Freshfields Bruckhaus Deringer

Licensing issues for new build consortia

Aligning milestones and attracting investment

Vanessa Jakovich, Counsel, London

WNA New Build Licensing Conference, 21 April 2015

Why is licensing crucial to attract new build investment?

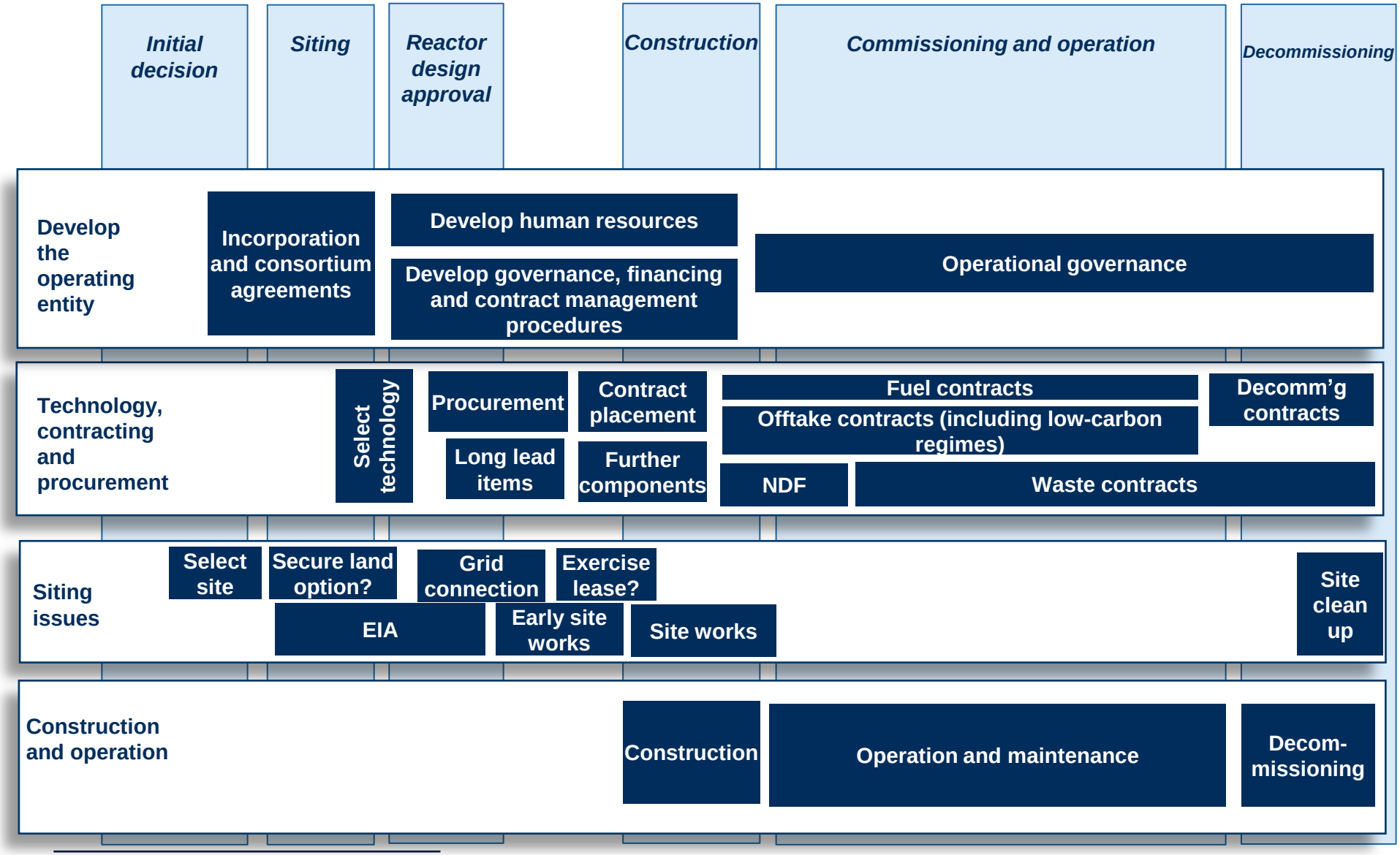
Who are the nuclear consortia of the current renaissance?

- Increasingly **private**
- Increasingly use **industry equity** for seed funding (cf: debt/project finance availability)
- Massive investment required means no longer just utility driven
  - Increasingly **cross-disciplinary**
  - **Reactor vendors** driving consortia creation
  - Also **outbound** investment from **emerging** nuclear markets into older nuclear markets, for purpose of building expertise (eg, China into UK)
  - Massive investment means there is also a need to facilitate later investment by **non-nuclear** investors (eg, pension schemes) who can have less operational input
  - Also means nuclear is competing with classic infrastructure projects for traditionally conservative investors, so consortium agreements need to accommodate that lower risk appetite
- Competitive market for skills and resources forces **organic growth** of a “licensable entity”

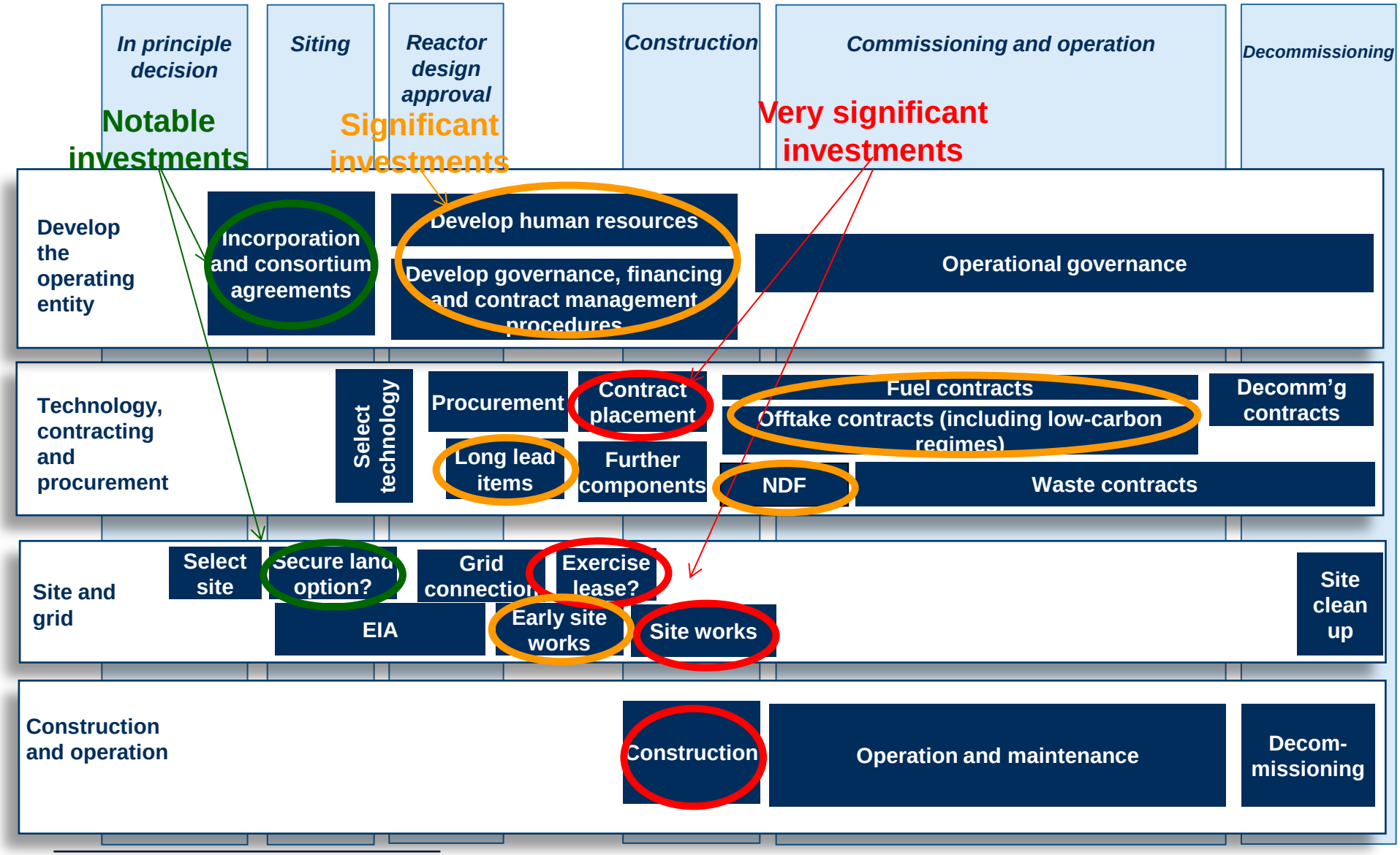
Licensing drives the size and shape of these consortia

- Can be decisive in making project consortia investable
- How is this being managed?

Key project phases



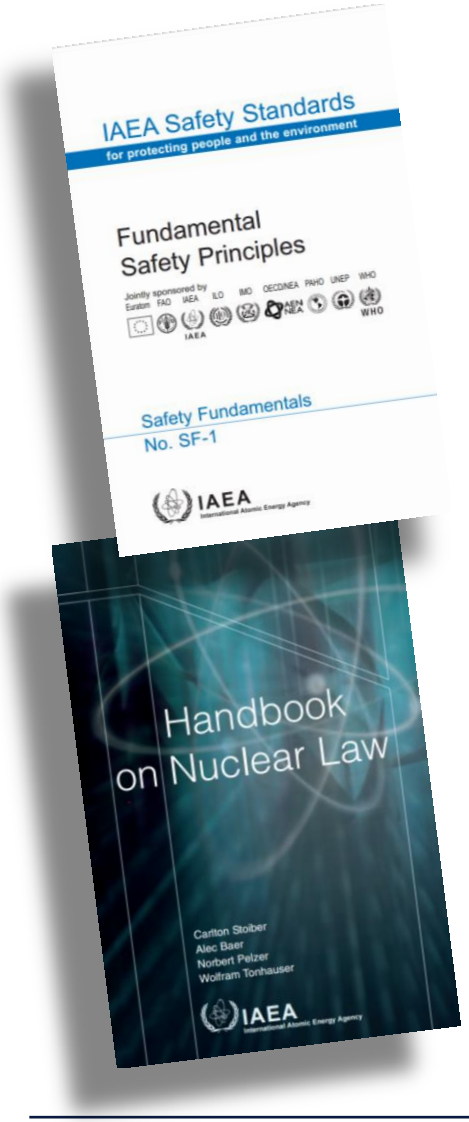
Key project investment milestones



How do licensing issues affect commercial timelines?

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)

The IAEA and nuclear licensing laws



SF -1 Fundamental Safety Principles

- Establishes the principles on which the Convention on Nuclear Safety is based

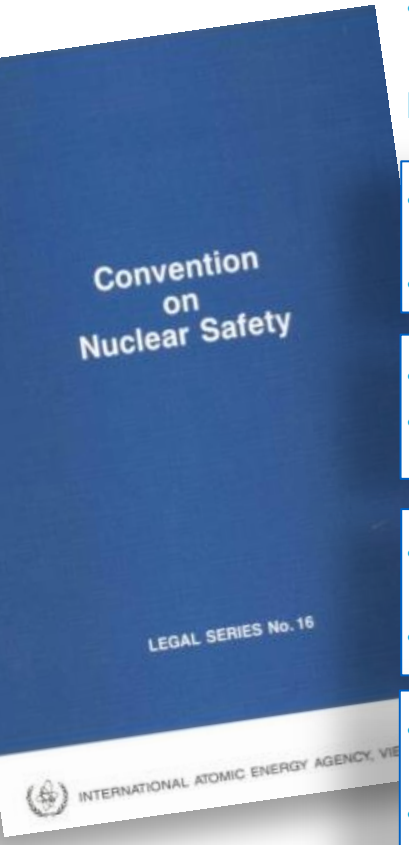
Handbook on Nuclear Law

- Recommendations regarding the basic characteristics of licensing laws:
  - Availability of licences
  - Application processes
  - Public participation
  - Criteria for issuance
  - Issuance and form of a licence
  - Suspension, modification or revocation
  - Review of licensing decisions
  - Inspection and enforcement measures
- Non-prescriptive as to process

Licensing requirements under international law: back to basics

Objectives in Article 1

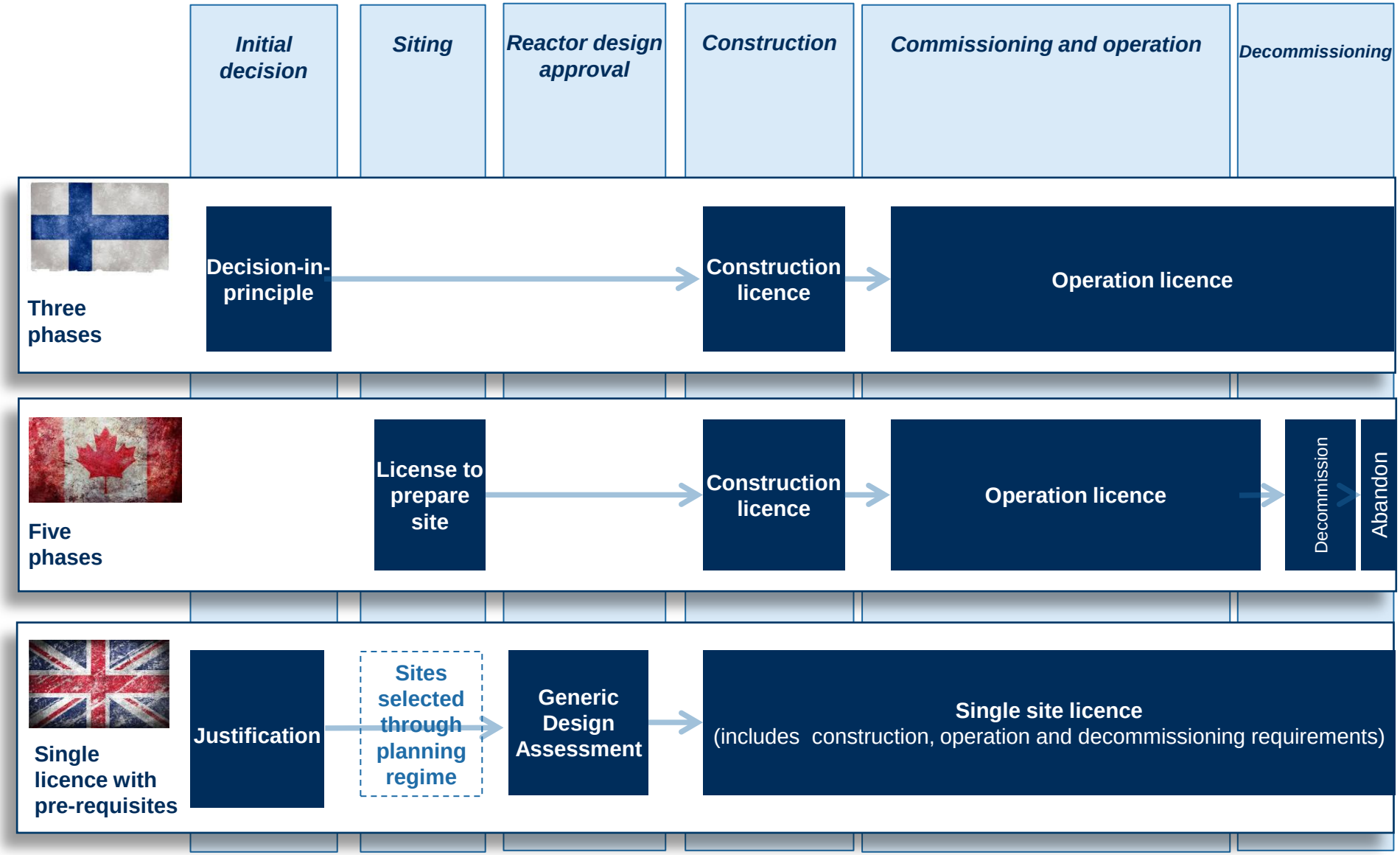
- To achieve and maintain a high level of nuclear safety worldwide
- To establish defences in installations against radiological hazards
- To prevent and mitigate accidents with radiological consequences



Requirements

• **Article 7(2):** Countries must have a system of licensing, prohibit operation without a licence, and ensure inspection, assessment and enforcement • **Article 9**: Licensed operators must bear prime responsibility	**The permission principle and prime responsibility**
• **Article 10:** Licensed operators must have policies prioritising safety • **Article 11:** Licensed operators must have sufficient financial and human resources to ensure safety	**Qualifying as a licensable entity**
• **Article 14:** Comprehensive safety assessments required before construction, commissioning, and through the project's life • **Article 17:** Siting and consultation processes	**Safety assessments and siting**
• **Article 18 - Design**: Construction and technology must include defence-in-depth, be proven or qualified by testing, and be reliable and stable. • **Article 18 0 Operation :** Must accord with a safety case, use established procedures, constantly improve, and minimise waste.	**Substantive project requirements**

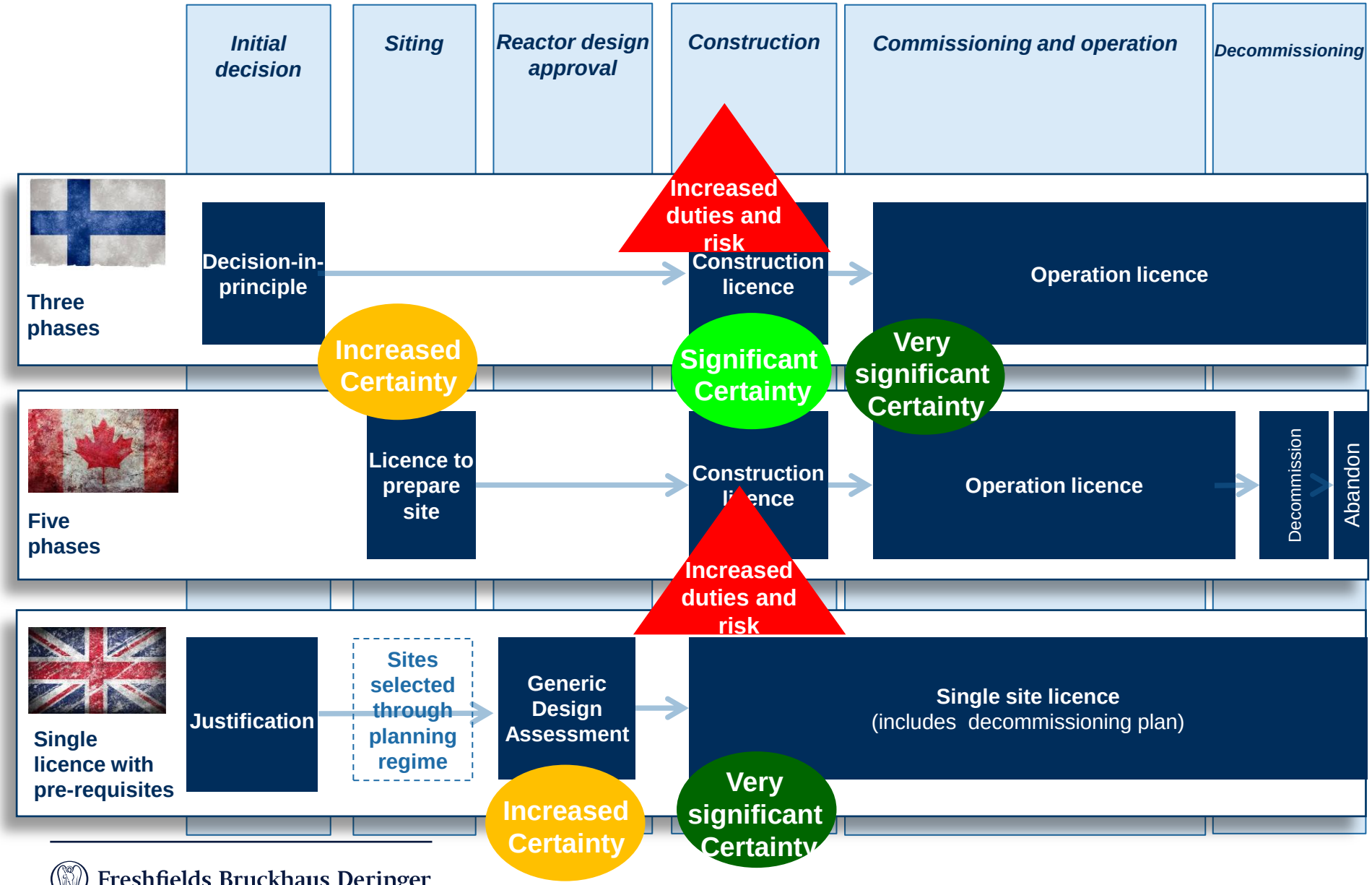
Examples of licensing models: phases



Aligning milestones and attracting investment

- **How do these licensing steps align with investment timelines?**
  - **Interdependencies** between licensing and investment milestones require **strategic planning** and careful management
  - Consortium agreements need to align with key licensing stages for many reasons:
    - **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
  - Licensing regimes need to be stable and predictable to make this possible

Commercial risks in phases of licensing

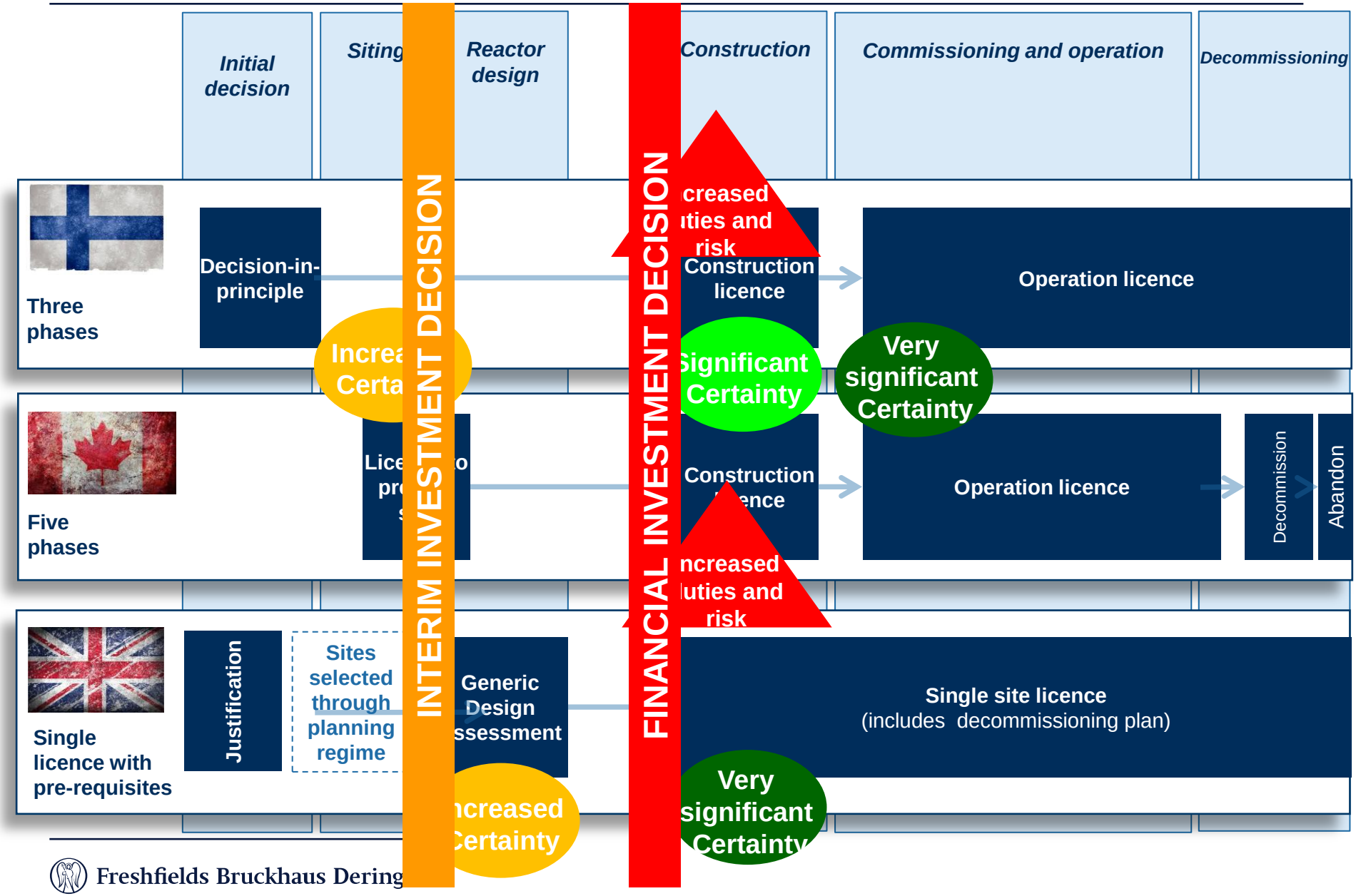


Dealing with licensing risk in Articles and Shareholder Agreements

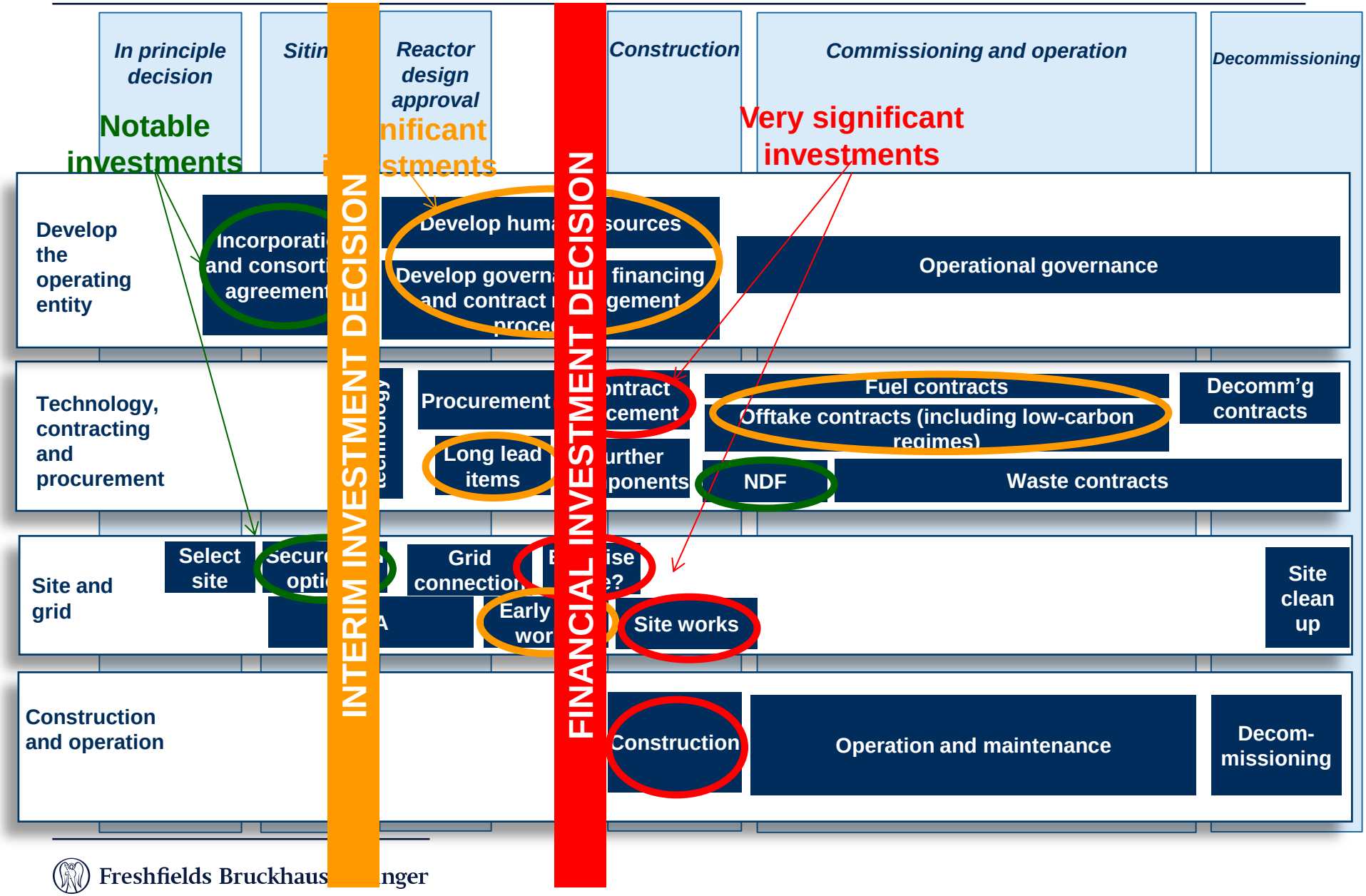
What do vendor-driven, multi-disciplinary consortia mean for licensing and permitting timelines?

- **Alignment of key milestones**
  - Increases ability to identify obvious points to increase investment obligations in consortia agreements
  - Careful management needed – more licensing processes on the critical path
- **Parallel processes**: Vendors less willing to fund pre-licence design certification without a customer
- **Exit**: Unlike utilities, participant interest changes over the life of a project
  - Consortium agreement exit become important
  - Managing “licensable entity” status an important consideration
- **Diversity:** Impacts of difference between consortia members cannot be underestimated
  - Culture, background and area of discipline affect everything: project pace, risk appetite, communication, stakeholder engagement, etc

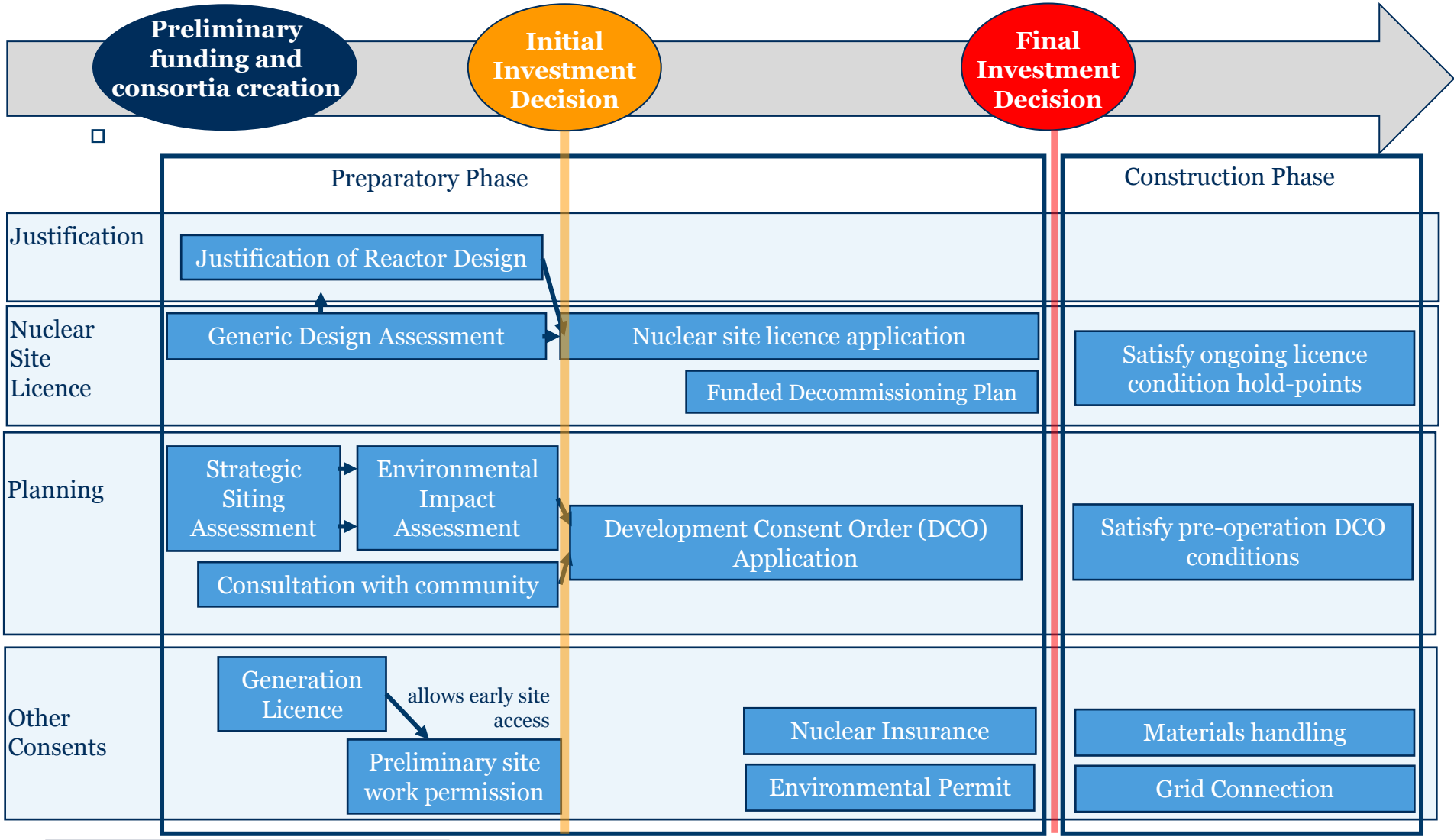
Aligning investment decisions with licensing risk



When do consortium agreements provide for investment decisions?



UK example: Nuclear new build consents



Dealing with licensing risk in Articles and Shareholder Agreements

Managing risks crystallised by licensing processes – example of contamination

- **Strong trend for new build sites in mature markets to neighbour legacy sites**
  - Reasons for **original siting** decisions tend to endure: eg, cooling water, seismic stability, visual impacts, transport
  - Existing **grid**
  - Workforce and **skills**
  - Government policy
- **Presents new and interesting challenges**
  - Risk of neighbours impacting on each other's **safety cases** (generating v generating/decommissioning)
  - Risk of legacy **contamination** on new build site
  - Competition for local **resources**: transport and access; workforce; grid capacity
  - Cumulative radiological dose impacts?
- **What does a legacy nuclear neighbour mean for licensing and permitting timelines?**
  - Legacy contamination **liabilities**:
    - Grant of new licence can immediately channel the legacy liability to the new operator
    - Need to ensure licence not granted until project definitely proceeding

Dealing with licensing risk in Articles and Shareholder Agreements

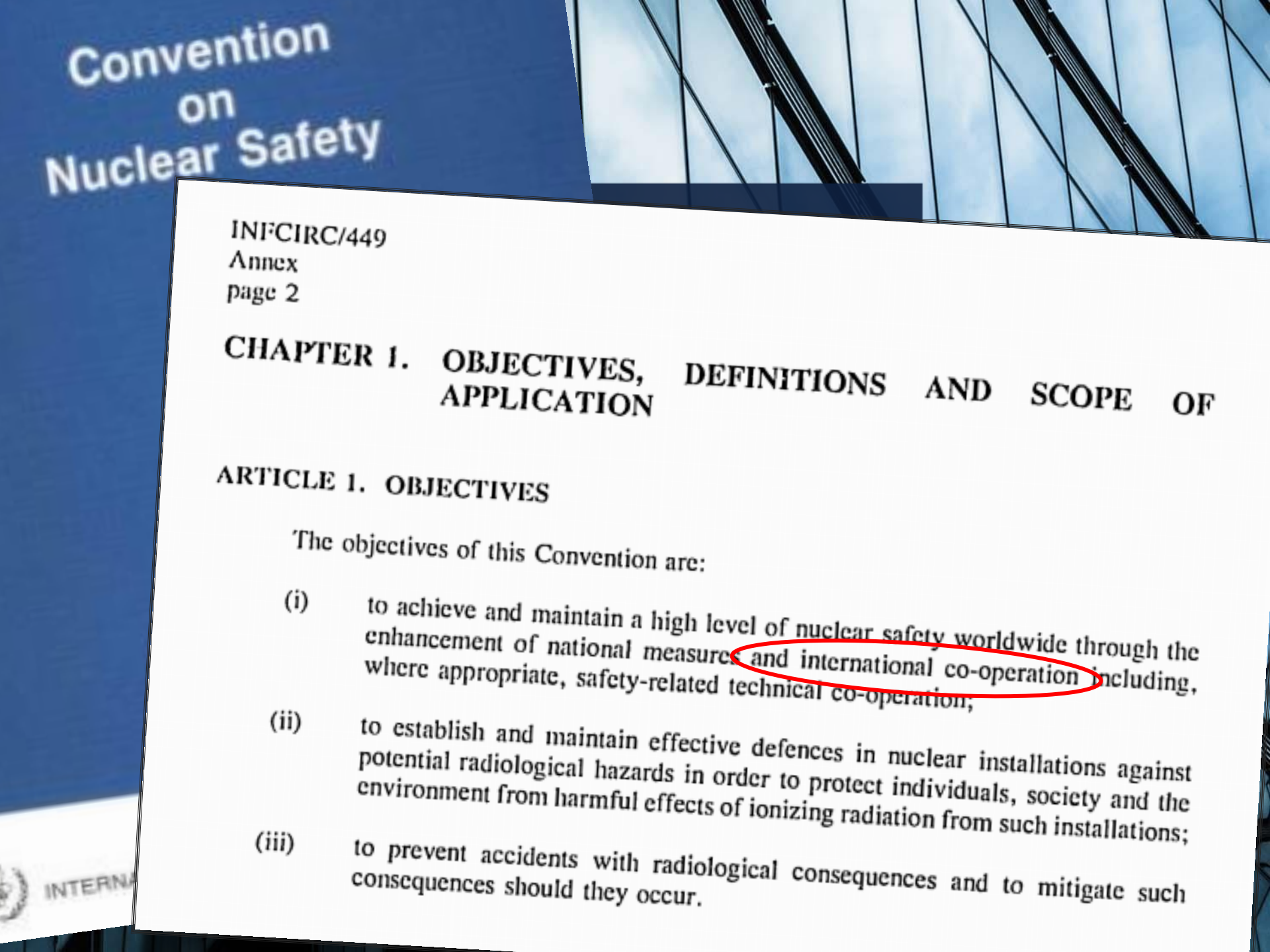
Engaging regulators to manage commercial risks in licensing timelines

- **Timing**
  - Increasing certainty and predictability (eg, UK planning reforms)
  - Holding consents with immediate implementation costs: for synchronisation with project investment milestones
- **Predictability**
  - Early engagement
  - Early design certification
  - Electricity markets

Harnessing political goodwill to facilitate licensing and permitting

- **Community engagement**: alignment of national and local processes to facilitate parallel regulatory processes
- Building the **supply chain**
- **International** relations

The future: Increasing interest from regulators and governments to identify future opportunities to improve coordination of licensing processes with investment and development processes.



CHAPTER 1. OBJECTIVES, DEFINITIONS AND SCOPE OF APPLICATION

ARTICLE 1. OBJECTIVES

The objectives of this Convention are:

(i) to achieve and maintain a high level of nuclear safety worldwide through the enhancement of national measures and international co-operation including, where appropriate, safety-related technical co-operation;

(ii) to establish and maintain effective defences in nuclear installations against potential radiological hazards in order to protect individuals, society and the environment from harmful effects of ionizing radiation from such installations;

(iii) to prevent accidents with radiological consequences and to mitigate such consequences should they occur.

Thank you