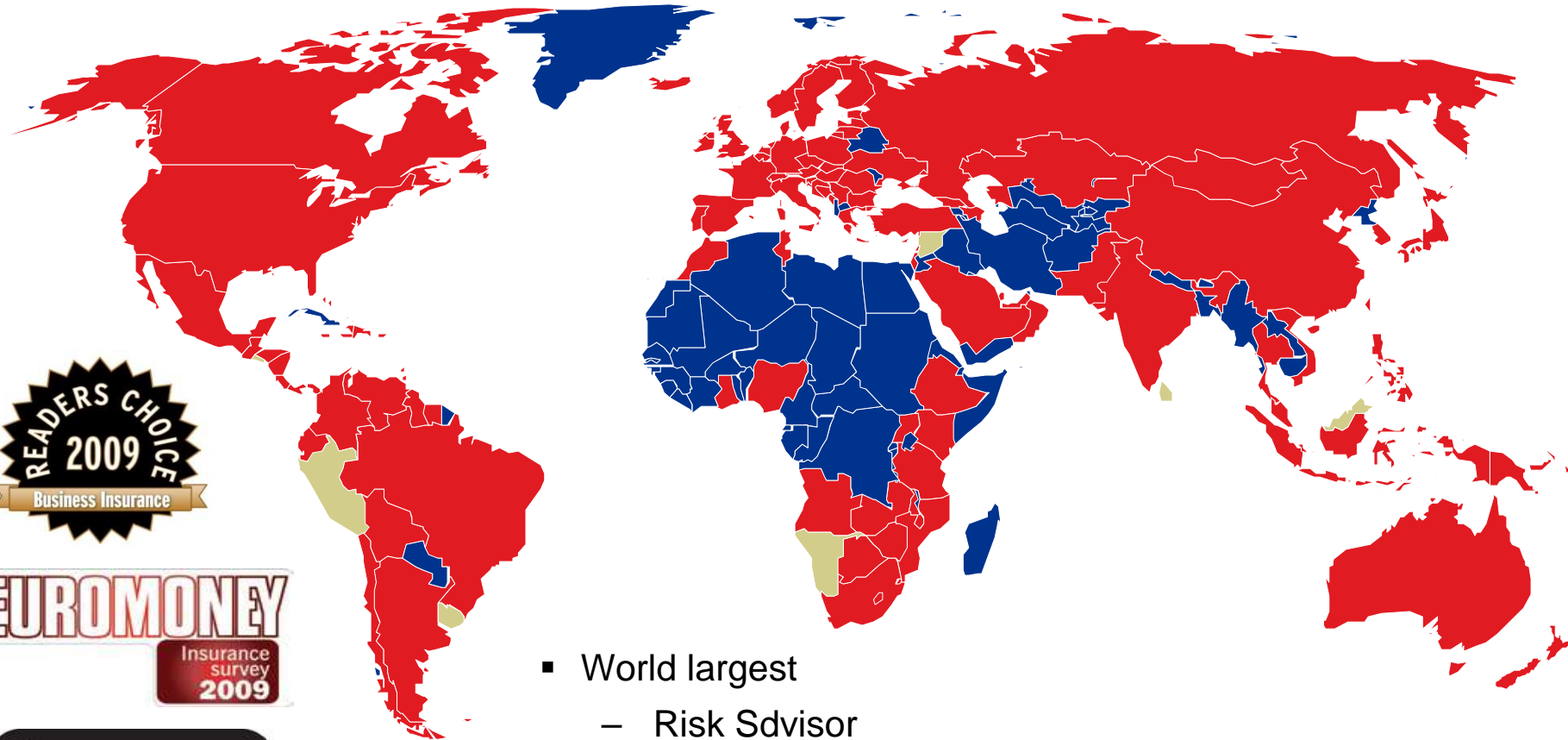
Jaap Veenenbos | Regional Director Global Risk Consulting, Aon Central Eastern Europe

Agenda

1. Introduction Aon
2. Energy supply chain – key issues
3. Project finance
4. Lowest Total Cost of Risk
5. Contact details

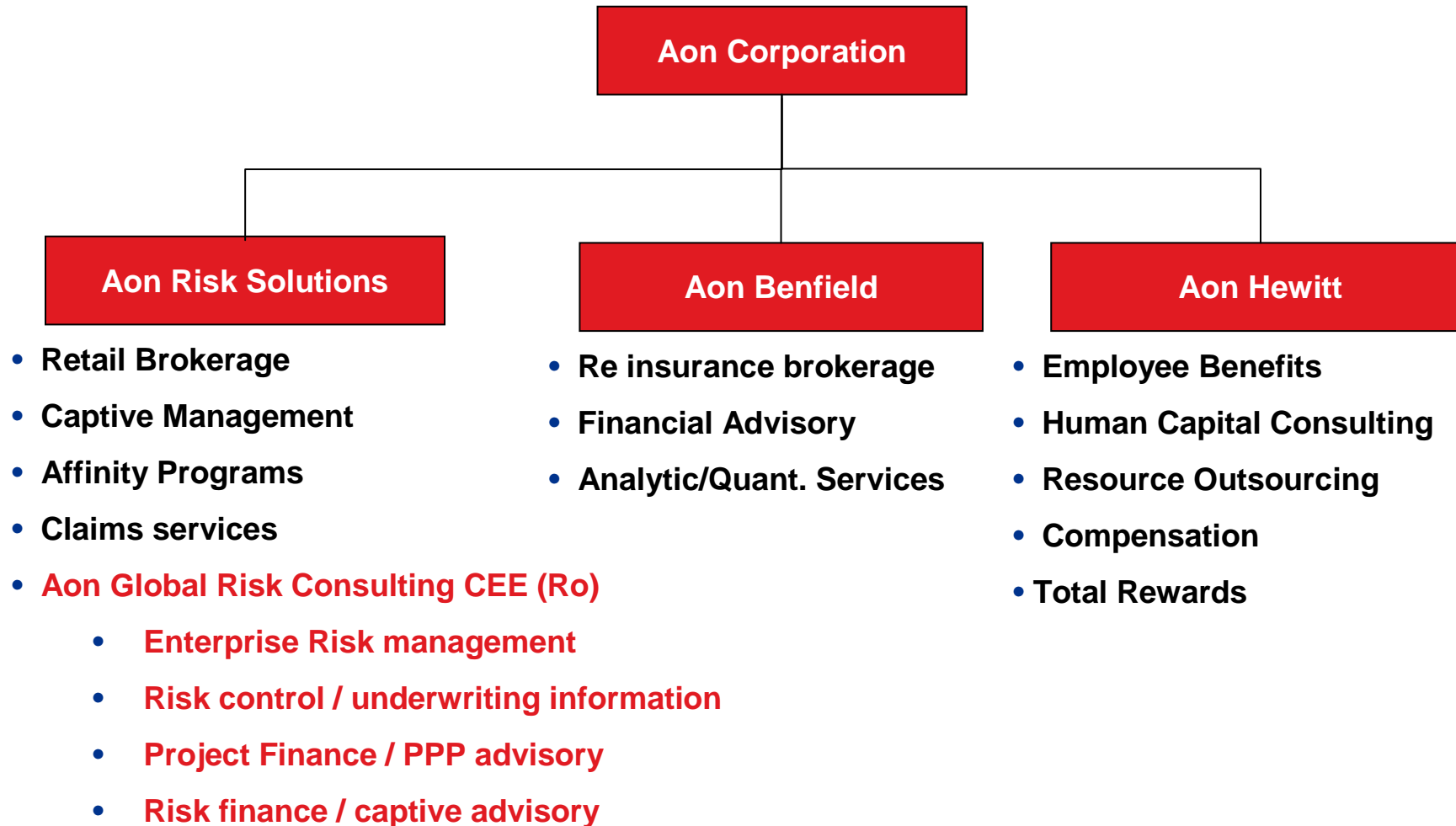
Aon Corporation

- Aon owned offices
- Aon representation
- Aon serviced



- World largest
 - Risk Sdvisor
 - Insurance & Reinsurance Broker
 - Employee Benefit Consultlant
- 64,000 employees, 120 countries, 500 offices
- 12 Bln \$ Annual revenue

Aon Corporation & Aon Romania



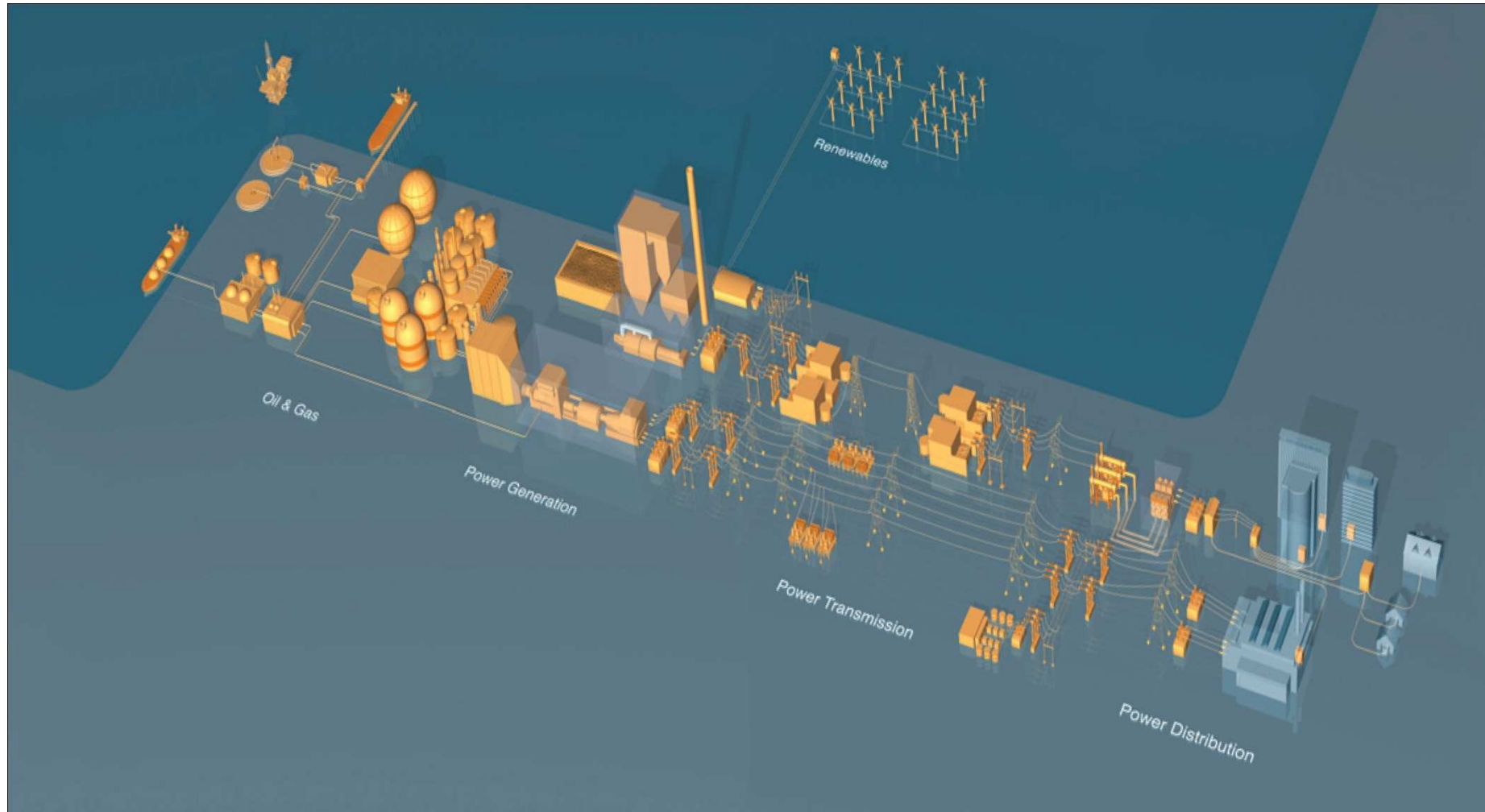
Aon Romania – Profile

- **Resources:**
 - team of 40 engineers, economists, mathematicians, IT professionals, specialized in insurance
- **Offices in Bucharest, Timisoara, Brasov, Cluj**



Certified ISO 9001:2000 Quality Management
Founding member of UNSICAR
Broker of the Year 2000* and 2004*
Quality of Service Award '05, '07, '08, '09 and '10*
Sustainable Development Award 2006*
* Media XPRIMM

Aon – References in energy supply chain



Aon – Key references power & utility projects

ROMANIA

- **ROMPETROL**
- **BUTAN GAS**
- **ROMCONSTRUCT** – Silistea Windfarm
- **UNIEL ENERGY INVESTMENTS** – Bucharest South Project - brown field gas fired cogeneration plant with 110 MWe and 116 MWth capacity, 150 mio Euro, Bucharest
- **TOSHIBA** – Co-Generation Power Plant No. 4 Rehabilitation PJ, Paroseni
- **TOSHIBA** – Extension substation 400/ 220 kV Brazi
- **ABB** – Gheorgheni substation; Stefanesti Arges substation
- **SIEMENS** – Sibiu Sud substation 20kV; 110/ 20 kV station Jucu; 220/ 110 kV Mintia station; Modernization of the installations of 1, 2, 3 and TL subway stations, Bucuresti

LARGE CORPORATE EUROPEAN CLIENTS

- **E.ON** – Germany
- **ENEL** – Italy
- **ESB**, Airtricity – Ireland
- **Grupo IBERDROLA** – Spain
- **MVM** group, Paksi Nuclear, Budapest Power Plant – Hungary
- **National Grid** – UK
- **Essent NV, Delta, Eneco, Nuon, EPZ, EDF** – The Netherlands

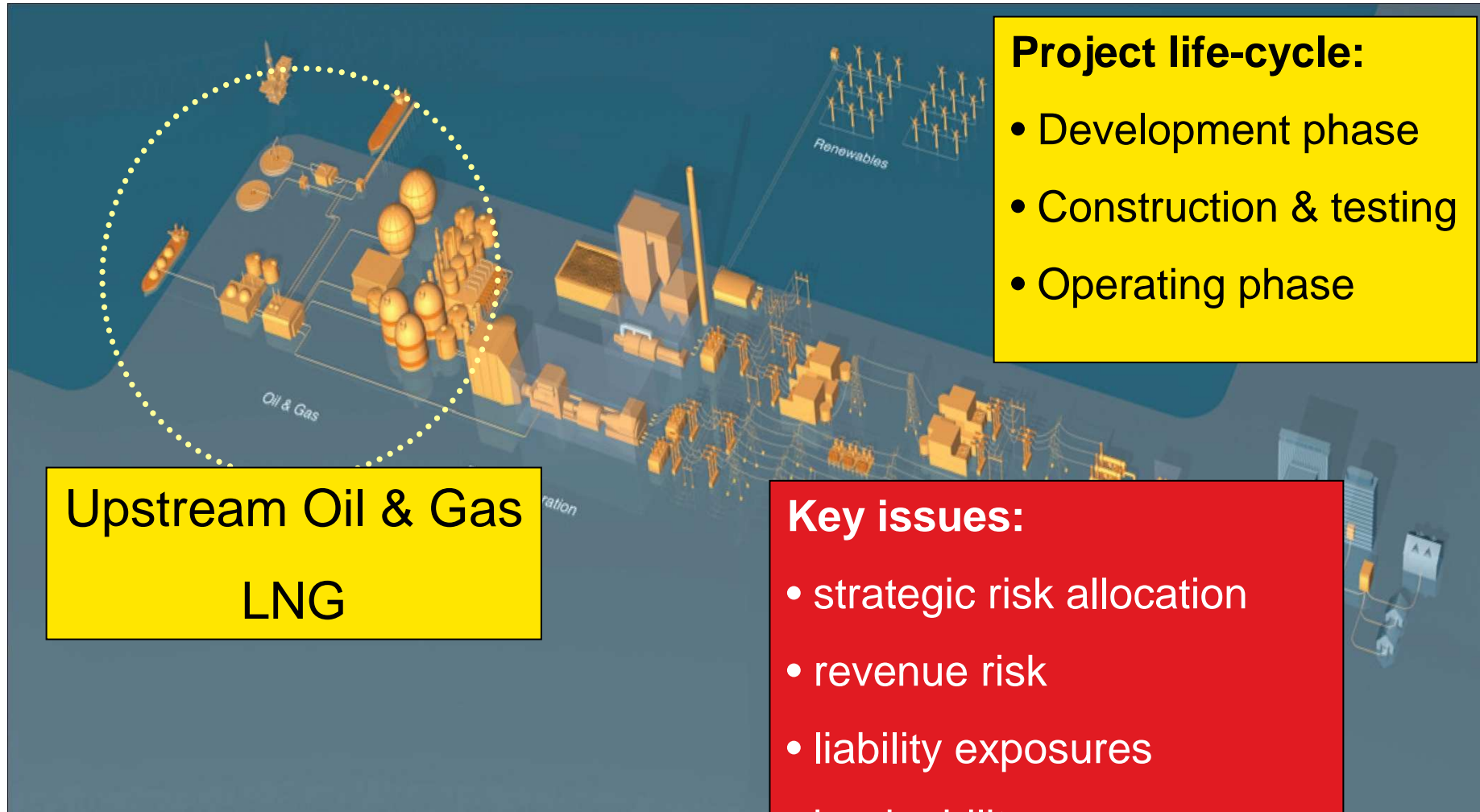
VARIOUS PROJECTS

- Sloe 860 MW gas fired CCGT Power Plant, Netherlands
- Nord See Ost Off shore wind farm, Netherlands
- LNG terminal Europoort, Netherlands
- Maasbracht 1280 MW new building, Netherlands
- Moerdijk 420 MW new building, Netherlands
- New building Enecogen 820 MW at Europoort, Netherlands
- Pax Nuclear PowerHungaryMaritza East 1, Bulgaria
- Maritza East 3, Bulgaria
- EPA, Greece
- DEPA, Greece

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Energy supply chain (1)



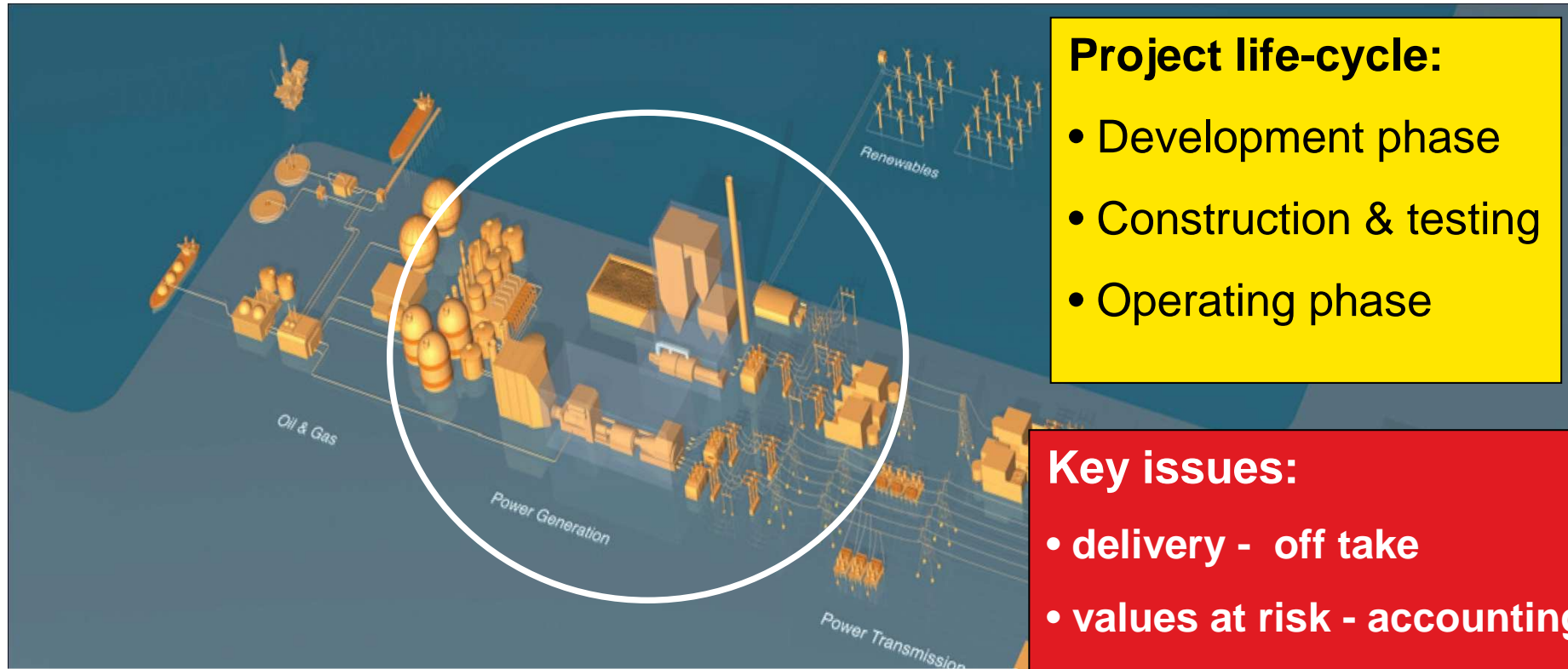
Project life-cycle:

- Development phase
- Construction & testing
- Operating phase

Key issues:

- strategic risk allocation
- revenue risk
- liability exposures
- bank ability
- supply risk

Energy supply chain (2)



Project life-cycle:

- Development phase
- Construction & testing
- Operating phase

Key issues:

- delivery - off take
- values at risk - accounting
- indemnification values
- bank ability
- price volatility
- demand risk

Power Generation:

- Conventional power plants (*coal, gas, nuclear*)
- Waste-to-Energy

Energy supply chain (3)

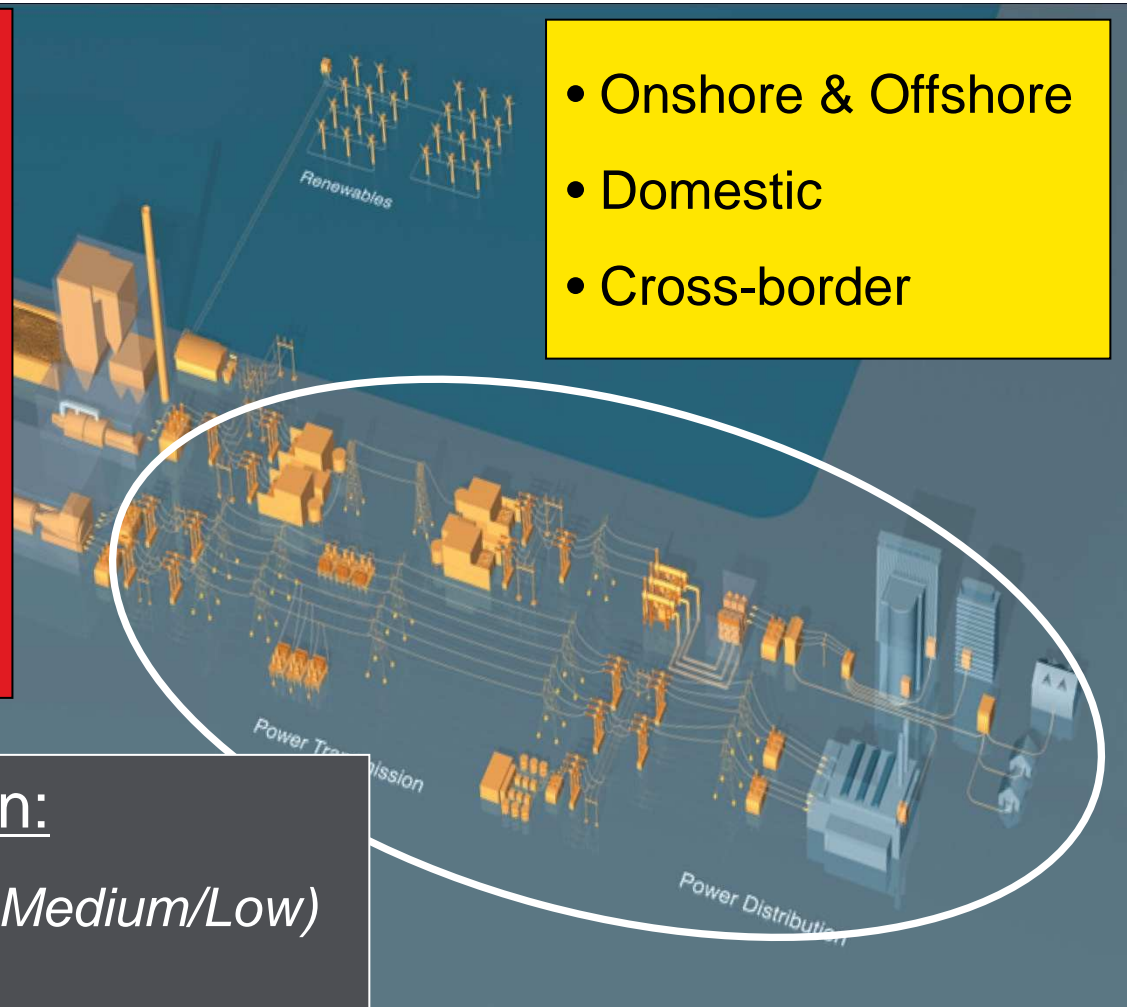
Key issues:

- continuity/delivery
- catastroph risk
- off take
- bank ability
- weather risk
- network stability /supply

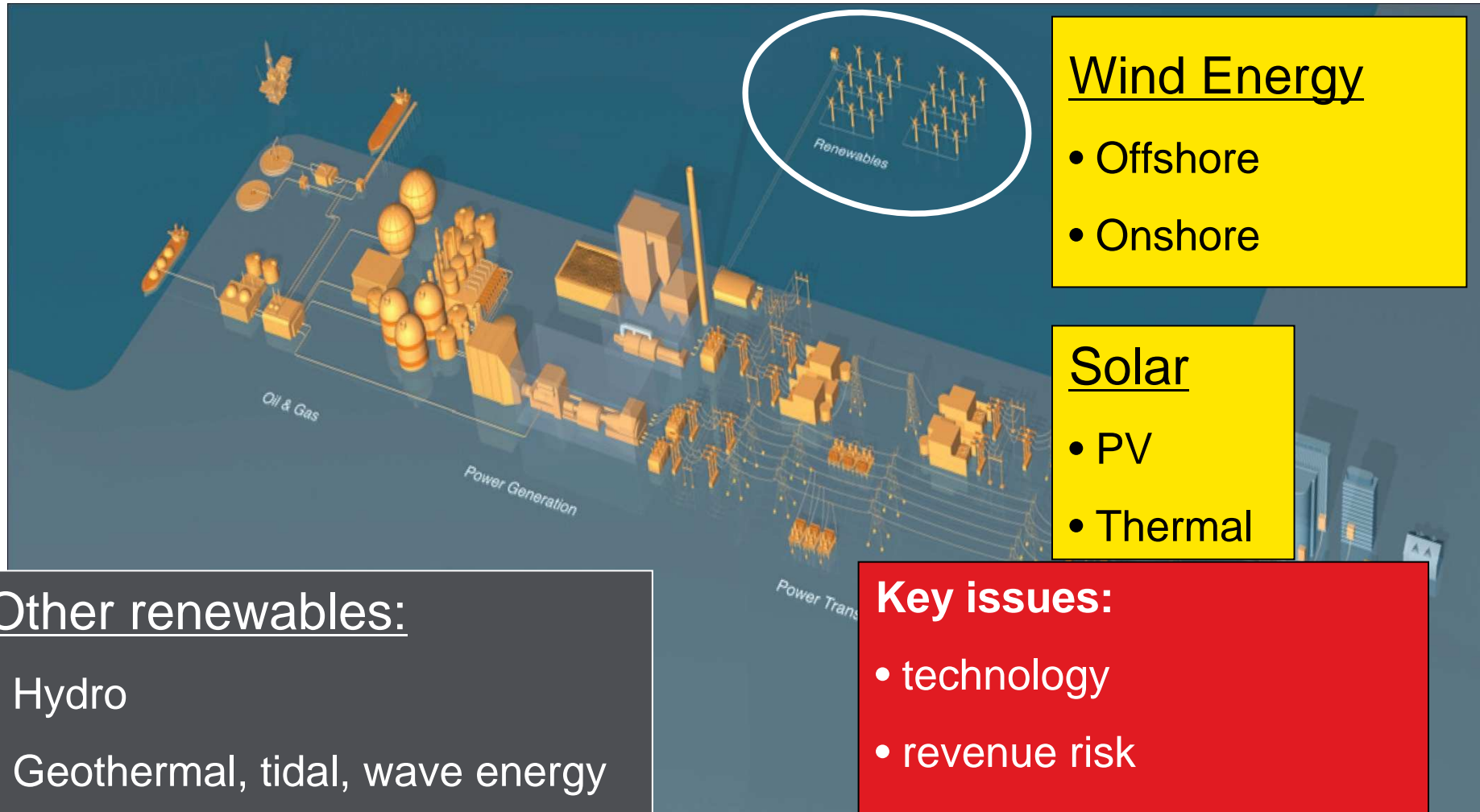
- Onshore & Offshore
- Domestic
- Cross-border

Transmission & Distribution:

- Electricity Grid (*High Voltage, Medium/Low*)
- Gas network
- Heat distribution



Energy supply chain (4)



Wind Energy

- Offshore
- Onshore

Solar

- PV
- Thermal

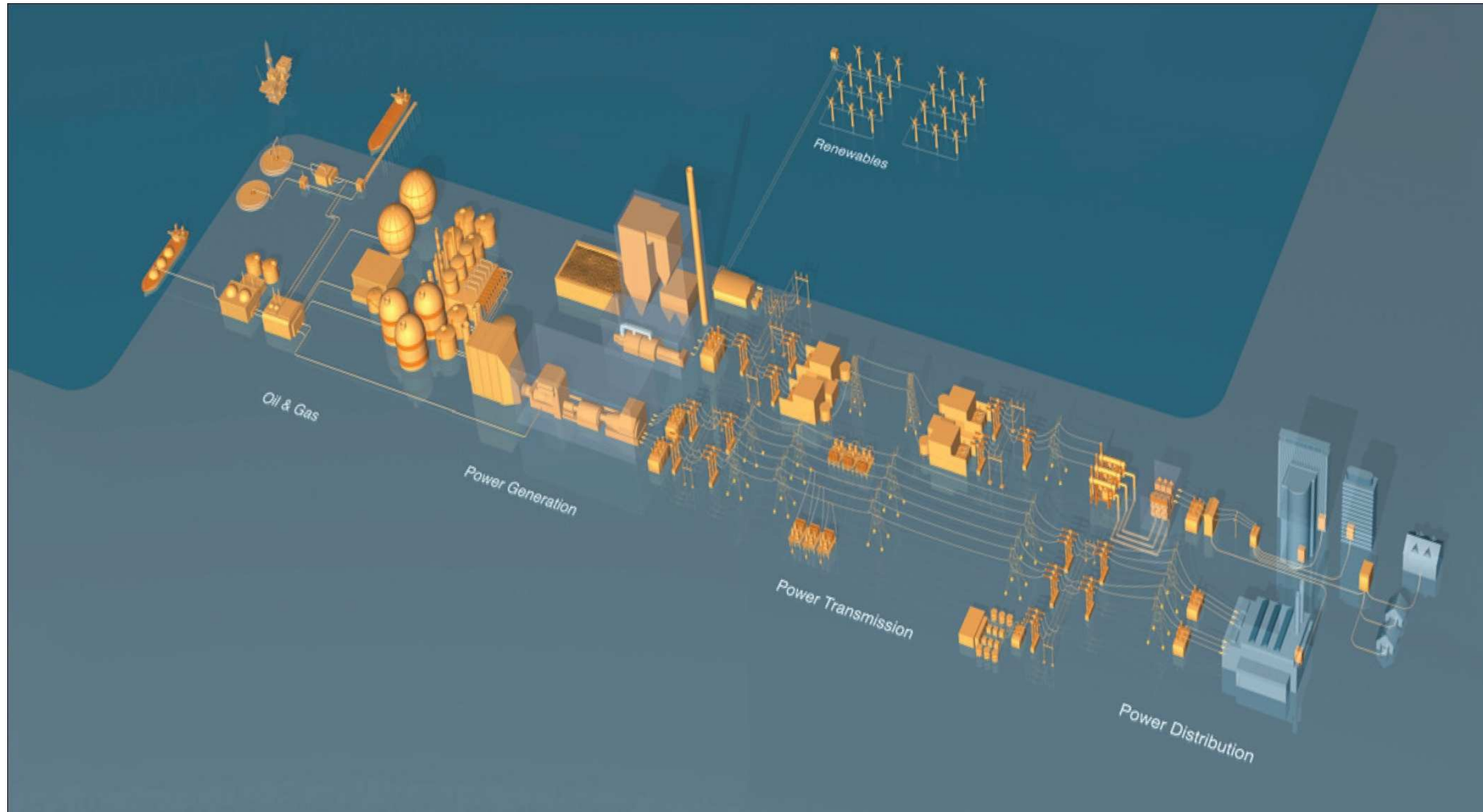
Other renewables:

- Hydro
- Geothermal, tidal, wave energy
- CO2: Carbon Capture & Storage

Key issues:

- technology
- revenue risk
- bank ability
- price risk

Energy supply chain – Common issue



Aon energy supply chain – Common issue



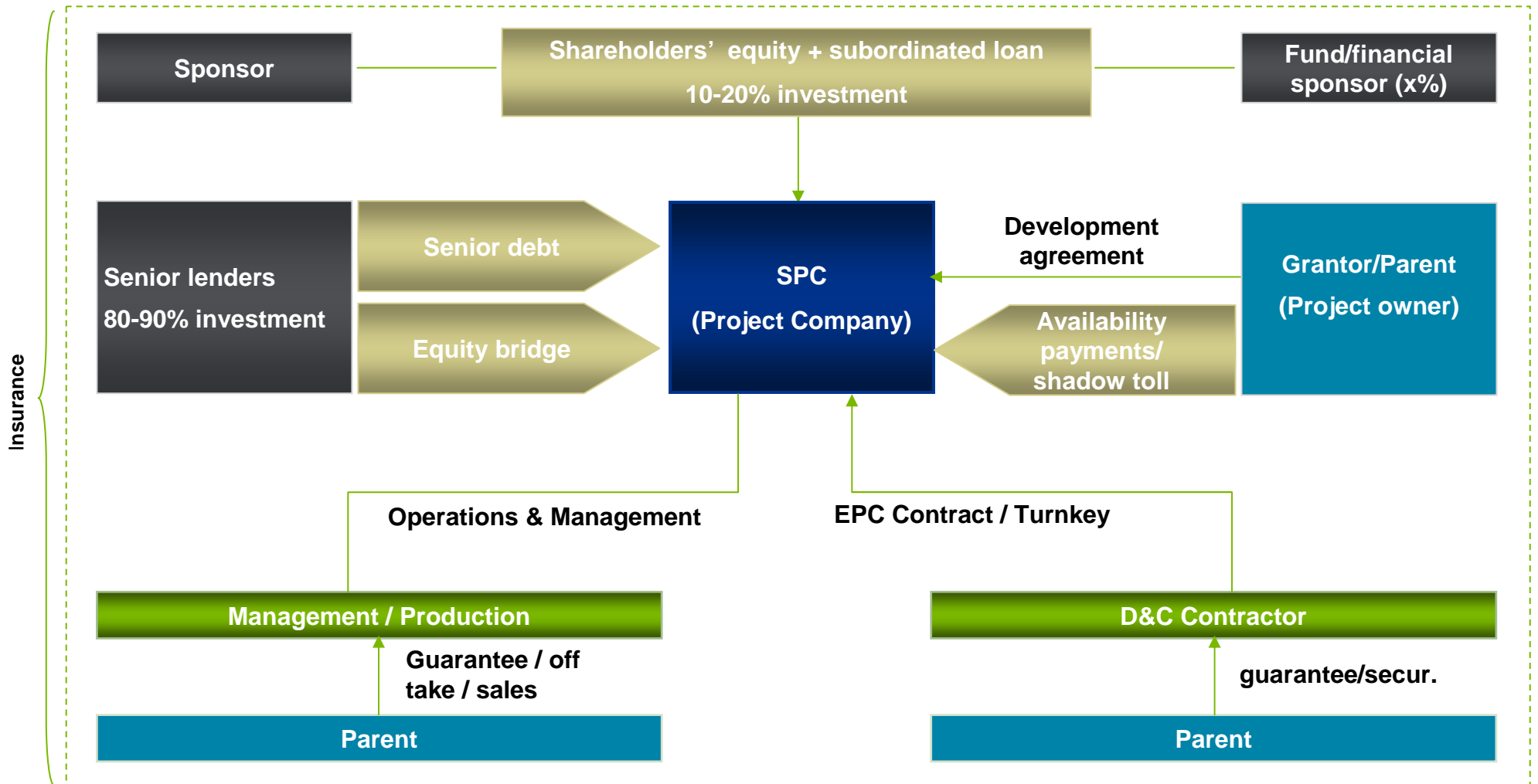
This is not what is going to happen



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Typical Project Finance Structure



Why Insure in Project Finance?

- Special Purpose Company balance sheet/cash flow protection
- Banks (EIB, ERBD, commercial, others)
 - Comfort and protection of their loan
- Owners/Client comfort
 - Project company (SPC) can continue to operate in event of losses
- Comply with international lenders requirements
 - Minimum insurer ratings
 - Lenders endorsements/clauses included
- This requires:
 - Adequate (and fair) risk allocation
 - Manageable
 - Financially feasible
 - Adequate insurance (insurable risks are being insured)
 - Efficient insurance (insurances are value for money)
- And should result into
 - lowest cost of risk

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Total Cost of Risk (simplified)

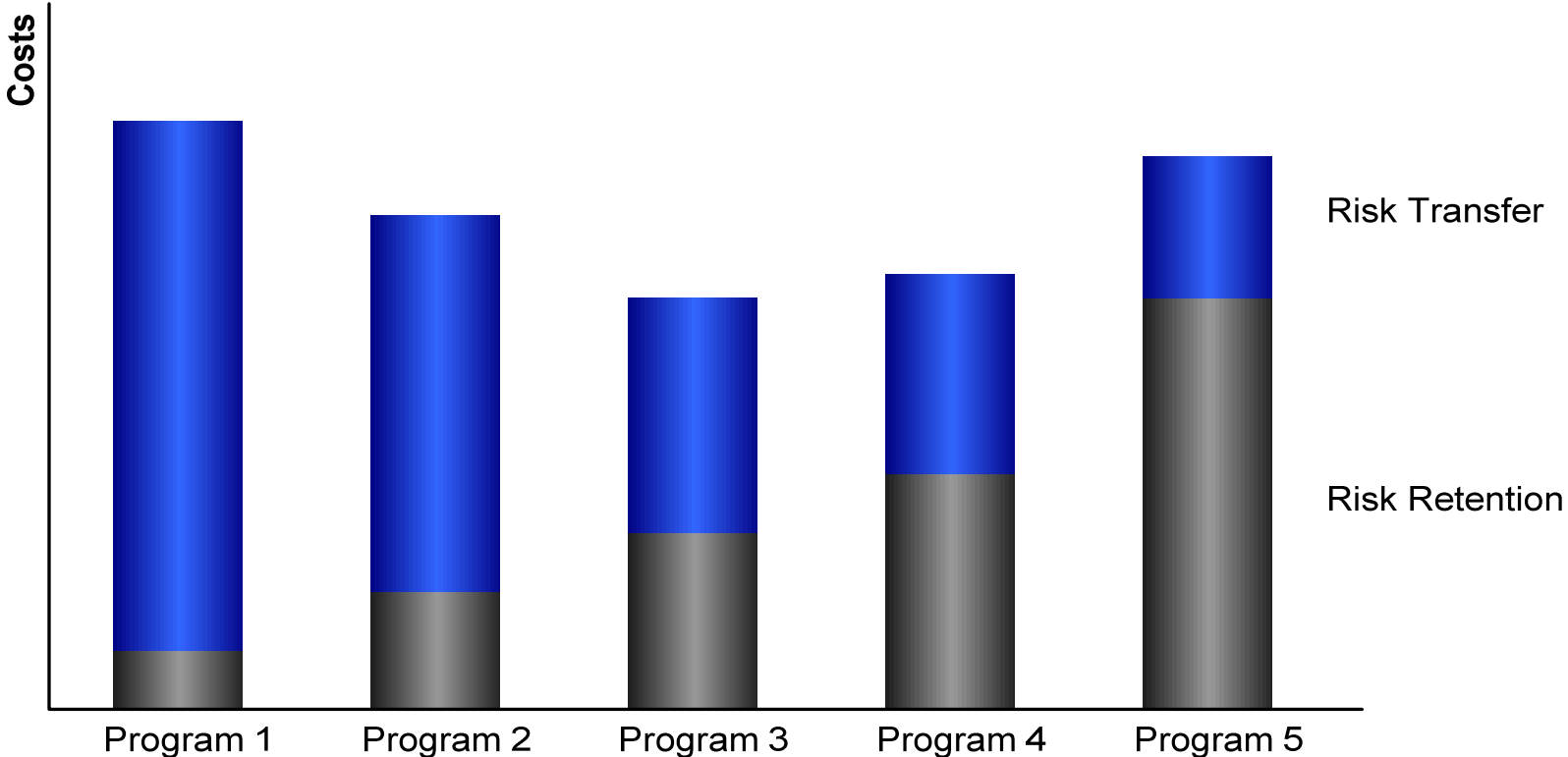
	Risk Transfer Costs	
+	Premium	} Risk Finance Costs
+	Administration Costs	
	Risk Retention Costs	
+	Losses	
+	Administration Costs	
+	Claims Handling Costs	
+	Earnings Volatility	
-	Investment Income	
	Risk Management and Control Costs	
+	Engineering Fees	
+	Supply Chain Risk Management Costs	
+	Business Continuity Management Costs	
+	Other Risk Management Related Costs	
	Department Costs	
+	Overhead & Administration Costs	
+	Staff Expenses	
+	Other Department Costs	
+	Cost of Capital	
=	TOTAL COST OF RISK	

Risk Finance Optimization

Risk versus Return

Mix between retaining and transferring risk

Retaining risk decreases the transfer costs, but maybe not TCoR



The Insurable Risks

- Mirror a Business
 - Assets
 - Revenue
 - Liabilities

- When is it „Value for Money“
 - Fortuitous Risk
 - Claims history

- What is not insurable
 - Inevitable (excluding life insurance)
 - Penal damages
 - Criminal Acts

Aon Romania – Programme Design Strategy

- Project centric
- Recognition of needs of all parties
- Interfacing insurance protection with self retained exposures
 - Breakdown
 - Latent defects
 - Consequences of defects
- In-built ability to change
- Longevity and price stability
- Reward for risk management/low claims

→ Deliver lowest cost of risk

Aon Romania Services

- Aon advisory services to either:
 - Client, Developer, Owner, Government
 - Lenders
 - Contractors
- Include amongst others:
 - Risk Analysis
 - Risk accounting
 - Insurance Requirement Analysis and Drafting
 - Tender advice and analysis
 - Bidder Negotiation support (for client or contractor)
 - Pre- financial Close Audit
 - Insurance placing , administering and claims handling/advice

Aon Romania – Key benefits

Best team: *“Combining Global Reach with Local Strength”*

Skills:	Expert support by leading Industry specialists
Capacity:	Well resourced team local CEE and global team
Commitment:	Dedicated to the industries global issues
Complete:	Covering complete lifecycle of the projects
Access:	Local presence & support via Aon-network
Power:	Global leverage through specialist broking centers

By using our global reach we can monitor the industry worldwide and give our clients the benefit of a global view on

- Technical issues
- Regulatory changes
- Product innovation
- Lenders requirements

- Global market appetite
- Rating trends
- Claims
- Benchmarking

Aon Romania – Value proposition

Key-benefits for clients:

Best product offering and services:

- Tailored balance of Risk Advisory & Broking Services
- Designed to minimize Total Cost of Risk

Valued partner:

- Aon is the worlds largest broker
- Aon is the worlds largest re-insurance broker
- Aon is the premier risk advisor

Risk Advisory Services & ERM

- Project Risk Management
- ERM
- Lenders Advisory
- Risk Engineering / Loss Control
- Risk Management Information tools
- Risk accounting

Broking Services

- Expert program design and placement
- Insurability advice & benchmarked cost estimates
- Contractual reviews
- Assistance in negotiations with Lenders, Contractors, J.V. Partners
- Complex claim advocacy

Contact details

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