

Head of Systems – Power & Electrical

Employer: East West Railway Company

Location: Milton Keynes

Basis: Interim

Role Summary: Accountable for leading the engineering activity for all assets and disciplines within a System, setting the System and associated Discipline Technical Strategies and Standards. Driving the overall integrated performance and optimised whole life cost of the Systems through appropriate risk-based assurance. Providing expert technical advice to inform EWR and influence the industry, actively driving engineering innovation to achieve EWR objectives. Functionally leading all Discipline Engineers working in EWR. The specific scope of each System is described in more detail in Appendix 1.

Team dimensions: Reporting directly to the Engineering Director

A little bit about us:

East West Rail is a new direct connection, linking communities between Oxford and Cambridge, including Bicester, Milton Keynes and Bedford by rail.

Oxford, Cambridge and the communities in between are renowned for their vibrant economy, educational excellence and scientific innovation. They deliver growth and prosperity both locally and for the whole country; connecting these two cities and the communities in between is crucial to the social and economic future of the region.

East West Railway Company was set up to accelerate the delivery of the East West Rail infrastructure and passenger services, bringing faster journey times and easing pressure on local roads.

We were set up by the Secretary of State for Transport in 2017 to do things differently. We aim to innovate, positively disrupt, and challenge the status-quo, leading to quicker and more cost-effective project delivery, and an improved experience for passengers and the communities we serve.

As we build our team, we're looking for people with the right skills and mindset so that we can innovate, positively disrupt and set new industry standards. Whether you've been working on some of the world's most exciting rail and infrastructure projects or can inspire us with your ideas and expertise from other sectors, we want to hear from you.

Responsibilities and accountabilities

- Inform the EWR strategy and output requirements with expert technical advice & industry leading practice.
- Derive the Integrated Programme technical requirements to achieve the EWR strategy.
- Set the EWR Technical Strategy for all System assets and disciplines, including standards and design principles to optimally achieve the EWR strategy and requirements.
- Assure technical compliance through appropriate risk-based assurance (V&V and technical approvals), audit and surveillance.
- Provide support and "constructive tension" to Programme Engineering (Delivery) and support the sponsor in challenging requirements and standards to enhance whole life performance.
- Lead Engineering safety management of Engineering people and assets, managing technical interfaces and assuring integrated system safety and performance (at a System & Railway level) across the delivery partner design authorities, including manage Engineering change to maintenance and configuration of operational assets.
- Manage the engineering regulatory interface for the System: supporting consents, approvals, safety case and entry into service.
- Establish and maintain the core Engineering processes and methods to enable delivery including the technical and system models required.
- Actively manage and mitigate EWR System level technical risks, whilst assuring that technical risk is appropriately managed within delivery partners.
- Establish and maintain technical competence accreditation systems, ensuring all discipline engineers working in EWR are appropriately assessed and accredited to undertake engineering activities (including technical interviewing during recruitment).
- Lead and support Capital Delivery in implementing the Engineering strategy, processes and tools.
- Actively manage and accelerate engineering innovation to meet EWR challenges, influencing the industry and informing EWR on technical opportunities and risk.
- Plan the System technical capability (skills and experience with demand levels) required to deliver the EWR programme throughout the whole lifecycle of the railway. Develop and maintain the make or buy sourcing strategies for System technical capability with commercial functions.
- Set specific System engineering objectives, managing engineering priorities and work bank across the Engineering teams to ensure effective delivery.
- Implement effective KPI & Metrics, visualisation and reporting for the Engineering team performance, promoting a high-performance culture.
- Support Programme Engineering Managers in managing senior external technical delivery partners and industry stakeholder relationships for the System, ensuring requirements are agreed and any approvals gained.
- Support the EWR External Relations team with any technical engagement with local authorities, other key local stakeholders, other government departments, NR and other operators.

Team dimensions

- Reporting directly to the Engineering Director, a member of the Engineering Management Team, working closely with other Heads of Systems and the Engineering Delivery Manager.
- Working closely with Strategy & Operational Directors to support development of strategy, requirements and business case
- Working closely with Delivery Directors and Programme Engineering Managers to implement the engineering strategy, policies, plans and core processes with Delivery Programmes.
- Managing the budget for the System engineering resources (staff and consultancy), employed directly by Engineering. Ensuring effective line management of all Discipline engineers reporting to the System (through Discipline Heads).
- Ensuring effective functional leadership all the System's Discipline Engineers in EWR (through Discipline Heads), creating a professional community that provides peer support, promotes best practice and innovation. Ensuring effective management of professional performance and development of the System's Discipline Engineers embedded within Delivery Programmes.
- Given the early stage of the project, it is likely that the nature of the role may evolve as the project progresses. It is also possible that other ad-hoc activities and duties may be required

Experience and skills

As a EWR Head of System, you will have extensive experience in leading multi-disciplinary Engineering teams in a regulated safety critical environment, deep technical expertise in at least one of the System Disciplines and a good working knowledge of the others and the integrated Railway System.

Your skills will include:

- Delivery and assurance of engineering solutions within large scale and technically complex projects.
- Analysis of complex data, drawing effective conclusions and rapidly producing solutions and decisions.
- Excellent communication with the ability to promote and execute Technical Strategy.
- Influencing skills, including negotiating and facilitating joint decision making with colleagues and stakeholders.
- Building and leading high-performance teams.
- System Engineering and Asset Management tools and techniques.
- Innovation and change management, including best practice continuous improvement methodologies.
- Engineering Safety Management and best practice technical risk control methodologies.

Your experience will include:

- Broad experience of leading Engineering in a complex, safety focussed and regulated organisation with multiple complex interfaces.
- Personal responsibility for successfully leading engineering disciplines.
- People leadership of large multi-disciplinary engineering teams.
- Experience of working within relevant UK rail industry legislation and standards.

Join the team!

Please send your resume and a covering letter explaining why you are interested in the role and meet the above experience requirements to: recruitment@eastwestrail.co.uk

Appendix 1 – Scope of Systems

Railway System & Architecture

Leading the Systems Engineering & Assurance, Asset Management & Maintenance disciplines, this function sets the overall railway technical strategy, as well as developing and implanting the top level Engineering Strategy, Engineering Safety Management System and Engineering Integrated Management Systems that provide the core processes and methods (tools) required to deliver the EWR strategy and vision. Key responsibilities including assuring the overall integrated railway system performance and optimised whole life cost through working closely with Infrastructure & Transport System disciplines and Engineering Delivery, as well as developing and maintaining the required key EWR technical and system models.

Infrastructure Systems

Leading the Civil, Built Environment & Permanent Way, Geotechnical & Drainage and Station Systems disciplines, this function sets the Infrastructure System and associated Discipline Technical Strategies and Standards. Driving the overall integrated performance and optimised whole life cost of the Infrastructure Systems through appropriate risk-based assurance (V&V), audit and surveillance of Engineering Delivery activities. Providing expert technical advice to inform EWR and influence the industry, actively driving engineering innovation to achieve EWR objectives. Functionally leading all discipline engineers working in EWR, ensuring they are appropriately assessed and accredited as technically competent for their roles.

Transport Systems

Leading the Signals & Telecoms, Power & Electrification, Rolling Stock & Depots disciplines, this function sets the Transport System and associated Discipline Technical Strategies and Standards. Driving the overall integrated performance and optimised whole life cost of the Infrastructure Systems through appropriate risk-based assurance (V&V), audit and surveillance of Engineering Delivery activities. Providing expert technical advice to inform EWR and influence the industry, actively driving engineering innovation to achieve EWR objectives. Functionally leading all discipline engineers working in EWR, ensuring they are appropriately assessed and accredited as technically competent for their roles.