STUDENT BRIEF

ENHANCE PUBLIC PERCEPTION OF SMALL MODULAR REACTORS

Rolls-Royce

Summary

Rolls-Royce is a global leader in engineering, known for its work in aerospace, marine, energy, and nuclear power. One of our key focus areas is Small Modular Reactors (SMRs), which are compact nuclear reactors designed to provide low-carbon energy in a scalable and cost-effective way. But nuclear energy isn't without its challenges, especially when it comes to public trust and strict regulations. We'd like your help to think through how SMRs can overcome these barriers and become widely accepted. By the end of this project, you'll have explored real-world issues in energy policy, public perception, and market strategy — and you'll have practical ideas to show for it.

KEY WORDS

Nuclear energy, Small Modular Reactors, public perception, energy policy, market strategy, regulatory challenges

INDUSTRY

Engineering, Energy, Nuclear Power

FOCUS

- Public perception of nuclear energy
- Regulatory challenges in key markets
- Competitive advantages of SMRs
- Market opportunities for SMRs

Brief

I'm part of the team at Rolls-Royce working on new ways to meet the world's growing need for low-carbon energy. One of the most promising technologies we're developing is Small Modular Reactors, or SMRs. These are much smaller than traditional nuclear power plants, which makes them cheaper and faster to build. They're also designed with safety and efficiency in mind. But even with all their potential, SMRs face big challenges — especially when it comes to gaining public trust and navigating strict regulations. That's where we'd like your perspective.

Imagine you're part of a team advising us on how to make SMRs more accepted and successful in different parts of the world. Here's what I'd like you to focus on:

1. **Understand the regulatory landscape.** Look into the key rules and approval processes for nuclear energy in major markets like the UK, EU, and US. What are the biggest hurdles SMRs face? What could Rolls-Royce do to work within or influence

these frameworks?

2. **Explore public perception.** Research how people feel about nuclear energy in general and SMRs in particular. What concerns do they have about safety, waste, or environmental impact? Find examples of successful public engagement campaigns — in nuclear or other industries — and think about how we could apply similar strategies.

3. **Analyse the competition.** Compare SMRs to both traditional nuclear reactors and other low-carbon energy solutions, like wind or solar power. What makes SMRs stand out? Where do they fall short? How can Rolls-Royce position them to highlight their unique strengths?

4. **Identify high-potential markets.** Based on your research, which regions or industries are most likely to embrace SMRs? Think about factors like energy demand, government policies, and existing attitudes towards nuclear power.

A strong piece of work will tie all of this together into a strategy document. It should include clear recommendations for how Rolls-Royce can improve the adoption and acceptance of SMRs, supported by evidence from at least 2–3 sources you've found online. On top of that, I'd like you to create a short presentation summing up your key points — something brief but persuasive that we could show to someone who's new to the topic.

Looking forward to seeing how you tackle this — SMRs have the potential to make a real difference, and it'll be interesting to see what fresh ideas you bring to the table.