

An aerial photograph showing a large LNG carrier ship with orange spherical tanks on the left, and a complex industrial facility with large storage tanks and piping on the right, situated near a body of water.








 FTI Consulting Energy Global Competency Center

Road to FID Advisory Services for downstream LNG assets

Overview of expertise in de-risking and accelerating the Road to Final Investment Decisions ('FID')

We are a global advisory firm with extensive experience in providing strategic advice in Road to FID for LNG terminals

Overview of our Road to FID value proposition for LNG terminals

Overview of FTI Consulting	Our Road to FID Advisory Capabilities at a Glance	Results
<div><div><div>■ FTI Consulting is the #1 global expert-led firm for organizations facing crisis and transformation</div><div>■ Each practice area of FTI Consulting includes leading experts defined by their depth of knowledge and track record of delivering client value when it matters most</div></div><div><div></div><div></div><div></div></div><div><div>8,000+</div><div>Countries & territories</div><div>\$7.7 bn</div><div>Employees worldwide</div><div>Market capitalization⁽¹⁾</div></div></div> <div><div>The FTI Consulting Energy Team</div><div><div></div><div>Our team of economists, former industry practitioners, regulators and diverse professional expertise in energy, finance and strategy brings rationality to economic decisions in the energy sector</div></div><div><div></div><div>We provide end-to-end strategic Road to FID advisory, leveraging three specific differentiators:</div><div><div>1. Direct hands-on experience working for LNG terminals</div><div>2. Technical support from reputable partners</div><div>3. Unparalleled expertise in economic and financial analysis applied to the energy sector</div></div></div></div>	<div><div><div>Regulatory and market</div><div>■ We have a deep understanding of economic regulations applicable to LNG terminals and know how establish a clear view of their functioning</div></div><div><div>Commercial and Operational</div><div>■ We have an extensive track record supporting clients to clarify economic, commercial, and operational conditions for LNG terminals to build well-developed business cases</div></div><div><div>Project Finance, Capital Raising, and Tax</div><div>■ We bring capabilities in project finance to help structure project contractual frameworks, raise equity and debt and optimize the capital structure</div><div>■ We can also access specialized tax expertise</div></div><div><div>Non-Technical Risks and Reputation</div><div>■ FTI Consulting strategic communication team is experienced in proactively identifying and mitigating non-technical risks and managing reputation to ensure the success of the project</div></div><div><div>Technical and Engineering</div><div>■ Our technical partnerships with LNG terminal operators allow us to solve technical & engineering questions seamlessly</div></div><div><div>Transverse actions (PMO)</div><div>■ FTI Consulting experts are experienced in coordinating FID-related activities to ensure alignment between workstreams and stakeholders while providing strategic oversight</div></div></div>	<div><div></div><div>De-risk the Road to FID</div></div> <div><div></div><div>Accelerate the Road to FID</div></div>

The Road to FID is a systematic process with a series of stages and evaluations used to assess and ultimately finance LNG terminal projects

What is the Road to FID?

Lower cost of alterations in the project

Higher costs of alterations in the project

	Concept definition	Pre-FEED	FEED	FID	EPC
About each step	<ul style="list-style-type: none"> Initial exploration of project idea and potential viability Preliminary assessment of project risks and opportunities 	<ul style="list-style-type: none"> More detailed technical and economic analysis Refining scope Identifying equipment and technology needs 	<ul style="list-style-type: none"> Detailed engineering and design work Comprehensive cost and schedule estimates Detailed risk assessment and mitigation plan 	<ul style="list-style-type: none"> Comprehensive review of all project aspects Final economic analysis and risk assessment Project approval/refusal 	<ul style="list-style-type: none"> Design and engineering work Procurement of all necessary equipment and materials Physical construction
Key decisions	<ul style="list-style-type: none"> Whether concept merits further investigation and resources Technical options to explore Initial project scope 	<ul style="list-style-type: none"> Selection of preferred technical concept Go/no-go decision for progressing to FEED stage Preliminary budget and schedule estimates 	<ul style="list-style-type: none"> Finalization of technical specifications Selection of key contractors and suppliers Refinement of project execution strategy 	<ul style="list-style-type: none"> Whether to proceed with full project implementation Approval of budget and schedule Commitment of resources 	<ul style="list-style-type: none"> Awarding of major contracts
Illustrative deliverables	<ul style="list-style-type: none"> Concept study report Preliminary economic assessment Initial risk assessment 	<ul style="list-style-type: none"> Pre-FEED study report Updated economic model Preliminary project execution plan 	<ul style="list-style-type: none"> FEED study report Benchmark of relevant regulatory frameworks and regulatory regime design Capacity allocation considerations Contractual architecture Equity sale and project finance roadmap 	<ul style="list-style-type: none"> Draft Heads of Agreements (Business Position Paper, Operational Position Paper, Flow Model, Economic Model) Vessel lease or buy strategy Development and investment strategy Investor outreach strategy 	<ul style="list-style-type: none"> Detailed design documents Procurement contracts and purchase orders Construction progress reports

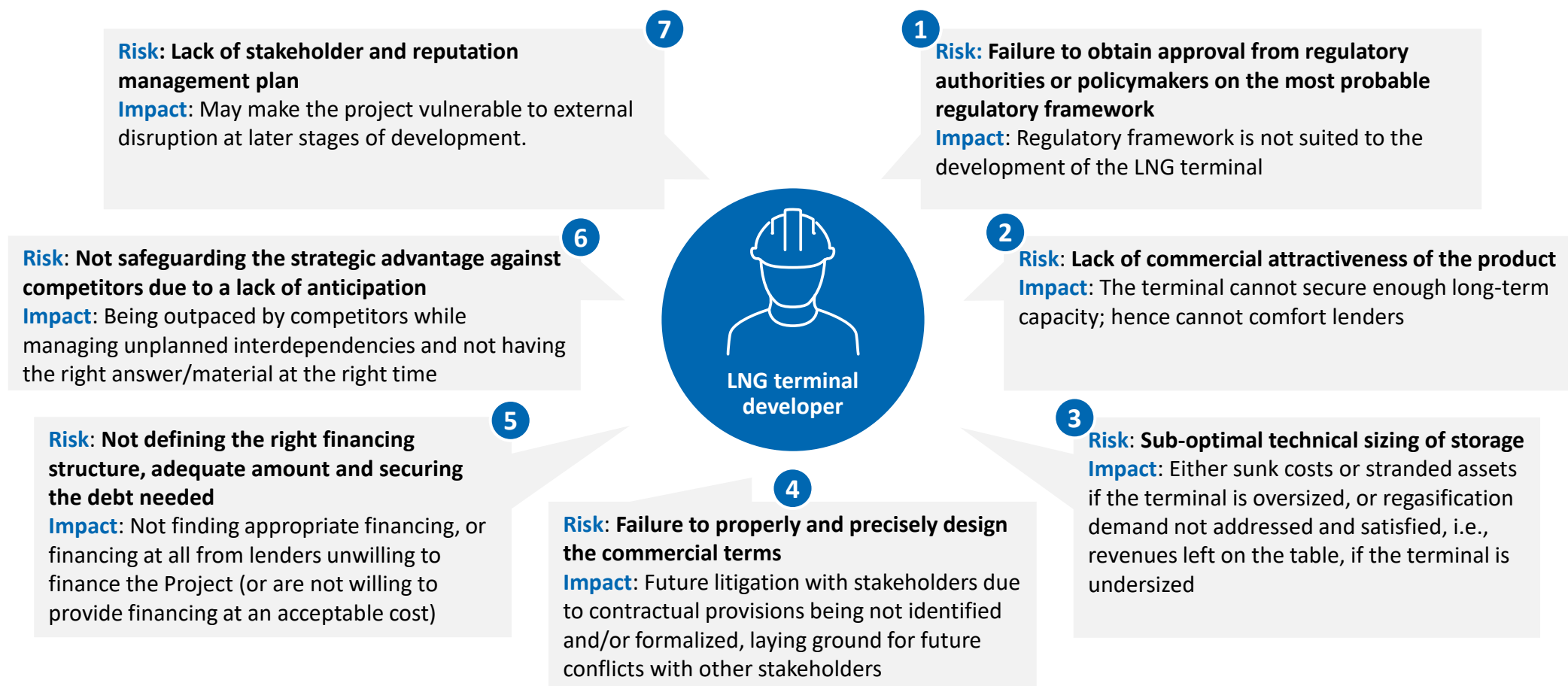
Notes: FEED = Front End Engineering; FID = Final Investment Decision; EPC = Engineering, Procurement, and Construction.

Sources: FTI Consulting

Navigating the road to FID carries potential risks – several challenges must be addressed before reaching a final investment decision

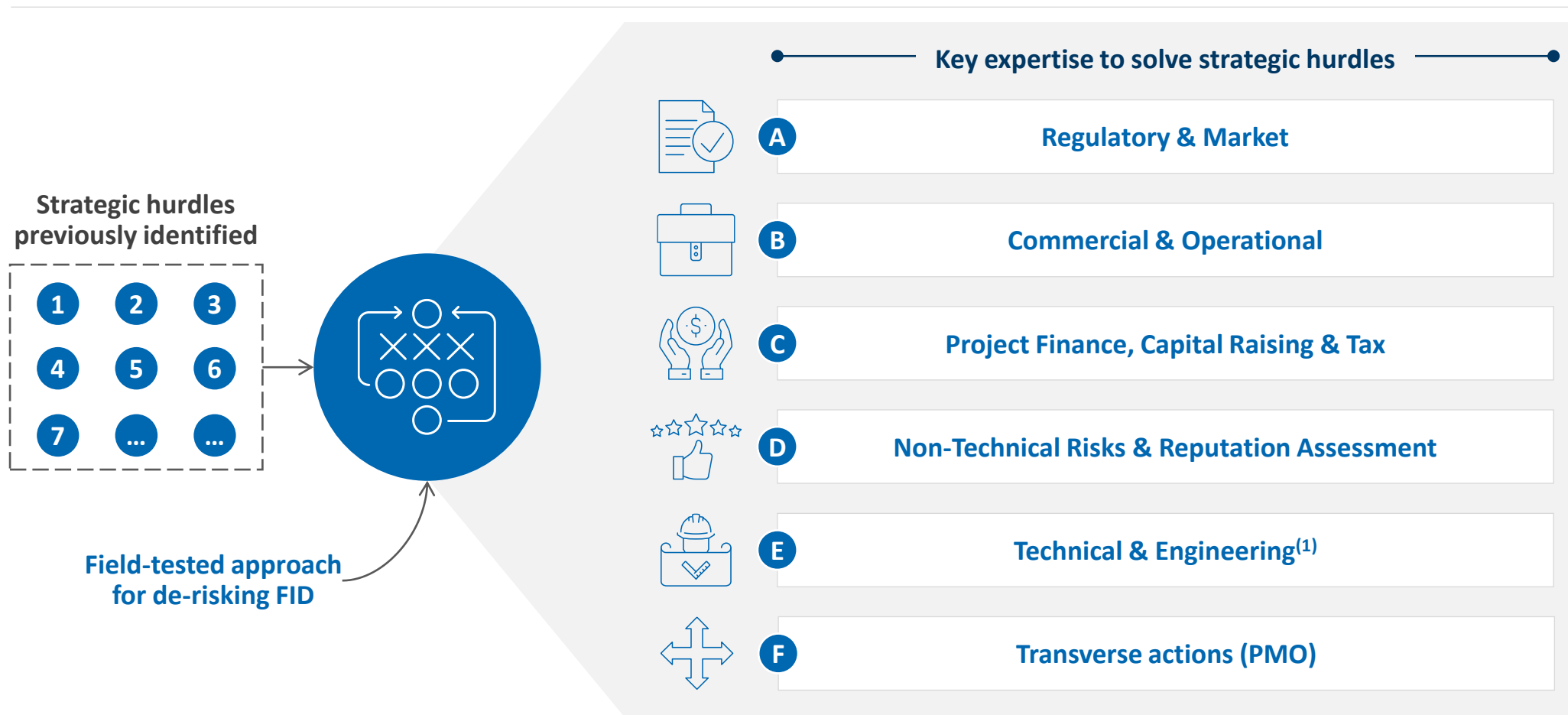
What are the challenges typically faced?

Strategic hurdles on the path to FID: Key LNG terminal development challenges



Our field-tested six stage approach can help de-risk the Road to FID

How we make a difference: A 'one-stop shop' solving critical challenges along the way

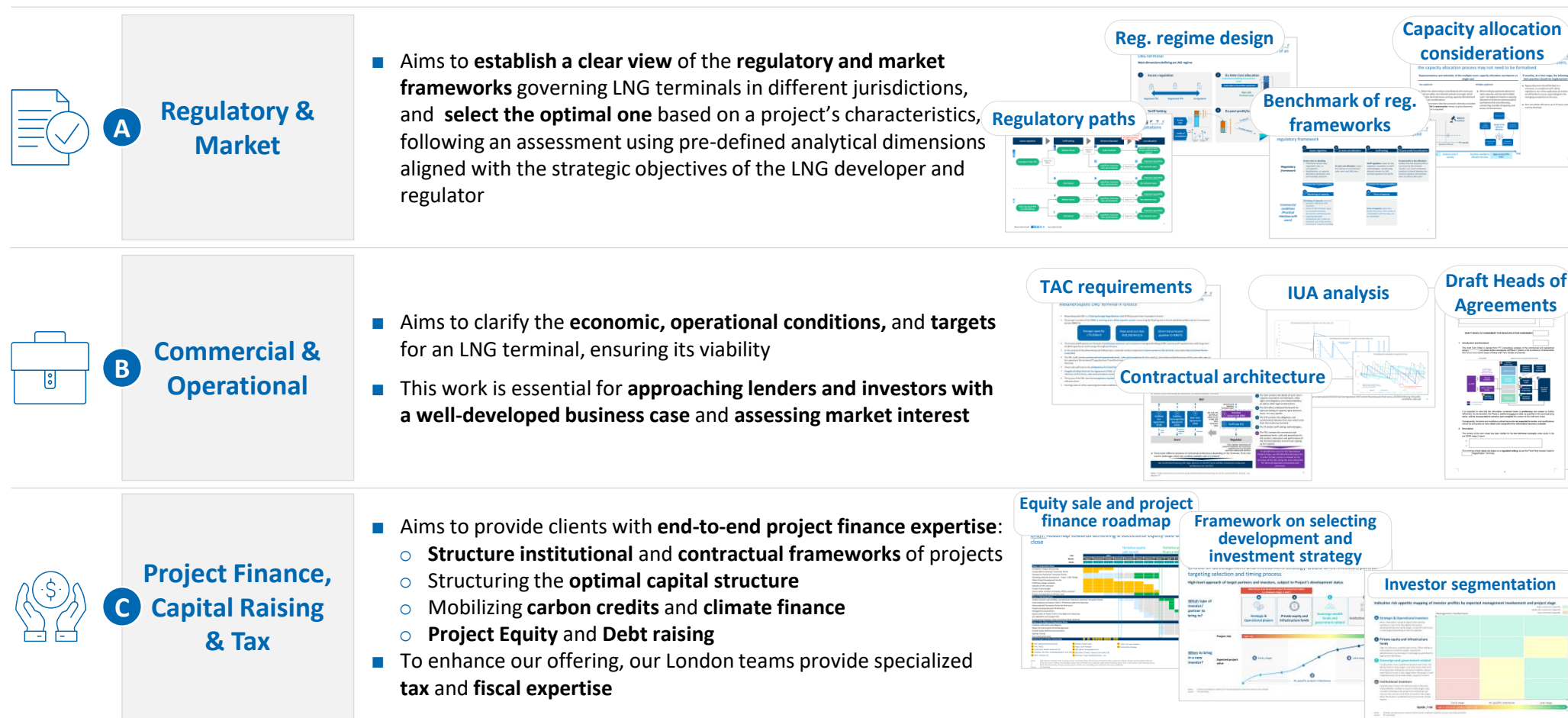


Notes: (1) Expertise provided through collaboration with a specialized technical partner, not through internal resources

Sources: FTI Consulting

Gaining regulatory and market clarity, designing optimal commercial and operational model and raising capital

First three key components to de-risk the Road to FID

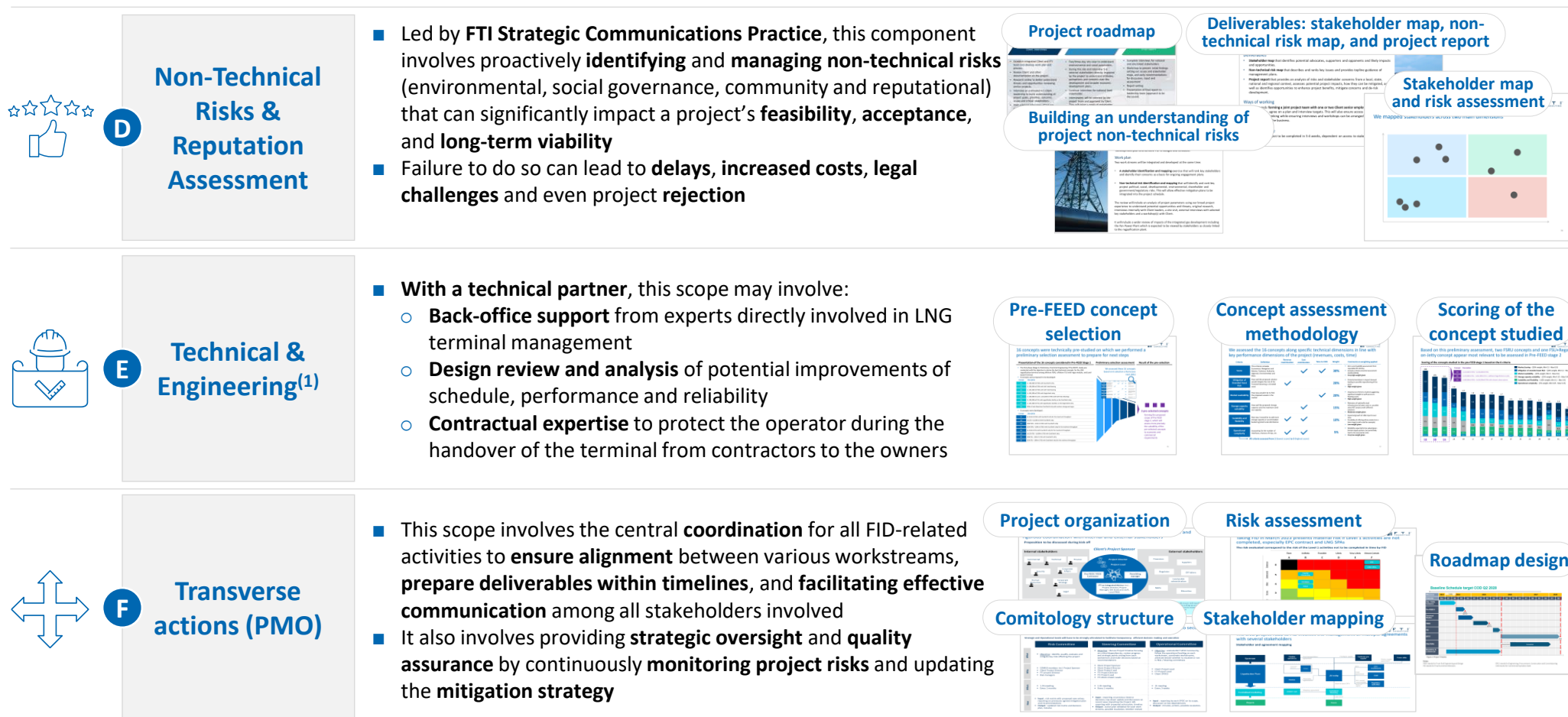


Notes: TAC = Terminal User Access Code; IUA = Inter-User Agreement; (1) Expertise provided through collaboration with a specialized technical partner, not through internal resources

Sources: FTI Consulting

Identifying and mitigating non-technical risks, providing technical support and coordination advice

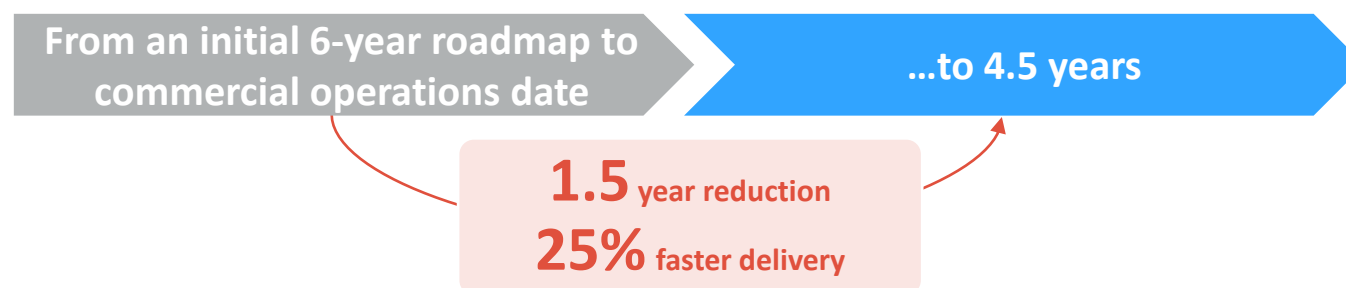
Final three key components to de-risk the Road to FID



Our approach has accelerated projects, reducing time-to-FID by approximately 25% for a recent client

What was the outcome?

Accelerated road to FID from a real engagement



How we do it



Optimizing the critical path: we streamline the FID process by carefully sequencing and parallelizing key activities to compress timelines



Leveraging global and comprehensive expertise: we deploy a network of specialists across relevant domains to identify bottlenecks early, create mitigation strategies, and provide support at critical junctures

Key benefits of an accelerated timeline



Expedited energy security: accelerating the road to FID strengthens a country's energy supply sooner, maximizing the number of procurement options and reducing dependencies to one supplier



Better foresight: a faster progression to FID allows clients to secure offtake agreements and financing ahead of market shifts



Better project economics: shortening pre-FID timelines allow for earlier revenue generation

Asian Liquified Natural Gas ('LNG') terminal developer

FTI Consulting were appointed as their strategic and expert advisory board to design, de-risk and support in the journey to FID for the new asset.

The client was exploring the development of a regasification terminal and preparing to transition within a liberalised natural gas market. The client had already undertaken pre-feasibility studies and secured board approval for a project timeline with ambitious commissioning milestones.

To support them in their goals, the client looked to FTI Consulting to join a strategic advisory board composed of experts in LNG Regulation, LNG economics and commercials, as well as project finance to ensure overall consistency across the project and provide the necessary expertise to de-risk and accelerate the road to FID.

OUR IMPACT



By providing clarity and understanding on the **best regulatory framework**, the client was able to advocate to State stakeholders and the regulator, serving both the national agenda and the client's development needs.



After being equipped with compelling **business and economic models**, detailing the design of the tariff structure and target operating model, the client had a **strong foundation to support its discussions** with bankers and the development of commercial contracts.



Coupled with **fit-for-purpose** financing options, the client was able to **secure the financing strategy of the project**.

OUR ROLE

FTI Consulting was appointed as strategic advisory by an Asian utility to design and conduct the road to FID for a new LNG regasification terminal.

FTI Consulting delivered in the first phase, three work packages on regulatory framework design, business modelling and benchmark of financing structures.

- Benchmarking existing and probable regulatory and commercial frameworks from neighbouring and European countries, our experts provided a thorough assessment for the client to be able to choose the most optimal regulatory and commercial framework.
- Our experts created a business model to strengthen the business case and assess market interest, as well as developing an economic model to design the tariff structure. The team then further elaborated the target operating model, serving as the foundational framework for commercial contract components.
- Our team analysed financing options and developed case studies to provide an in-depth analysis of shortlisted comparable assets and identify key relevant financing features for the project.

We have carried out a regulatory benchmark study of LNG terminals in selected regions to identify the most optimal framework for the project

Regulatory and Market

Illustration: Benchmark of regulatory frameworks in Europe and Asia



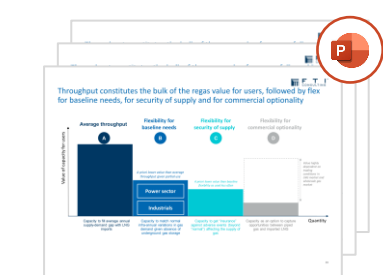
Comments

- For an LNG terminal developer, we have carried out an extensive, multi-regional **regulatory benchmark study** of LNG terminals aiming to **establish a clear view of the regulatory and market frameworks governing LNG terminals in different jurisdictions**
- The study compared regulatory frameworks applicable to LNG terminals in selected regions across **four main analytical dimensions**:
 - 1 Access regulation
 - 2 Cost allocation
 - 3 Tariff-setting
 - 4 Revenue allocation
- Based on the outcome of this study, we have **identified the most optimal regulatory framework** for the LNG project, in line with strategic objectives from the LNG developer and the regulator

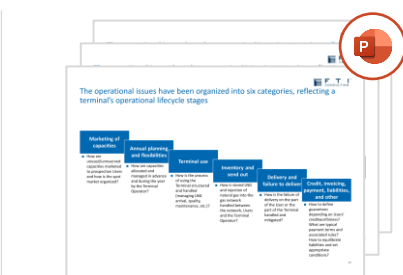
We defined a comprehensive commercial and operational framework to build a robust business case before investor outreach

Commercial & Operational

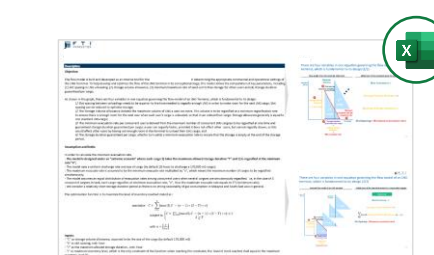
Illustration: Business Position Paper, Operational Position Paper, Flow Model, Economic Model, Draft Term Sheet and Vessel Buy or Lease Strategy



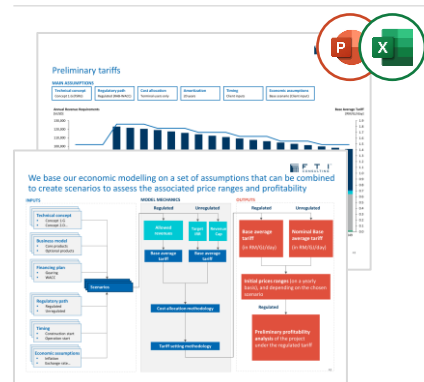
1 Business Position Paper



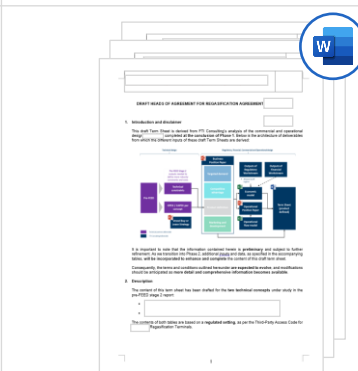
2 Operational Position Paper



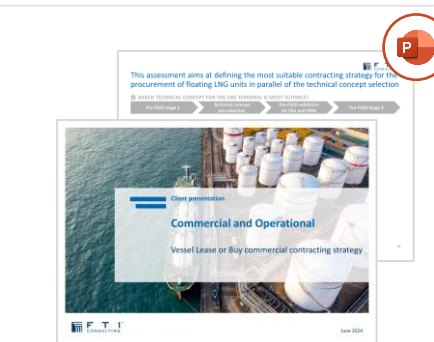
3 Flow Model



4 Economic Model



5 Draft Term Sheet



6 Vessel Lease or Buy Commercial Strategy

Comments

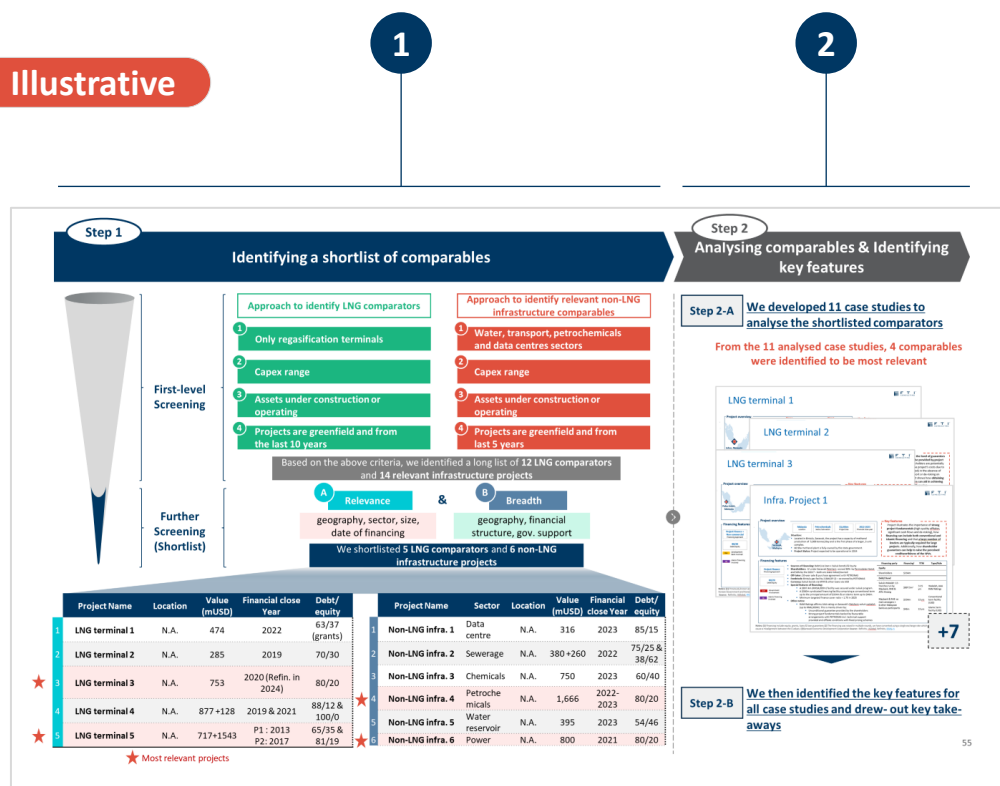
- Before engaging lenders and investors, we first needed to clarify its commercial and operational conditions
- Our approach was focused to **strengthen the business case and assess market interest**, leading to the preparation of **six main deliverables**:
 - 1 Business Position Paper** outlining the terminal's value proposition
 - 2 Operational Position Paper** setting out the optimal operational framework
 - 3 Flow model** to optimize storage based on pre-determined variables
 - 4 Economic model** to set expected tariffs based on regulatory, technical and commercial assumptions
 - 5 Draft Term Sheet** outlining commercial terms and conditions
 - 6 Vessel Lease or Buy Strategy** to optimize acquisition decisions

We supported our client in benchmarking financing options and success stories for LNG regasification terminals

Project Finance, Capital Raising & Tax

Illustration: Benchmarking and financing structures and market research on local financial market conditions

Illustrative



Comments

- As a first step, towards securing financing, we have supported our client in **benchmarking financing options** applicable to LNG terminals

- 1 First, we made a **shortlist of comparable LNG terminals and non-LNG infrastructure** based on a **two-step** screening process:

- The **first-level screening** aims to **identify the universe of comparable assets** by filtering for key criteria such as asset type, CAPEX range, status (under construction or operating), and start of commercial operations
- The **second-level screening** aims to **focus on the most relevant assets** by filtering for relevance (geography, sector...) and breadth (financial structure, government support...)

- 2 Then we prepared a set of case studies to provide an in-depth analysis of shortlisted assets

Discover Your Team

Our Senior Gas/LNG Experts who already led and delivered Road to FID mandates



Emmanuel Grand
Senior Managing Director, FTI Consulting

- Energy economist with over **17 years of advisory experience** in the energy and infrastructure sector, specializing in matters related to contracts, markets, and regulations
- Advised on regulatory schemes in over **35 countries**
- Supported energy & infrastructure contracts negotiation of **over \$100 billion** value combined
- Selected as independent expert in more than **20 energy disputes**, with damages of up to **\$5 billion**



Stéphane Woerther
Managing Director, FTI Consulting

- More than **20 years of experience** developing a deep expertise in economic and financial advisory in the energy and climate finance areas, gained across top global institutions, including Lazard, Engie and NASA
- Specializing in structuring, financing, restructuring of energy infrastructure projects, including renewable IPP projects, in developed and emerging markets



Sahil Agarwal
Managing Director, FTI Consulting

- More than **12 years' experience** advising regulators, governments, utility companies and investors on regulatory and infrastructure finance issues including in relation to new LNG assets
- He advised a Middle Eastern Government on 11 MTPA LNG Strategy and conducted a financial feasibility study for a UK energy major on gas to hydrogen storage conversion



Grégoire Saison
Senior Director FTI Consulting

- More than **12 years of experience** in advising global utilities on their strategic roadmaps and asset management issues, including several new LNG value chains
- Advised the development of **two LNG Terminals**, leading the business, economic and operating modelling to de-risk and accelerate road to Final Investment Decision for an Asian Terminal Developer, and assessing the value for security of supply to secure essential State support.
- Advised the transactions for more than **40 LNG carriers**



Andrew Chin
Senior Director, FTI Consulting

- **8 years of experience** advising companies and regulators on economic regulation in Energy, across a range of Asian geographies
- Reviewed regulatory position paper for an Asian LNG terminal developer, advised a gas storage company on its regulatory strategy, assessed potential conflicts of interests in system operator arrangements for a regulator and explored options for alternative system operator structures



Mehdi Aid
Director, FTI Consulting

- **11 years of experience**, including **three years in the LNG Business Unit of Engie**; advised more than **10 LNG players** on their new projects and contracts
- For an LNG terminal developer, he drafted the Terminal Access Code and the related clauses in Terminal Use Agreements that fully defined the functioning of the service for the Users
- For an Asian utility, Mehdi designed the commercial and regulatory frameworks for the small-scale LNG activities of a new FSRU in Asia, after conducting an international benchmark on relevant applicable frameworks



Experts with Impact™