

# Smart Engineering Design Tech Innovation Challenge



## Introduction

Smart loves problems. Problems inspire. To mend things. To bend things. To make things better. IBM has a history of collaborating with companies, both large and small, to bring engineering capabilities, innovations and knowledge to support their digital transformation journey aligned to their own business and technology goals.

In this transformation journey, exciting and high growth technology start-ups play a crucial role in driving fresh, original thinking and disruptive solutions.

That's why Rolls-Royce and IBM are seeking the perfect IT service provider to optimise Rolls-Royce Defence's design process and invite you to participate in the Smart Engineering Design - Tech Innovation Challenge.



## The Challenge

Rolls-Royce Defence wishes to use existing data and live feeds of factory data to guide the design of new components. We want a system that allows our design Engineers to quantify the impact of their designs on the manufacturing process in order to improve our manufacturing right first time delivery. This will help to reduce the design iteration time for a new component and reduce the manufacturing cost of producing a part.



## The Opportunity

The solution, if successful in delivering value, will be scaled across multiple global teams and may be rolled out across Rolls-Royce beyond the Defence business. The initial Proof of Concept deployment will be a paid PoC but will almost certainly be deployed for testing and productisation within the Rolls-Royce IT estate, hence any solutions need to be deployable on-premise.



## The Solution

The Solution, to be delivered during the paid-for PoC, should seek to include one or more of the following technology and technology applications:

- The extraction of insight from manufacturing capability data
- The ability to discern which insights have an impact on right-first-time manufacture
- Features that are complementary to the existing design software (Siemens NX)
- The ability to take design boundary conditions and combine them with manufacturing insights to create an initial first design for a component
- Cloud: Access to data and applications is critical for productivity and profitability
- Data & AI: Unlock the value of data and inject intelligence into applications to anticipate manufacturing requirements.



## Technology and application areas of interest

- Immersive & Workforce Productivity
- Manufacturing automation
- Bot and conversational AI platforms
- Digital Twin
- Industry 4.0
- Big Data Analytics
- Digital knowledge banks
- Real-time design engineering
- Knowledge management
- AI/ML
- Data management and transfer



## How to Apply

Visit [hub.white.space](https://hub.white.space) and find the Immersive Technology Investment Accelerator on the programs page - You will then be able to apply to this (and any other Corporate challenges).

The challenge will be open to applications from **9AM (GMT) December 5th** and will close on **January 31st at 11:59PM (GMT)**



## Challenge Dates

5th December - Launch Date

14th February - Final Selections

31st January - Application Deadline

24th February - Pitch Presentation

7th February - Down Selection Stage



## Entry Criteria

- All applicants must be compliant with Rolls-Royce's Global Supplier Code of Conduct (and pass the relevant Anti-Bribery and Corruption (ABC) checks)
- The solution will need to operate within the Rolls-Royce IT estate, and therefore be deployable on-premise, for the duration of the PoC
- The solution must be at least an early-stage prototype and meet Technology Readiness Level 4 requirements
- Applicants solutions must not include export controlled technology. It is the individual company's responsibility to understand the export control regulations around their solutions and those will be governed by both the country of origin and the country they're exporting to
- Applicants may consider using the wide range of IBM software and services that could be used to enhance capabilities.



## Why IBM? Good Tech + Great Thinkers solves problems

Having everything you need to react to the challenges you face will make the difference between gaining an advantage on your competitors and being left behind.

So whether you're taking part in this Tech Challenge, or you have a next-generation solution in mind that you're eager to develop and launch, an ecosystem of IBM resources provides support and expertise no matter where you are on your journey.

**Think and Design:** Defining the product or concept you want to take to market

**Explore Technology:** Leverage technology and expertise to kickstart your development

**Business Plan:** Outline a vision to develop, manage and grow your business

**Sell:** Develop market-ready assets and explore go-to-market resources

**Grow:** Promote your solution to prospects and grow solution advocacy

What's more, as you'll undoubtedly need access to IBM APIS from AI to Cloud Paks, development tools and code patterns, or just a cloud platform to create your prototype, when you register you can **claim \$12,000 worth of Cloud Credits** on any of 152 managed services and software solutions available in the **IBM Cloud Catalog**.



## About Rolls-Royce

Rolls-Royce pioneers cutting-edge technologies that deliver clean, safe and competitive solutions to meet our planet's vital power needs. We identify and engage with best-in-class external partners to accelerate Rolls-Royce's future digital technology capabilities, to disrupt, to co-create value; to enable and rapidly execute the delivery of the Rolls-Royce Group strategy.