

Principal risks

The Rolls-Royce risk management and internal control system

Effective risk management helps Rolls-Royce to identify anything that could hinder or support the effective implementation of its strategy and business model. In order to achieve this, we have an established risk management and internal controls system, with the Board overseeing its effectiveness.

As well as including procedures to monitor the nature and extent of the principal risks the Group is willing to take in order to optimise its commercial opportunities and achieve its long-term strategic objectives, it also covers the monitoring of emerging risks.

At least once a year, the Board, supported by the Audit Committee, assesses how effectively we manage principal risks and, where we are not, reviews plans in place to address these. In 2023, there was an additional internal review on risk maturity which was incorporated into the effectiveness review.

For key principal risks, particularly compliance and safety, we have mandatory training and policies in place, linked to performance management and remuneration, which all our people are required to complete and comply with.

The Audit Committee also reviews the Group's internal financial controls with financial reporting controls being subject to periodic review by the Group's internal controls team.

The Board confirms that it has monitored the effectiveness of risk management and internal controls throughout the year, in accordance with the 2018 UK Corporate Governance Code.

Risk management

Risks facing the business are identified and assessed on a regular basis.



Internal control

Internal controls are designed and deployed to mitigate these risks to an accepted level.



Assurance

Assurance activities assess whether the controls are effective and risks are mitigated to an acceptable level in practice.

How Rolls-Royce manages risk

We use a framework which aligns with international standards for managing risk. This sets out requirements across the organisation for all categories of risk, including climate, finance, legal and operations, as well as providing guidance and tools. Everyone at Rolls-Royce has a role to play in identifying and managing risks, but the Board (aided by its Committees) is ultimately accountable. An independent, central enterprise risk management team supports the divisions and functions in their effective management of risk.

Define

Risks are identified by individuals across all divisions and functions and at different layers of the organisation by considering what could stop us achieving our strategic, operational or compliance objectives or impact the sustainability of our business model.

Quantify

Risk owners assess the likelihood of a risk materialising and the impact if it does, taking into account current mitigating control activities.

Control and assure

Risk owners consider the effectiveness of current mitigating control activities, supported by different assurance providers.

Respond

Risk owners identify where additional activities may be needed to bring the risk within appetite. A judgement is made by assessing the Group's ability to reduce the impact of risks that do materialise and ensure the costs of operating particular controls are proportionate to the benefit provided.

Monitor, review and report

Risk owners report their assessment of the current risk status and action plans to divisions, functions and other review forums (including the Executive Team, Board and Board Committee meetings) as needed depending on the nature of the risk, for support, challenge and oversight.

Continuous improvement

We regularly benchmark the risk framework through active participation in industry groups and against best practice risk standards. Progress made in 2023 includes further embedding risk considerations in the investment committee decision-making process and five-year planning process.

We also made improvements to how we define, document and operate controls (e.g. for the safety and compliance principal risks). This is a key part of how we mitigate risk and keep within appetite, alongside assurance so we know the mitigation is effective. A risk and its mitigation is continually evaluated in response to external or internal factors changing the nature of the risk and how we manage it.

PRINCIPAL RISKS

Emerging risks

In a fast-changing world, it is getting harder to predict the future in time to make decisions and act early enough to deal with unexpected, disruptive events. Rolls-Royce has processes in place to identify emerging risks, including:

- divisional risk identification;
- regulatory and compliance horizon scanning, including requirements relating to climate change;
- geopolitical horizon scanning and risk identification;
- new technologies horizon scanning;
- analysis of external emerging risk information; and
- strategic risk identification.

Outputs are assessed to identify any potential new impacts on Rolls-Royce. Where we do identify items, these are captured by either recording a new risk or amending an existing risk and managing this in accordance with the framework described on page 50, or added to an emerging risk watch list to monitor and/or investigate further.

The Board consider an annual summary of emerging risks and management's response. In 2023, we concluded that known significant risk trends are deteriorating simultaneously; in particular the effects of climate change, geopolitical conflict and tensions, the pace of technological advancements, and global economic constraints and their knock-on effect on society. This evolution has been reflected in the revised approach to principal risk interdependencies, shown in the diagram below.

We added two risks to the emerging risk watch list this year arising from external geopolitical tensions: the possibility of national power outages and an attack on physical infrastructure. Technology risk has also now been split out from the previously reported competitive environment risk, expanding it into a separate opportunity risk driver.

Principal risks

The Board confirms that it has assessed and monitored the Group's principal risks throughout the year, in accordance with the 2018 UK Corporate Governance Code.

Changes to the principal risks profile in 2023

We continue to review our principal risks, their evolving nature and how well they are managed. In November 2023, the principal risk profile was refreshed to ensure it reflects where risks could impact the organisation in light of the strategic review. This resulted in a number of changes to our principal risks.

- Transformation has been replaced with a strategy risk, which incorporates the old transformation risk as well as elements of the previous competitive environment risk.
- Execution replaces elements of the previous competitive environment risk.
- Technology is now a separate principal risk, whereas previously it was captured under the competitive environment risk.
- Information & data risk includes the previous cyber risk but has been expanded to include physical as well as digital data.
- Business continuity risk is now called business interruption.

As part of this, we also looked at risk interdependencies, categorising principal risks as either a 'pillar' or a 'driver', with drivers being those risks that could cause one or more risk pillars to happen and/or make them worse if they do. The diagram below shows how the risks interconnect, with the crosses showing the interdependencies which will be a focus as part of our risk management and oversight in 2024.

Principal risks are owned by one or more members of the Executive Team and subject to a review at an Executive Team meeting at least once each year, before a review by the Board or a Board Committee. Risks are managed against risk appetite (i.e. how much risk we are prepared to accept or be exposed to) as a mechanism for making decisions for how risks are managed and the actions needed to mitigate them.

Principal risk interdependencies – pillars and drivers

Principal risk drivers	Principal risk pillars				
	Safety Product & people	Compliance With law & regulations	Strategy	Execution	Business interruption
Climate change			×		×
Information & data	×	×	×		×
Market shock Financial shock			×	×	×
Political			×		×
Talent & capability			×	×	
Technology			×	×	

Changes in overall risk levels

The overall risk profile has remained broadly stable. Where we have developed our strategy and associated short to medium-term plans, the related risks have reduced accordingly. Successfully managing these risks will help us to achieve our goal of being a high-performing, competitive, resilient and growing business.

The following tables detail the current principal risk pillars and drivers, together with how we manage them, how we assure them (in addition to internal audit), the oversight provided by the Board and/or its Committees and how the risk levels have changed over the course of the year.

PRINCIPAL RISKS – PILLARS

Change in risk level:  Increased  Static  Decreased

Safety

PRINCIPAL RISK DESCRIPTION

Product: Failure to provide safe products

People: Failure to create a place to work which minimises the risk of harm to our people, those who work with us, and the environment, would adversely affect our reputation and long-term sustainability

CONTROLS AND MITIGATING ACTIONS

Product:

- Our product safety management system includes controls designed to reduce our safety risks as far as is reasonably practicable and to meet or exceed relevant company, legal, regulatory and industry requirements
- We verify and approve product design
- We test adherence to quality standards during manufacturing
- We validate conformance to specification for our own products and those of our suppliers
- We mandate safety awareness training
- We use engine health monitoring to provide early warning of product issues
- We take out relevant and appropriate insurance

People:

- Our HSE management system includes activities and controls designed to reduce our safety risks as far as is reasonably practicable and to meet or exceed relevant company, legal, regulatory and industry requirements
- We reinforce our journey to zero harm
- We use our crisis management framework

ASSURANCE ACTIVITIES AND PROVIDERS	OVERSIGHT FORUM(S)	BUSINESS MODEL
Product <ul style="list-style-type: none"> – Product safety assurance team – Product safety board – Technical product lifecycle audits People <ul style="list-style-type: none"> – Safety case interventions – HSE audit team 	<ul style="list-style-type: none"> – Safety, Energy Transition & Tech Committee 	<ul style="list-style-type: none"> – Our role in society – Our business model drivers – Our uniqueness
WHAT HAS CHANGED IN 2023?		
<p>No overall change in risk status.</p> <p>As part of transformation, we are bringing together engineering technology and safety into one organisation, ET&S, with product safety at its heart.</p>		

PRINCIPAL RISKS

PRINCIPAL RISKS – PILLARS CONTINUED

Change in risk level:  Increased  Static  Decreased**Compliance** 

PRINCIPAL RISK DESCRIPTION		CONTROLS AND MITIGATING ACTIONS	
Non-compliance by the Group with legislation or other regulatory requirements in the heavily regulated environment in which we operate (e.g. export controls; data privacy; use of controlled chemicals and substances; anti-bribery and corruption; human rights; and tax and customs legislation). This could affect our ability to conduct business in certain jurisdictions and would potentially expose us to: reputational damage; financial penalties; debarment from government contracts for a period of time; and suspension of export privileges (including export credit financing), each of which could have a material adverse effect.		<ul style="list-style-type: none">– We continuously develop and communicate a comprehensive suite of mandatory policies and processes and controls throughout the Group– We undertake third-party due diligence– We encourage, facilitate and investigate speak up cases– We investigate potential regulatory matters– Our financial control framework activities are designed to reduce financial reporting and fraud risks– We classify data to meet internal and external requirements and standards	
ASSURANCE ACTIVITIES AND PROVIDERS	OVERSIGHT FORUM(S)	BUSINESS MODEL	
<ul style="list-style-type: none">– Compliance teams– Financial controls team	<ul style="list-style-type: none">– Board– Nominations, Culture & Governance Committee– Audit Committee	<ul style="list-style-type: none">– Our business model drivers	
WHAT HAS CHANGED IN 2023?			
No overall change in risk status.			

Strategy 

PRINCIPAL RISK DESCRIPTION		CONTROLS AND MITIGATING ACTIONS	
Failure to develop an optimal strategy and continuously evolve it, investing in key areas for performance improvement and growth (taking into account risk reward), making difficult decisions for competitive advantage and the right portfolio and partnership choices, could result in us underperforming against our competitors and significantly reduce our ability to build a high-performing, competitive, resilient and growing company.		<ul style="list-style-type: none">– We run a rigorous strategic review process– We benchmark our capabilities and performance against our competitors, the market and other external metrics– We align our R&D spend to our strategy, with a smaller, more focused portfolio– We make investment choices to improve the quality, delivery and durability of our existing products and services– We scan the horizon for competitive threats and opportunities, including patent searches– We invest in R&D opportunities to support the development of new products or services to protect and sustain our future market	
ASSURANCE ACTIVITIES AND PROVIDERS	OVERSIGHT FORUM(S)	BUSINESS MODEL	
<ul style="list-style-type: none">– Group strategy team– Challenge from external advisers	<ul style="list-style-type: none">– Board	<ul style="list-style-type: none">– Our business model drivers	
WHAT HAS CHANGED IN 2023?			
This risk replaces transformation as well as part of the previous competitive environment risk and covers the development of the Group's strategy. It has reduced following completion of our strategic review which included a robust assessment of the competitive environment, agreement on priorities and changing how the organisation operates to enable execution.			

PRINCIPAL RISKS – PILLARS CONTINUED

Change in risk level:  Increased  Static  Decreased**Execution** 

PRINCIPAL RISK DESCRIPTION

Failure to deliver as One Rolls-Royce on short to medium-term financial plans, including efficient and effective delivery of quality products, services and programmes, or falling significantly short of customer expectations, would reduce our resilience and have potentially significant adverse financial and reputational consequences, including the risk of impairment of the carrying value of the Group's intangible assets and the impact of potential litigation.

CONTROLS AND MITIGATING ACTIONS

- We robustly performance manage our operational execution and monitor performance against plans
- We keep control of costs with rigorous budgeting
- We review product lifecycles
- We protect our intellectual property (e.g. through patents)
- We include inflation clauses in our contracts to manage cost increases
- We work closely with our suppliers, driving tighter management of lead times

ASSURANCE ACTIVITIES AND PROVIDERS

- Executive Team monitoring of execution

OVERSIGHT FORUM(S)

- Board
- Investment committee

BUSINESS MODEL

- Our business model drivers

WHAT HAS CHANGED IN 2023?

This risk replaces part of the previous competitive environment risks and covers delivery of strategic initiatives, including existing product delivery and improving performance, together with the associated financial plans.

Although progress has been made (as we have articulated how we plan to monitor strategy execution from 2024 and introduced more robust monitoring of in-flight projects and programmes) we have held the risk level unchanged as we have yet to commence execution and monitoring.

We are in the process of identifying and describing any new and changed risks arising from strategy development and execution, in addition to introducing new mitigations including zero-based budgeting.

Business interruption 

PRINCIPAL RISK DESCRIPTION

A major disruption of our operations and ability to deliver our products, services and programmes could have an adverse impact on our people, internal facilities or external supply chain which could result in failure to meet agreed customer commitments and damage our prospects of winning future orders.

Disruption could be caused by a range of events such as extreme weather or natural hazards (e.g. earthquakes or floods) which could increase in severity or frequency given the impact of climate change; political events; financial insolvency of a critical supplier; scarcity of materials; loss of data; fire; or infectious disease.

CONTROLS AND MITIGATING ACTIONS

- We invest in capacity, equipment and facilities, dual sources of supply and in researching alternative materials
- We provide supplier finance in partnership with banks to enable our suppliers to access funds at low interest rates
- We hold buffer stock
- We plan and practice IT disaster recovery, business continuity and crisis management exercises
- We undertake supplier due diligence
- We take out relevant and appropriate insurance

ASSURANCE ACTIVITIES AND PROVIDERS

- Investment reviews
- Supplier strategy and sourcing reviews
- Group security and resilience team

OVERSIGHT FORUM(S)

- Audit Committee

BUSINESS MODEL

- Our business model drivers

WHAT HAS CHANGED IN 2023?

This risk replaces business continuity and remains high due to the external threat landscape, such as geopolitical instability disrupting supply or demand.

PRINCIPAL RISKS

PRINCIPAL RISKS – DRIVERS

Change in risk level:  Increased  Static  Decreased**Climate change** 

PRINCIPAL RISK DESCRIPTION

Failure to become a net zero company by 2050, leveraging technology to transition from carbon intensive products and services at pace could impact our ability to win future business; achieve operating results; attract and retain talent; secure access to funding; realise future growth opportunities; or force government intervention to limit emissions.

In addition, physical risks from extreme weather events (and/or natural hazards) could potentially materialise, which may result in disruption.

CONTROLS AND MITIGATING ACTIONS

- We invest in reducing carbon impact of existing products and zero carbon technologies to replace our existing products
- Performance of climate scenario modelling and physical risk impact assessments
- We balance our portfolio of products, customers and revenue streams to reduce our dependence on any one product, customer or carbon emitting fuel source
- Communication of the actions we are taking to manage this risk, in order to demonstrate our alignment to societal expectations and global climate goals

ASSURANCE ACTIVITIES AND PROVIDERS	OVERSIGHT FORUM(S)	BUSINESS MODEL
<ul style="list-style-type: none"> – Strategy reviews – Technology reviews – Investment reviews – Group sustainability team – Climate steering committee 	<ul style="list-style-type: none"> – Board and its Committees – Executive Team and its committees 	<ul style="list-style-type: none"> – Our role in society – Our business model drivers – Our uniqueness
WHAT HAS CHANGED IN 2023?		
<p>This risk currently remains unchanged. Our intention is to complete a comprehensive review of our sustainability, energy transition and climate related strategy, including redefining group level targets in 2024.</p>		

Information & data 

PRINCIPAL RISK DESCRIPTION

Failure to protect the integrity and availability of data, both physical and digital, from attempts to cause us harm, such as through a cyber attack. Potential impacts include hindering data driven decision making, disrupting internal business operations and services for customers, or a data breach, all of which could damage our reputation, reduce resilience, and cause financial loss.

Causes include ransomware threats, unauthorised access to property or systems for the extraction, corruption, destruction of data, or availability of access to critical data and intellectual property.

CONTROLS AND MITIGATING ACTIONS

- We deploy web gateways, filtering, firewalls, intrusion, advanced persistent threat detectors and integrated reporting
- We test software
- Application of our crisis management framework to govern our response to potential cyber security incidents and significant IT disruption
- We restrict access to our systems and locations

ASSURANCE ACTIVITIES AND PROVIDERS	OVERSIGHT FORUM(S)	BUSINESS MODEL
<ul style="list-style-type: none"> – Group cyber security team and security operations centre 	<ul style="list-style-type: none"> – Audit Committee 	<ul style="list-style-type: none"> – Our business model drivers – Our uniqueness
WHAT HAS CHANGED IN 2023?		
<p>This risk replaces the previous cyber threat risk and now includes physical data as well as digital. The risk remains high due to factors including the ongoing evolution of data security threats as well as increasing demands for additional data (e.g. to meet compliance requirements).</p>		

PRINCIPAL RISKS – DRIVERS CONTINUED

Change in risk level:  Increased  Static  Decreased**Market & financial shock** 

PRINCIPAL RISK DESCRIPTION

The Group is exposed to market and financial risks, some of which are of a macro-economic nature (e.g. economic growth rates, foreign currency, oil price and interest rates) and some of which are more specific to us (e.g. reduction in air travel or defence spending, disruption to other customer operations, liquidity and credit risks).

Significant extraneous market events could also materially damage our competitiveness and/or creditworthiness and our ability to access funding. This would affect operational results or the outcomes of financial transactions.

Demand for our products and services could be adversely affected by factors such as current and predicted air traffic, fuel prices and age/replacement rates of customer fleets. A large proportion of our business is reliant on the civil aviation industry, which is cyclical in nature.

CONTROLS AND MITIGATING ACTIONS

- We monitor trends, market demand and future market forecasts and make investment choices to maximise the related opportunities
- We incorporate trends, demand and other dependencies in our financial forecasts
- We balance our portfolio with the sale of OE and aftermarket services, providing a broad product range and addressing diverse markets that have differing business cycles
- We execute our short, medium and long-term plans
- Our financial control framework activities are designed to reduce financial reporting risks
- We analyse currency and credit exposures and include in-sourcing and funding decisions
- We develop, review and communicate treasury policies that are designed to hedge residual risks using financial derivatives (covering foreign exchange, interest rates and commodity price risk)
- We raise finance through debt and equity programmes
- We hedge with reference to volatility in external financial markets

ASSURANCE ACTIVITIES AND PROVIDERS

- Five-year and strategic planning process
- Strategy reviews
- Technology reviews

OVERSIGHT FORUM(S)

- Board
- Audit Committee

BUSINESS MODEL

- Our business model drivers

WHAT HAS CHANGED IN 2023?

Overall, this risk has remained the same. The external environment is increasingly uncertain, with ongoing inflation and high interest, the possibility of a recession in the short term across one of more countries and market volatility following elections (see political risk above). However, improvements made across the Group and strategic plans in place means that we are in a good position to manage this volatility.

Political 

PRINCIPAL RISK DESCRIPTION

Geopolitical factors leading to an unfavourable business climate and significant tensions between major trading parties or blocs could impact our strategy, execution, resilience, safety and compliance. Examples include changes in key political relationships explicit trade protectionism, differing tax or regulatory regimes, potential for conflict or broader political issues and heightened political tensions.

CONTROLS AND MITIGATING ACTIONS

- We develop Group and country strategies and consider associated dependencies
- We horizon scan for political implications and dependencies
- We include diversification considerations in our investment and procurement choices

ASSURANCE ACTIVITIES AND PROVIDERS

- Strategy reviews
- Technology reviews
- Supplier sourcing teams
- Government relations teams

OVERSIGHT FORUM(S)

- Board

BUSINESS MODEL

- Our role in society
- Our business model drivers

WHAT HAS CHANGED IN 2023?

This risk has increased throughout the year, due to external factors including (but not limited to) the recent instability in the Middle East, plus upcoming elections that could increase geopolitical tensions, depending on the outcome.

PRINCIPAL RISKS

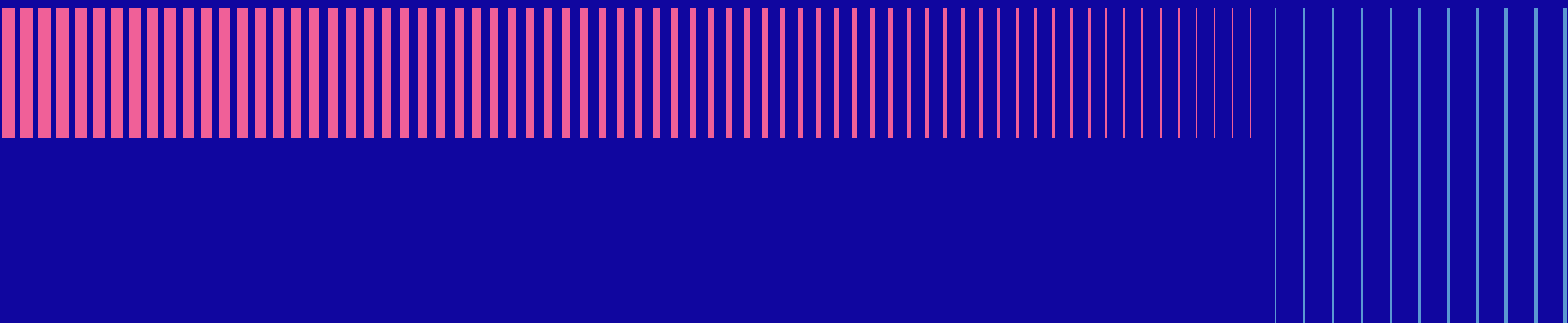
PRINCIPAL RISKS – DRIVERS CONTINUED

Change in risk level:  Increased  Static  Decreased**Talent & capability** 

PRINCIPAL RISK DESCRIPTION		CONTROLS AND MITIGATING ACTIONS	
Failure to create a company where our people can build a successful career with better choices for development and personal growth will hinder our ability to identify, attract, retain and apply the critical capabilities and skills needed in appropriate numbers for the successful execution of our business strategy.		<ul style="list-style-type: none">– We have implemented a new performance management framework to manage and reward our staff– We undertake succession planning and monitor the talent pipeline– We survey employee opinion– We develop, implement and review strategic resourcing plans– We are investing in our learning culture and people’s development	
ASSURANCE ACTIVITIES AND PROVIDERS	OVERSIGHT FORUM(S)	BUSINESS MODEL	
<ul style="list-style-type: none">– People leadership team	<ul style="list-style-type: none">– Nominations, Culture & Governance Committee	<ul style="list-style-type: none">– Our business model drivers– Our uniqueness	
WHAT HAS CHANGED IN 2023?			
<p>This risk was high in 2022 due to the ongoing impacts of the pandemic and has remained high this year due to our current transformation programme. There have been some year-on-year improvements in agreed key measures and improvement plans in place for others. As part of our new strategy, we are investing in our learning and skills culture, challenging the way leaders lead whilst managing and rewarding performance and dealing with poor performance.</p> <p>People related metrics, including on retention and learning and development, can be found in the Annual Report.</p>			

Technology 


PRINCIPAL RISK DESCRIPTION		CONTROLS AND MITIGATING ACTIONS	
Failure to become a digitally enabled business using tools including AI could hinder our ability to enhance the customer experience, drive the transition to lower carbon, accelerate product design, improve manufacturing and empower our people with new tools to improve productivity, as well as preventing us from creating new growth opportunities.		<ul style="list-style-type: none">– Investment in R&D opportunities– We scan the horizon for emerging technology threats and opportunities	
ASSURANCE ACTIVITIES AND PROVIDERS	OVERSIGHT FORUM(S)	BUSINESS MODEL	
<ul style="list-style-type: none">– Disruptive technology horizon scanning process– Strategy reviews– Investment reviews– Technology reviews	<ul style="list-style-type: none">– Safety, Energy Transition & Tech Committee	<ul style="list-style-type: none">– Our role in society– Our business model drivers– Our uniqueness	
WHAT HAS CHANGED IN 2023?			
Disruptive technology, as a threat (previously part of the competitive environment risk), was one of the primary considerations in setting strategy and is now a key element of the strategic initiatives. This has been reframed following both the strategy reviews and outputs of the horizon scanning exercise. We will continue to develop and evaluate this newly expanded risk.			



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