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Legal challenges

Global Challenges in New Build Applications

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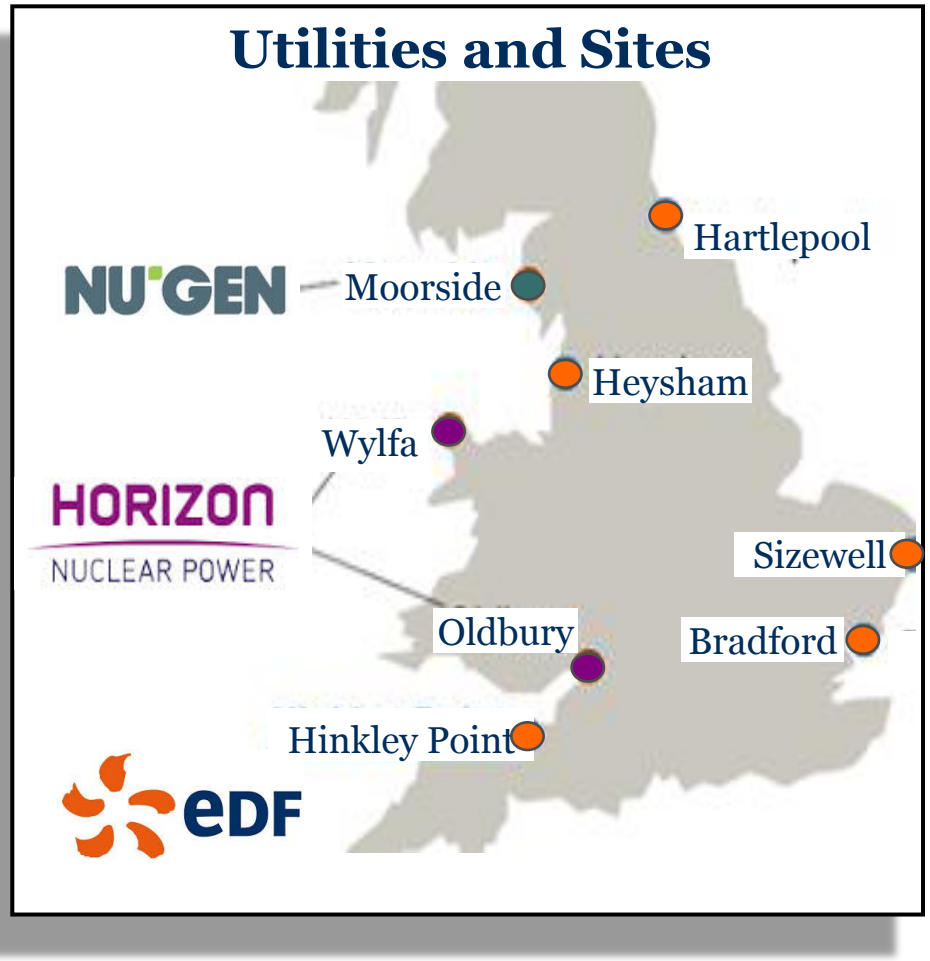
WNA CORDEL - Technical and Regulatory Workshop
2 June 2016

Nuclear new build in the UK

A brief history

- **January 2008**: Nuclear White Paper supporting nuclear as "part of the energy mix" (re-issued after successful Greenpeace court challenge to earlier White Paper in 2007)
- **2008-2009:** Series of Acts, Regulations and procedures introduced to streamline the licensing and consenting processes:
  - Generic Design Assessment
  - Nuclear-specific "justification" approval
  - Streamlined planning laws for Nationally Significant Infrastructure Projects
  - National Strategic Siting Assessment
  - New provisions for decommissioning funding and pre-priced spent fuel transfer
- **2007-2010:** Government auction of new build land
- **2011:** Laws for Contract-for-Difference feed-in-tariff regime passed
- **2012:** Site licence granted for Hinkley Point C
- **2016:** Number of projects under construction:

0



What are the legal challenges?

1. Licensing and permitting challenges

- Complexity and interdependencies between regimes
- Lack of international standardisation – little benefit; plenty of risk
- Unpredictability of third party challenges

2. Funding and investment challenges

- Attracting the right investors at the right time
- Certainty of return – the Contract-for Difference regime
- Political and legal risk surrounding government support

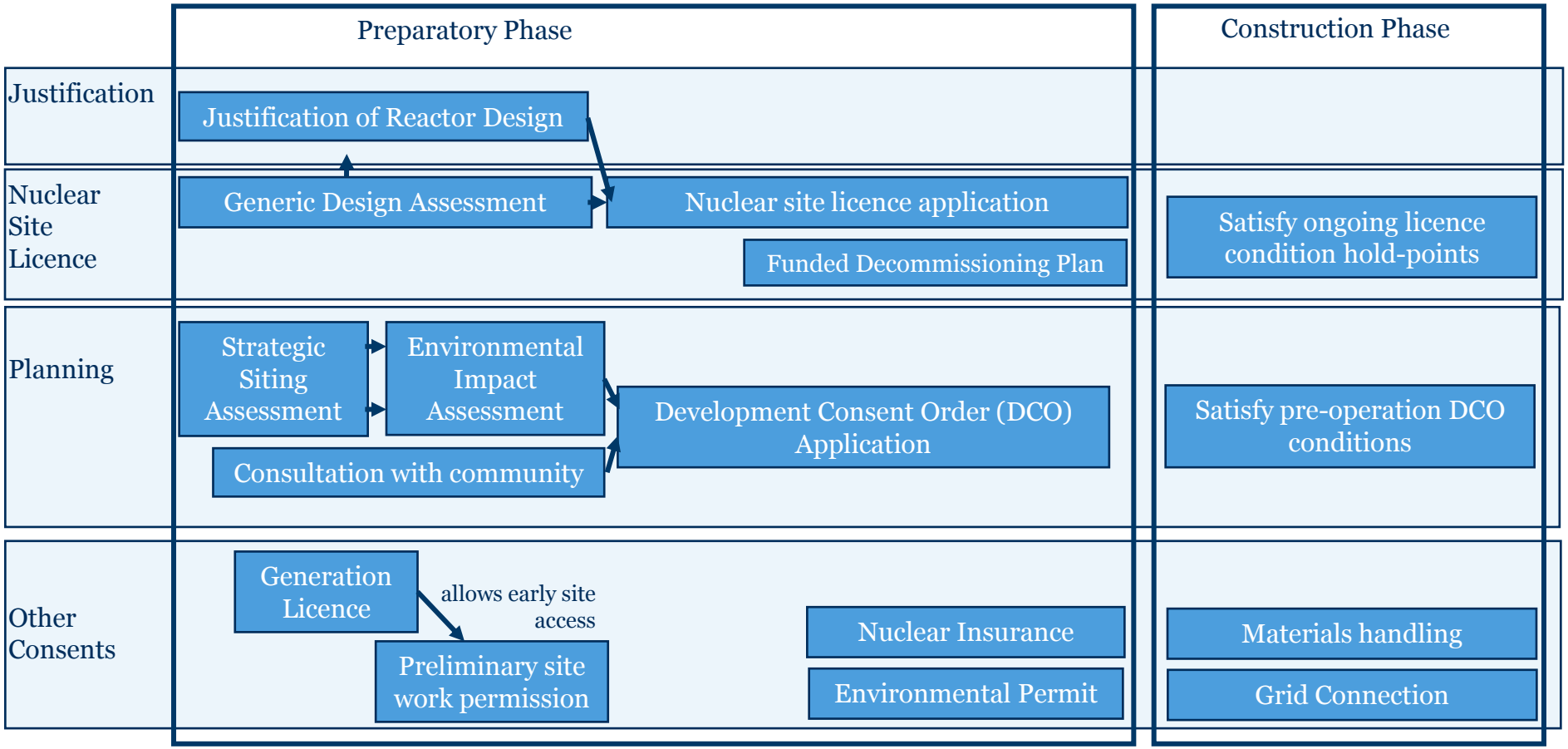
3. Challenges in translating these risks into contracts

- Allocating of risk in construction and supply chain contracts
- Structuring consortium arrangements

1. Licensing and permitting challenges

Complexity and interdependencies between regimes

- Separate "**justification**" approval (decision in principle): a symptom of third-party challenge fear
- The introduction of **GDA:** a non-legal process - flexibility v certainty and predictability
- Single **Nuclear Site Licence**: De-risking future stages at the expense of getting a project started?
- **Interaction** of nuclear licensing with more political consent processes: planning and EIA



1. Licensing and permitting challenges

Lack of international standardisation

- The UK's "goal based" standards
  - Theoretical flexibility v regulator culture
  - Lack of willingness of regulators to approve international designs
- Risk of gold-plating in response to issues at international plants
  - Sudden change to GDA process after Fukushima
  - Flamanville impacts on Hinkley Point C

Unpredictability of third party challenges

- The UK tradition of judicial review
  - Risk of challenge is high, risk of successful challenge is low
  - Objector goals: Delay; investor uncertainty; public support
  - Impact on regulator and industry behaviour
- Increasing judicial appetite to re-examine technical analysis
  - Traditionally a no-go zone
  - Increase in UK court's willingness to explore technical areas in non-nuclear fields
- The recent Japan experience

1. Licensing and permitting challenges: Japan injunctions

Courts not willing to intervene	Courts willing to intervene
16 April 2013: Osaka District Court • Rejected an application an injunction to shut-down of Ohi 3 and 4, on the basis of an argument that control rods to halt operations would not go into the reactors in time in a strong earthquake simultaneously involving 3 active faults in the region • The court said it did not recognise a specific danger, and that the Ohi plant meets safety standards	**21 May 2014: Fukui District Court** • Imposed an injunction against Kepco restarting Ohi 3 and 4, which were undergoing safety assessments by Japan's Nuclear Regulation Authority (NRA) prior to restart. • The Court sound that the plant is sited near several active seismic faults and is not adequately protected against earthquakes.
6 April 2016: The Fukuoka High Court • Rejected an application for an injunction to the shut-down Sendai 1 and 2, based on residents' claim that new safety regulations set by the NRA in July 2013 were too lax to protect the Sendai plant from earthquakes and volcanoes. • The judge ruled in April 2015 that, according to the latest scientific knowledge, the new safety requirements are adequate and that the plant is at no specific risk.	**09 March 2016: The Otsu District Court** • The court ruled that the safety of the units cannot be guaranteed, despite the NRA saying they meet revised safety standards. • Imposed a temporary injunction against the operation of Kepco's Takahama 3 and 4

2. Funding and investment challenges

Attracting the right investors at the right time: Planning the project timeline

- Interdependencies between licensing and investment milestones require strategic planning
- Consortium agreements need to align with key licensing stages
  - **Certainty:** To harness the increased certainty from the grant of key approvals, as pre-conditions to major investment decisions/commitments
  - **Resources:** To ensure parties commit to provide the necessary resources to facilitate the completion of licensing phases – both expertise and finance
  - **Risk:** To ensure that liabilities and duties are not triggered until the consortium is adequately resourced and committed – and to create an exit plan

Certainty of return – the Contract-for Difference regime

- Contract for Difference regime introduced to provide certainty of electricity pricing over the long term
  - Based on actual predicted project cost
  - Adds additional complexity to management of licensing risk
- Backed by Infrastructure Guarantees for debt finance

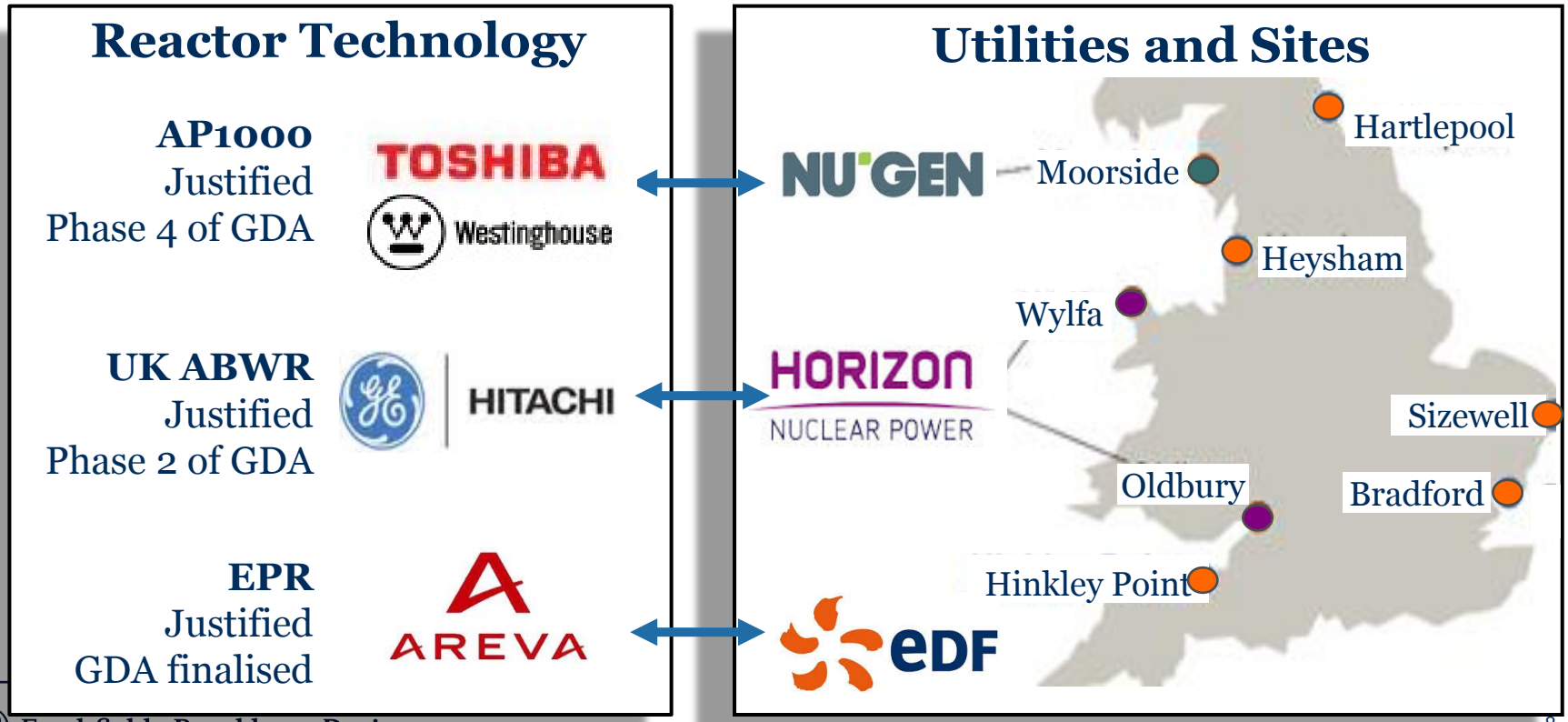
Political and legal risk surrounding government support

- Public scrutiny of “value for money” proposition
- State Aid challenges at EU level

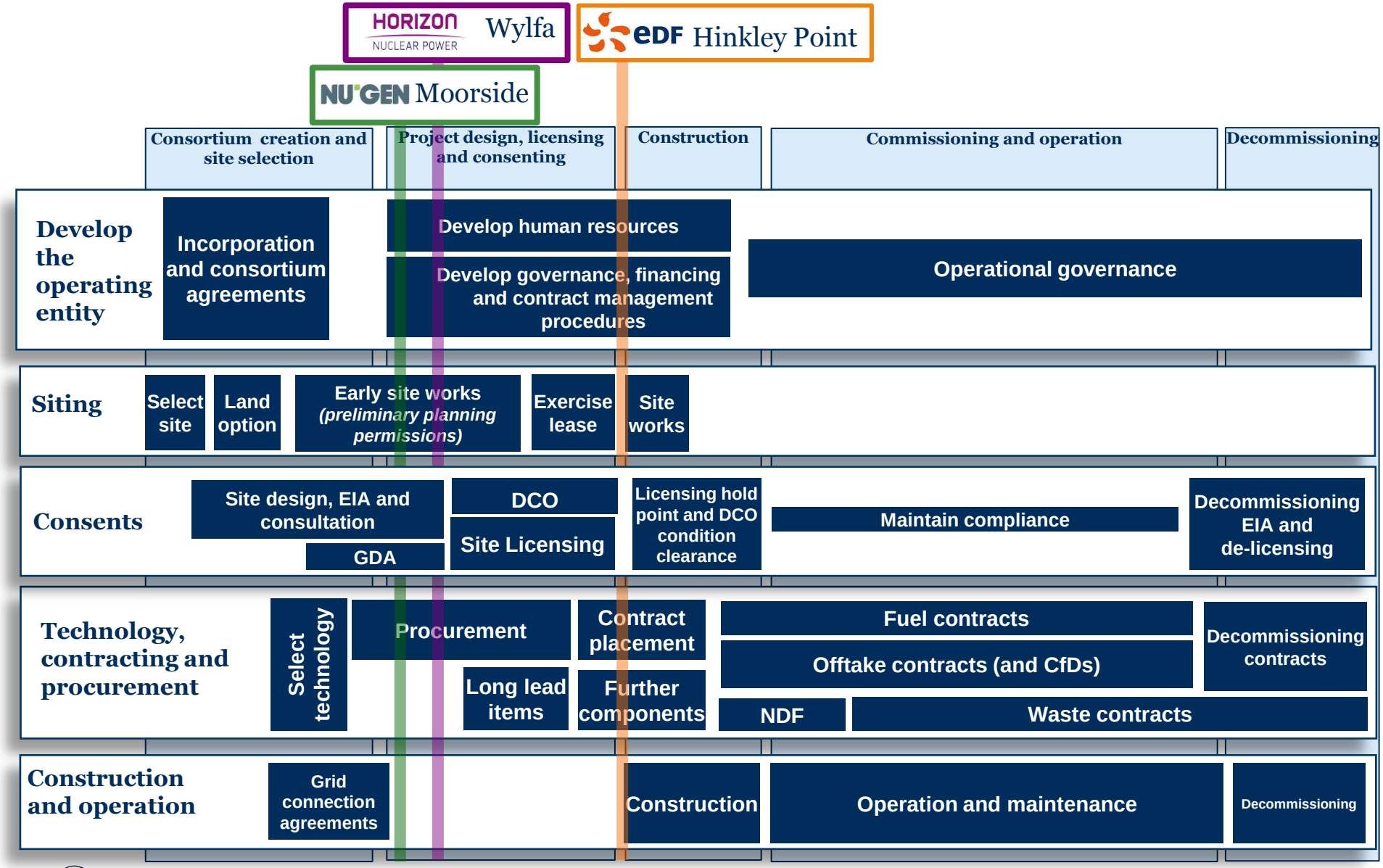
2. Funding and investment: Current status of UK New Build

Nuclear consortia

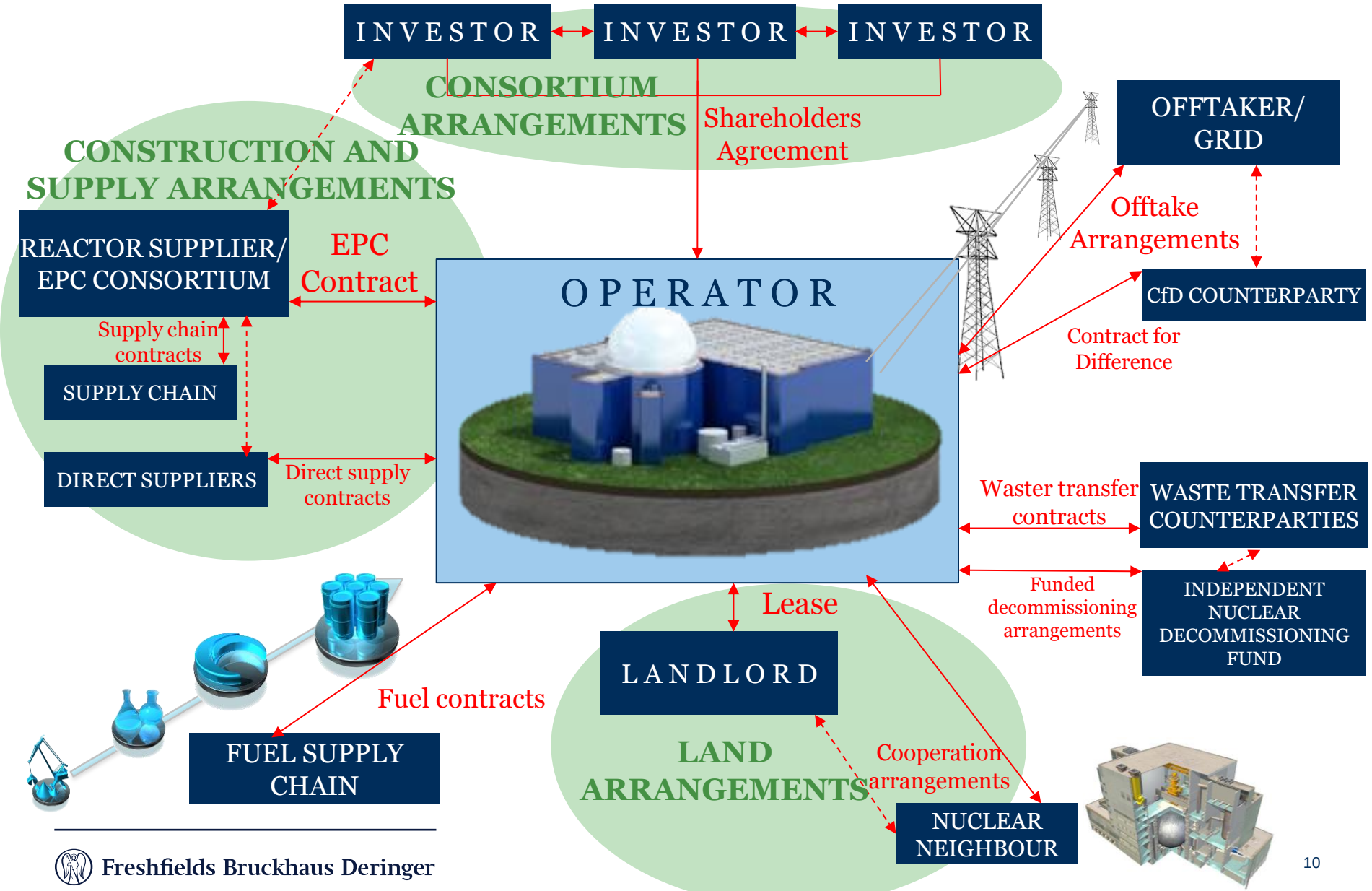
- Private, and not just utility driven: Reactor vendors driving cross-disciplinary
- Competing requirements:
  - Flexibility to attract investment –v- stability to secure nuclear site licence
  - Attracting early investment to fund siting and consenting -v- deferring funding commitment until regulatory milestones are met
- "Licensable entities" being grown organically, in a competitive market for skills and resources



2. Funding and investment: Current UK project status



3. Contracting challenges - legal anatomy of a UK nuclear project



3. Contracting challenges: regulatory risk in consortium agreements

Stage	Consortium agreement considerations
Securing a site and characterising its suitability	• Land option (and government strategic siting commitments) • Land purchase costs / Lease premiums and obligations • Site characterisation (including risk from works; grid connection; workforce; exit planning; legacy liability from site characterisation works?) • Making the site suitable (eg, legacy nuclear neighbour contamination)
Building a "licensable entity"	• Committing stable, consistent expertise (the right mix of investor expertise; exit restrictions; investor secondment obligations) • Ensuring corporate governance meets regulator's standards (independence; stability; expertise – intelligent customer status)
Selecting and certifying a reactor design	• Technology competition processes • Justification • Design certification – costs; timing
Securing a reliable supply chain	• Ensuring supply chain is capable of meeting regulator expectations • Ensuring delivery (eg, early long-lead items) is committed to be made at the right time • Securing a main contractor, or means to coordinate project delivery
Developing relationships with stakeholders	• Ensuring enough stability, early design and planning for meaningful community engagement • Strategy for engagement with regulators • Making and supporting licence and permit applications (and defending legal challenges)

3. Contracting challenges: regulatory risk in construction contracts

Risks associated with grant of licence approvals

- High level licensing risks: pre-licence early works and long lead items
- Risk of new/changes to requirements arising out of the licensing process
  - Requirements for design change
  - Additional justification (eg, demonstration of the quality of components, materials and as-built works)
  - Requirements for particular working methods (manufacture, construction and/or commissioning)

Risk of delay

- Continual ONR oversight, supervision and intervention into supply chain operations
- Extensive use of "hold points" where work cannot proceed without ONR approval: significant scope for schedule overruns

Practical consequences of constructing in a nuclear environment

- Nuclear safety has priority: quality supervised closely by regulator and non-negotiable
- Requirement for operator to retain control – "intelligent customer" status: limited ability for Suppliers to work 'at risk'
- Operator and ONR control limits supplier ability to manage internal processes
- Limited ability for parties to agree substitutes and compromises
- Normal management techniques to control time and cost are not available: risk of significant cost and schedule overruns

Thank you