

Strategic Risks associated with developing a European Shale Gas Industry



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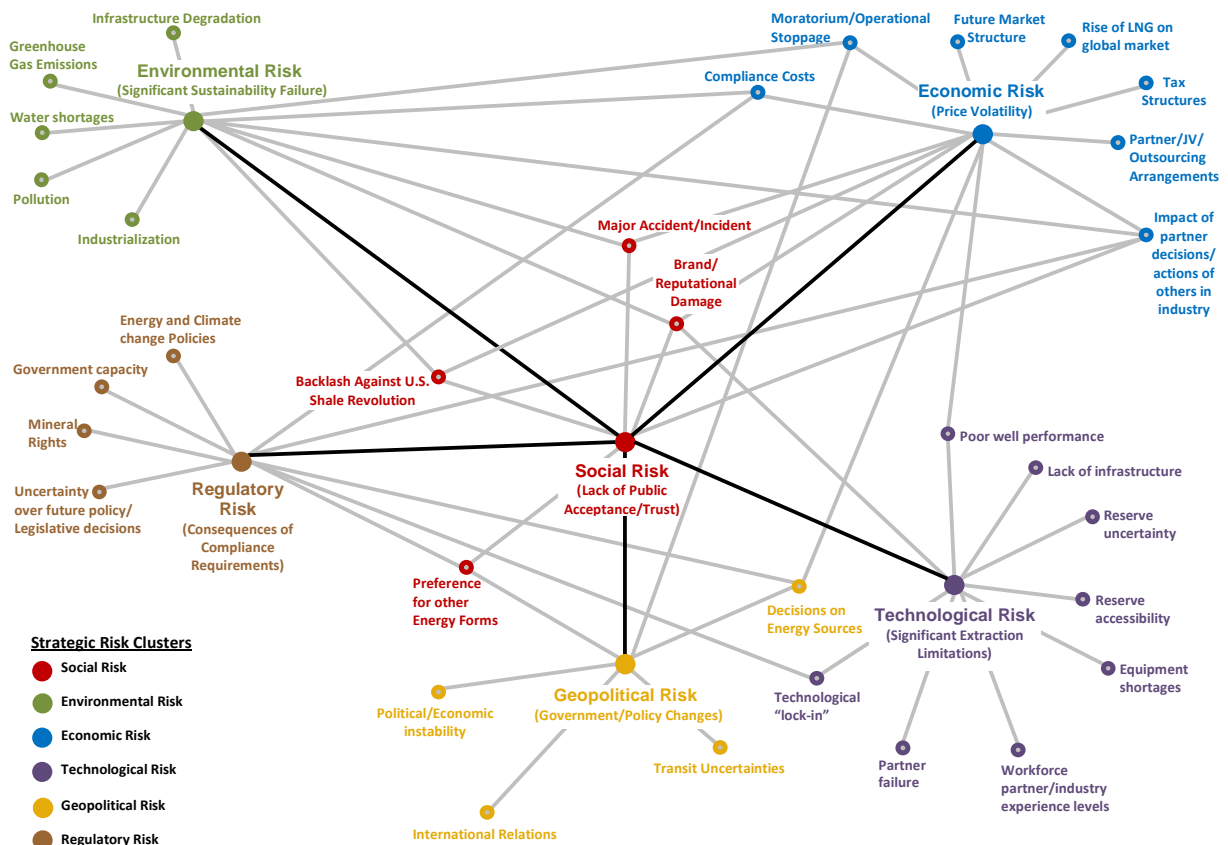
Strategic Risks associated with developing a European Shale Gas Industry

There is much that can be done today to mitigate strategic risks, even if it is still years until shale gas is produced in economically viable quantities in Europe. Of equal import is that industry failure to begin addressing those strategic risks today – even before final investment decisions are made – has the potential to impede opportunities to develop the shale gas industry in Europe tomorrow.



Executive summary

This study examines the most consequential risks for companies contemplating entry into the European shale gas market and identifies six clusters of strategic risks: social, environmental, economic, regulatory, geopolitical, and technological. Further, in showing linkages between various elements of strategic risks, it portrays how actions to mitigate risk in a cluster area can create opportunities and lower risks in other areas. Similarly, it shows how failure to address risks in a cluster area can increase risks in other areas. The figure below displays the strategic risks clusters and the linkages between them.



Regarding shale gas development in Europe, there is both risk and opportunity over the next 10 years. Consequently, this study offers nine considerations for companies and the industry as a whole as they contemplate future investments and development.



Maintain awareness of strategic risks at all levels of the enterprise. Strategic risks pose the most consequential risks to a company's ability to carry out its business strategy. Yet, many companies focus their risk management lenses on near-term issues and fail to also remain focused on longer-term risks and opportunities. And, even when strategic risks are identified early in risk assessment processes, they are frequently minimized or ignored over time. But, strategic risks anticipated far enough ahead of time and appropriately mitigated can create market opportunities and competitive advantages – and this is possible in the European shale gas context.

Actions today mitigate tomorrow's risk and increase tomorrow's opportunities. There are clear future opportunities if proactive measures are taken today to counter misperceptions and to address social and environmental impacts. Similarly, anticipating and addressing emerging and longer-term regulatory risks can create future market opportunities and competitive advantages.

Integrated approaches are required now to communicate with stakeholders. Integrated efforts within companies as well as across the industry to communicate with various stakeholder populations can pay immediate and long-term dividends. As occurred in the early stages of the US shale boom, individual companies, many quite small, are conducting most stakeholder efforts, with the majors, in many cases, poised to enter later. Competition between companies limits cooperation; however, an industry-supported group must aggressively reach out to stakeholders with coordinated

information and efforts to complement what companies do at more local levels.

Social risks pose the greatest threat to shale gas development in Europe. How the public perceives the impact of shale gas development on their welfare or their environment is the most important factor in addressing social risks. Companies should not discount the potential risks posed by social media or the need to anticipate opposition efforts to influence and expand their own stakeholder base.

External factors can adversely affect development of the European shale industry. Actions in the US – even perceptions of industry actions – reverberate across Europe. An incident or perceived incident in the US could unhinge shale development efforts in Europe, which supports the need for greater transparency, coordination and integration across the industry.

Culture, history, policy and environment priorities influence shale gas acceptability. Industry or company practices that worked in the US may be insufficient for the unique issue/stakeholder combinations in Europe. “Drivers” for developing shale gas may not resonate the same way as they do in the US nor will they carry the same weight across Europe; they are often influenced by national cultural preferences and energy priorities.

The regulatory landscape reflects the uneven acceptance for shale E&P across Europe. National policies are more relevant than EU regulations, presenting both risk and opportunity. Countries have



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different regulatory emphases and levels of regulatory maturity governing hydrocarbon extraction. Greater creative tension can be expected between operators and regulators than in the US, and permitting processes are likely to take longer than in the US.

There is significant cost uncertainty with European shale gas. E&P costs are projected to be 2-3 times higher than comparable activities in the US. Environmental, regulatory and tax protocols are in flux and will add to compliance costs. In addition, the lack of experienced service and drilling operators for unconventional gas, as well as inadequate transportation and pipeline networks in some countries will add to production costs.

Industry “best practices” rather than mere regulatory compliance must be the norm. The European shale gas playing field is tenuous. To overcome distrust toward the industry and to reassure skeptical publics, industry should commit to continual product improvement, best practices and innovative approaches to address social and environmental concerns; failure to do so is a major strategic risk and jeopardizes the European shale gas industry.

Concluding Points. Much discussion to date on European shale gas development has been steered by events occurring across the Atlantic in North America, particularly by events where industry did not employ “best practices.” And many of these discussions have been

informed largely by emotion and hype rather than by a cost/benefit analysis. But, that is the field on which the shale debate is playing out in Europe. It is a field that companies must understand in order to make appropriate decisions on (1) whether or not to enter into the European shale game, and (2) if they do enter onto the field, the risks that are of the greatest consequence to executing their business strategies.

The shale gas landscape in Europe continues to evolve, and much of its dynamism results from changing national policies. As our cursory assessment of five countries demonstrated, there are significant differences in risk levels between countries, and many of these differences are attributable to environmental and energy priorities (a summary is depicted on the following page). Numerous reviews are currently underway which will likely influence policy changes in several countries over the next 18 months; thus, we can anticipate continued volatility across the shale gas landscape.

The overriding conclusion of this study is that there is much that can be done today to mitigate strategic risks, even if it is still years until shale gas is produced in economically viable quantities in Europe. Of equal import is that industry failure to begin addressing those strategic risks *today* – even before final investment decisions are made – has the potential to impede opportunities to develop the shale gas industry in Europe tomorrow.



CURRENT RISK SNAPSHOT

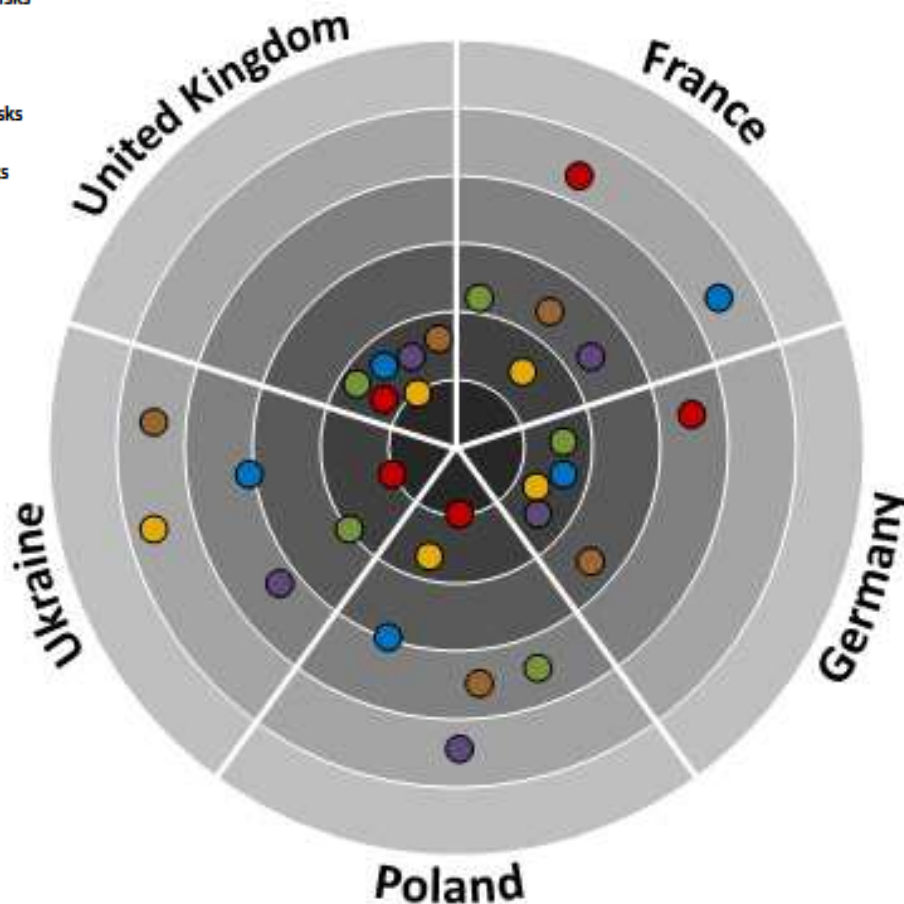
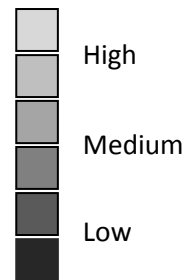
Composite snapshot of levels of risks associated with shale gas development in five European selected countries

A key feature of strategic risk management is to focus on future trends and events. But it is also helpful to establish a strategic risk baseline of sorts, and this is what is provided in the Current Risk Snapshot. The Snapshot depicts an assessment of the current strategic risk landscape in five countries exhibiting strong potential for shale gas development and varying degrees of strategic risks – Poland, Ukraine, France, Germany, and the United Kingdom. It does not forecast future strategic risks. That is certainly needed and might involve multiple scenarios to reflect evolving policies, national economies, environmental priorities, etc., but it remains for future studies.

Strategic risks

- Social Risks
- Environmental Risks
- Economic Risks
- Technological Risks
- Geopolitical Risks
- Regulatory Risks

Level of risks





What the Current Risk Snapshot tells us:

Poland, Ukraine and the UK display the lowest levels of social (red) risk, while Germany and France display significantly higher levels.

Ukraine and Poland, the two countries most advanced in developing shale gas sectors, displayed the highest levels of regulatory (brown) and environmental (green) risk; Ukraine also displays the highest geopolitical (yellow) risk level, and only France displays higher economic (blue) risk, as a result of its ban on fracturing.

In assessing overall strategic risks associated with entering the European shale gas market, social risk appears to be the primary strategic risk determinant, as evidenced by Germany's and France's current reluctance to embrace shale gas development.

Companies are generally accustomed to operating in locales with lower social risk levels and higher regulatory, geopolitical, technological and even economic risk levels.

Particularly in operating areas where social risks are high, companies need to refocus their efforts to deal with this particular form of strategic risk *prior* to entering the market.



ABOUT THE AUTHORS

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