



## Research Manager – Job Description

(Job Code and Level: ERES005)

### **Definition:**

Research is defined as: Blue sky thinking and research into new technology (10 years before development phase). Systems and methodologies that will improve the vehicle either for the customer and meet future legislation, recognising as well future needs and developments in other areas. For example, integration of new technology which has been developed outside of the automotive industry such as I-Phone technology or looking into future hybridisation strategies, lowering emissions, etc.

### **Overall Purpose of the Role:**

Develop and provide strategic direction for research into the latest technologies, processes, devices, materials and techniques and find innovative ways of developing products for customers to continue sustainable company growth. Have the technical expertise to manage a team to be able to apply engineering knowledge and principles to devise innovative solutions to unique problems. Responsible for the operation of the department in achieving business targets, setting out best practice and establishing standard policies and procedures. Provide leadership, mentoring and management to the team, coordinating and overseeing their workloads, providing support to ensure that the team delivers, monitoring any issues, and ensuring timescales, KPIs and deadlines are met in order to meet the requirements of the customer. Develop the team by focusing on individual performance and support requirements to achieve high standards. Act independently at the organisational level. Outcomes reviewed by organisational head. Decisions and results have a prolonged impact on the current and future direction of the function/ projects and their success. Performance affects the function's image.

### **Key Responsibilities:**

#### **Strategy and Development**

- Create and implement best practice research vision, strategy, policies, processes and procedures to aid and improve operational performance

#### **General and Task Management**

- Oversee all projects simultaneously, tracking and guiding to complete on time and within budget
- Responsible for all projects, from initial identification, investigation and concept development through to delivering cost effective useable solutions to develop producible products for the future
- Ensure research into new and existing processes, devices, technologies, materials and techniques
- Develop ideas for further investigation
- Review the research that others have done and what outcomes they have achieved to inform decision making process to decide direction to take
- Review experiments designed to test ideas and prove out
- Analyse data provided from tests and experiments and progress learning to gather knowledge and understanding of the subject of research. Use to inform decision making process to decide direction to take
- Review results and continue to develop to the point of delivery required to progress into mainstream engineering
- Compare and contrast different approaches, methodologies, materials to develop the best outcome
- Work with the wider engineering community to develop and maintain good relationships with internal and external contacts at all levels including other companies, universities and research institutes
- Assess and collect technical information
- Review competitors solutions, investigating the research activity of other manufacturing companies, research institutes and universities to inform work being carried out
- Understand markets, trends and market analysis to appropriately decide what research needs to be developed
- Assess technical risks and mitigation plan
- Lead innovation and development through strong technical market awareness
- Keep abreast of all industry standards, regulations and potential changes
- Ensure continued compliance and suitable documentation processes
- Lead patent and license negotiation
- Articulate innovation and research and development processes
- Define and improve test processes to feed into the innovation process
- Ensure the highest levels of compliance and technical documentation in line with industry protocols
- Attend various meetings and action/communicate instructions
- Produce written reports and make presentations
- Undertake continuous training and development
- Perform root cause analysis and resolve problems
- Identify and deploy the technical skill sets, resource levels and systems to deliver projects, including the engagement of external resources as required
- Monitor the completion of tasks and ensure good performance and record on appropriate systems
- Develop, implement and manage key performance indicators (KPIs) for each area of responsibility

- Ensure KPIs are met by working to the overall plan, including management of, and reporting
- Identify business improvement opportunities within the organisation
- Implement and manage continuous improvement principals by highlighting deficiencies and implementing changes in training, working practices and processes
- Conduct risk assessments of processes and tasks in the department
- Ensure that the function operates in accordance with any health, safety and environmental policies and procedures to ensure the safety and wellbeing of staff and visitors

### **People Management**

- Manage, coach and develop a high performing research team that meets agreed objectives and which delivers best practice results, added value and continuous improvements
- Set department objectives/KPIs and review and assess ongoing performance of direct reports
- Report on achievement of targets and identify any actions required
- Mentor and lead the technical teams ensuring highest possible performance levels, driving innovation and a collaborative team ethos
- Ensure the delivery of the People Strategy within area of accountability
- Manage and lead the team, ensuring adequate staffing levels, managing holiday allowances, recruitment, training, development, appraisal, attendance, disciplinary issues and daily supervision to maximise efficient productivity
- Motivate and coach the team to operational success
- Consistently promote high standards through personal example and roll out through the team so that each member of the team understands the standards and behaviours expected of them
- Communicate KPIs from the strategic annual plan so that each employee is aware
- Manage contractors on site to ensure they meet legal and company requirements

### **Financial Budget and Control**

- Hold responsibility for departmental budget
- Responsible for achieving budget and forecast

### **Relationship Management**

- Develop and maintain strong relationships with internal and external stakeholders to ensure optimal performance
- Work collaboratively, negotiate and engage with key stakeholders to facilitate delivery and compliance with the engineering strategy
- Work as part of the Management team to share ideas and improve operation, recommending, supporting and implementing continuous improvement activities and process and procedure improvements to optimise results and improve quality of delivery, in line with quality standards requirements delivery in line with Company and Customer requirements

- Communicate with stakeholders the impact of market change and potential effects on engineering design and development. Recommend solutions without compromising quality or service while optimising cost
- Stay current and up to date on any technology changes that may affect engineering design and development and advise others of any impact
- Contribute to new business initiatives and projects and review and communicate the impact on engineering activities
- Represent the company on industry bodies
- Develop and maintain strong relationships with clients, industry bodies, investors and stakeholders
- Ensure an effective interface with other departmental staff is maintained
- Liaise and communicate with other departments, customers, suppliers and other service providers

### **Self Management**

- Comply with the Health, Safety and Environmental Policies
- Support encourages and develop team
- Proactively contribute to creating a good team atmosphere
- Anticipates and overcomes obstacles
- Makes useful links to arrive at insightful plans and solutions
- Embraces personal challenge
- Confident, rounded thinking
- Takes ownership for team cohesion
- Is self aware
- Is resilient, influential, optimistic and open to change
- Has an Adult:Adult, collaborative approach to others

### **Skills and Attributes:**

- Self-supervising within the expectations of Senior Management with outcomes reviewed at Senior level
- Advance engineering principles, theories and concepts
- Broad experience of working in an automotive environment
- Act independently at the top of the organisational level. Outcomes reviewed by organisational head
- Highly skilled communicator with the ability to form and maintain good relationships internally and externally
- Strong interpersonal, negotiation and influencing skills
- Proven management skills with the ability to optimise team performance and development
- Commercial and financial acumen
- Highly developed analytical skills
- Strong technical mindset and able to read and interpret technical data and translate to others
- Highly numerate with the ability to research, assemble, manage and manipulate numerical information
- Advanced knowledge of estimating strategies and techniques

- Results orientated and organised with the ability to plan and deliver against deadlines
- Excellent attention to detail skills
- Project Management skills

### **Qualifications and Experience Levels:**

- Relevant manufacturing/engineering degree is preferred, or HND, BTec Professional Level 5 Award or equivalent NVQ Level 5 qualifications.
- Membership preferably Chartered Status of an Industry related Professional Body
- Able to demonstrate experience of working with relevant products
- Strong working knowledge of 2D and 3D CAD
- In depth knowledge and experience of DFMEA, FMEA, APQP, PPAP, and Six Sigma
- Experience of New Product Introduction, reworking design changes and upgrades through to production
- Experience of managing a team
- Experience of testing and prototyping
- Distinguished record of creativity and innovation

### **Example roles this job description may cover:**

- Prototype Engineering Manager