



CASE STUDY

Royal Bikes: The scenario

Royal Bikes is a fictitious UK-headquartered and AIM-listed global bicycle manufacturer, established in Leeds in 1960. It maintains a small facility in the North of England. However, having merged with an Italian company in 1995, now conducts most manufacturing at a factory in Emilia-Romagna, Northern Italy.

Royal experienced strong growth post-merger, with double-digit annual growth for the past two decades. However, financial performance has weakened significantly in the last three years, with a 45% decline in EBITDA in 2025. Royal recently appointed a new CEO, who initiated a strategic review, with the aim of generating long-term success.

The primary contributor to Royal's declining profitability has been over-stocking during the cycling "boom" of the pandemic, followed by heavy

discounting as demand fell. Tariff uncertainty, competition from lower cost manufacturers and weak economic conditions in key markets have also created a challenging environment for the industry.

45%

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Climate-related impacts on recent performance

The conditions for the industry are expected to stabilise. However, the shock to Royal's profitability has been exacerbated by climate-related risks and costs arising within the company's production model. Royal Bikes was optimised for a stable world, now it must operate in a system disrupted by climate risks and non-linear impacts.

Management has determined that addressing these within Royal's strategy will be important to the company's future success:

- **High energy and transportation risks and costs.** The energy mix in Royal's primary facility has left the company

with low energy efficiency and highly exposed to rising energy costs. With an extensive, globally dispersed supply chain, Royal has also incurred high and rising transportation costs in recent years.

- **Exposure to rising physical climate risks in Royal's own operations and supply chain.** Uninsured losses have been incurred from two significant weather-related business interruptions: flooding at Royal's factory in Emilia-Romagna; and the California wildfires in early 2025, which impacted a key supplier.

Proposed strategic priorities

Management has revisited Royal's business strategy and developed three strategic priorities for the board's consideration. These are set out below:

- Strengthen the production model.
- Reduce costs and build supply chain resilience.
- Pivot Royal's product catalogue for future growth.



The exercise discussion

You are on the board of Royal Bikes at a strategic inflection point. Recent climate-related events, including flooding and heatwaves, may signal a shift from episodic disruption to a new, unstable operating regime. Your responsibility is to steer the company through this disrupted environment.

This task is intended to spark a broader discussion on the climate-related risks and opportunities that you have seen first-hand in your career and action you may have taken to address them. Please use your own experience

of managing climate risk and responding to real impacts while pursuing opportunities to enhance value, to inform your thoughts.



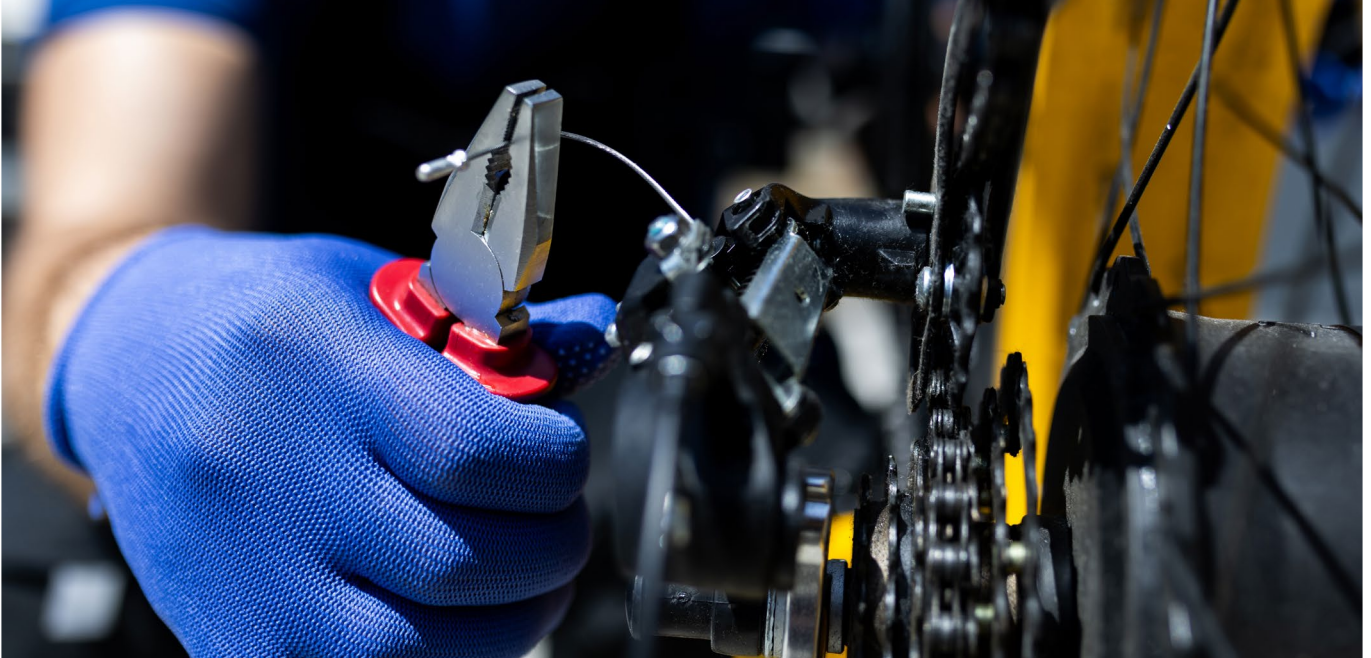
Please consider and discuss the following questions:

- 1. Has management identified the right strategic priorities, and do these options address the risks and opportunities that can be expected to drive value in the future?**
- 2. How could Royal Bikes recalibrate its strategy to consider tail risks, climate tipping points and the potential for cascading economic, financial and societal impacts that could fundamentally alter the operating environment?**
- 3. What additional priorities could the board pursue to bolster resilience, identify opportunities to grow value, and manage long-term systemic risks?**
- 4. What is the Royal board's role in this process, and what questions should you ask the executive team as priority to address these challenges?**

Note: Although Royal has a long-term net zero ambition, the company does not yet have a transition plan. Management has therefore positioned the consideration of its strategic response as an initial step towards the development of a transition plan that addresses both decarbonisation and adaptation actions.

STRATEGIC PRIORITY ONE:

Strengthen the production model



Options considered by management include:

- Introducing more energy-efficient production processes.
- Electrifying the company's primary production facility in Northern Italy, shifting from existing gas-powered manufacturing to renewable energy sources.
- Investing in enhanced flood defences.

Rationale

Management is targeting a reduction in energy costs alongside an improvement in energy efficiency while also reducing both climate transition risk and physical climate risk in the company's operations and contributing to long-term systemic risk reduction.

Relevant background

Energy efficiency and emissions intensity

- Royal has not made any significant upgrades to its industrial processes since shifting production to its gas-powered Italian facility in 1995. A recent energy efficiency audit identified an estimated energy efficiency of just 55%. Management favours an option to retrofit the facility's current gas-powered systems and connect them to available renewable sources.

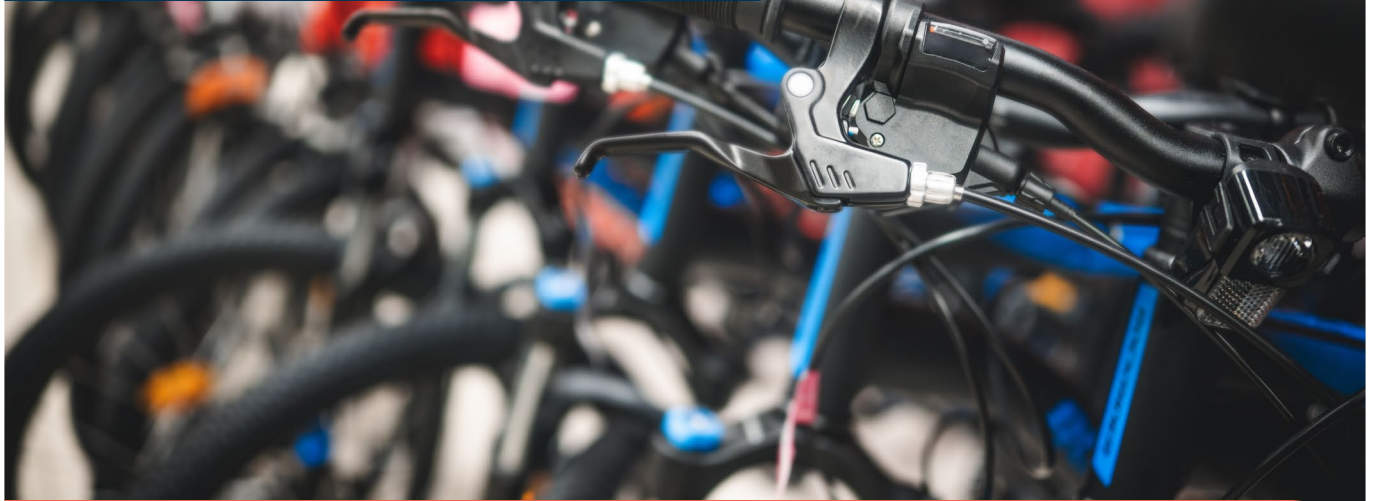
- This would increase energy efficiency. It would also reduce GHG emissions and lower Royal's short-to-medium term climate transition risks and contribute to long-term systemic risk reduction. The retrofit option would entail an upfront capital investment but reduce ongoing running and maintenance costs. Royal has been advised to investigate the potential availability of a government grant to support retrofit costs.

Resilience and insurability

- Royal incurred significant losses from asset damage and business interruption losses as a result of heavy flooding in Emilia-Romagna in 2023. Scientific sources suggest that climate change has increased both the likely frequency and intensity of such events. The IFOA pre-read on this topic outlines what attendees could expect in the future.

STRATEGIC PRIORITY TWO:

Reduce costs and build supply chain resilience



Options considered by management include:

- Reducing the geographical dispersion of suppliers.
- Building redundancy into the supply chain.
- Encouraging suppliers to build resilience.
- Improving data flow from suppliers, including early warning information.

Rationale

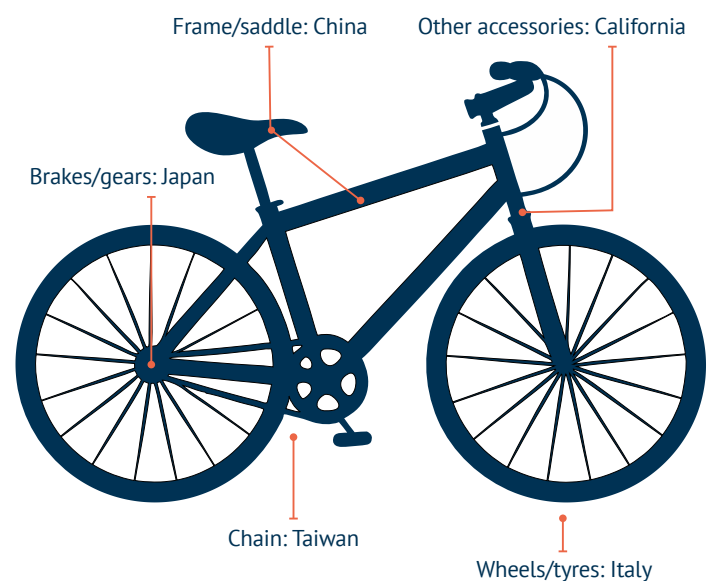
Management is targeting a reduction in the risks and costs associated with managing an extensive and complex supply chain that is exposed to extreme weather. Management is targeting a reduction in transportation and business-interruption costs.

Relevant background

Supply chain profile

- Manufactured at Royal's primary production facility in Italy, Royal's bikes are reliant on component parts sourced from a wide range of suppliers around the world including from China, California, Italy, Japan and Taiwan. There is currently a single supplier for each component and Royal operates with a just-in-time production model.
- This supply chain profile has contributed to logistical challenges, high and rising transportation costs and exposure to potential business interruption arising from increasing physical climate risk in several supplier geographies.

Supply chain. Current geographical dispersion of suppliers



The IFoA pre-read on this topic outlines physical risks that could impact the organisation's supply chains.

STRATEGIC PRIORITY THREE:

Pivot Royal's product catalogue for future growth



Options considered by management include:

- Expanding the range of electric bikes (e-bikes).

Rationale

Management is targeting a recalibration of its product catalogue, with the aim of meeting evolving customer demand while contributing to a reduction in both company-specific and systemic climate risks.

Relevant background

- **e-bikes.** Royal was initially slow to respond to the growth of e-bikes but now manufactures three models. In recent years, these have contributed an increasing share of revenues. Management has examined trends in this market segment and has concluded that there remains a strong structural uptrend globally: it is estimated that the global market for e-bikes could almost double – from around 40 million in 2023, to 77 million in 2030. Drivers of this trend include technological advancement, improving cycle infrastructure, lower costs, convenience, and policy support for reduced congestion and emissions reduction in the transport sector. Indeed, it is estimated that e-bikes emit less than 5 grams of CO₂ per mile, compared with around 275 grams for an ICE vehicle.

77m

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