

Eileen Russell CEng MIMechE

"My job is exactly the same as it would be for a male engineer. I feel respected and supported as part of the engineering team.."

Education and qualifications: BEng and MEng Product Design Engineering

Which Institution are you a member of? Institution of Mechanical Engineers (IMechE)

Current job title: Head of Engineering and Maintenance

Company: Strathclyde Partnership for Transport (SPT) (Glasgow Subway Operations)

Length in current job: Three months

Approximately how many staff are employed by your company? 500

Please describe your current role

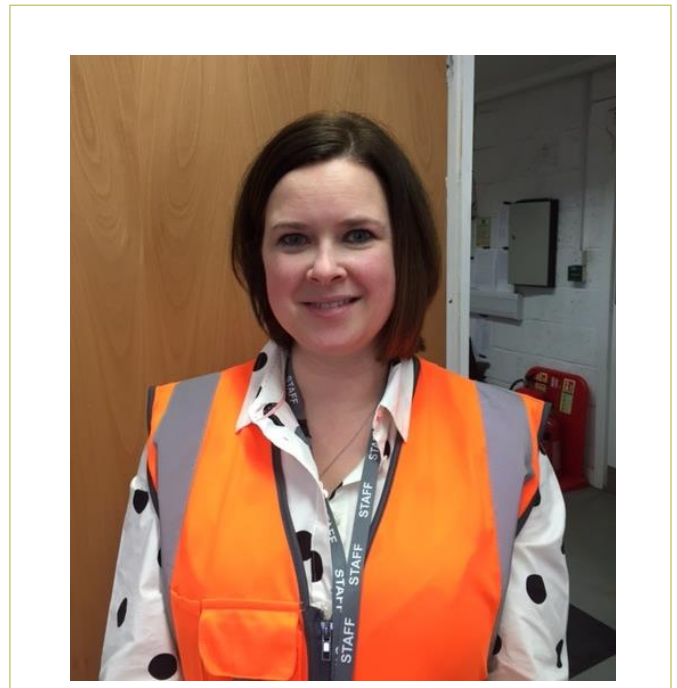
In my current role as Head of Engineering and Maintenance, I am responsible for a team of approximately 80 maintenance staff, engineers, engineering managers and support staff. The team maintains all the engineering assets of the Glasgow Subway system, including the fleet of trains, the electrical power system, signalling and control systems, tunnels and track. I'm responsible for the day-to-day provision of a safe, reliable and comfortable subway service for our passengers in Glasgow. I am also responsible for supporting the delivery of a £288 million investment programme to modernise the subway system by introducing a new fleet of automated trains and control system over the next five years.

Please provide a brief outline of your career so far

I started my career working for railway consultancy Interfleet Technology as a student on a summer placement before I graduated from the University of Strathclyde with a BEng and an MEng in Product Design Engineering. As a graduate, I joined Bombardier Transportation's graduate training programme where I began my *Monitored Professional Development Scheme* (MPDS) to work towards becoming a Chartered Engineer. During this training scheme I completed a wide range of technical, project and commercial placements. These included new rolling stock design projects; work on the assembly line for new train build and testing; placements in train maintenance depots for train operator companies; and bidding for new rolling stock design projects.

I then joined Frazer-Nash Consultancy and worked on a variety of projects in railway, nuclear power, renewable energy and defence industries, mainly for improvement of equipment reliability and safety assurance. After this, I worked for Abbot Risk Consulting where I managed a number of safety, reliability, maintenance and risk

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management projects. This included spending three months in Sydney, Australia, as the Safety Assurance Manager on the South Rail Link project. Thereafter I spent five years at ScotRail (Scotland's principle train operating company) as Head of Engineering. I was responsible for fleet safety and standards/compliance; quality and safety management systems; competence; training and development of all safety-critical maintenance staff; and the IT systems supporting maintenance activities across all ScotRail depots. This covered 292 trains, eight fleets, four train maintenance depots and over 500 maintenance staff.

Have you worked on any unusual or high profile projects?

I have had the privilege of a varied career and have worked on a wide range of interesting projects. For example the Astute submarine safety case, for which I was part of the Independent Safety Auditor (ISA) team. I have also worked as the Safety Assurance Manager for a new railway line (South Rail Link) in Sydney and am now working on the introduction of the first fully automated metro system in the UK, at Glasgow Subway.

Has being a female engineer had any impact on your career?

Not on a day-to-day basis. My job is exactly the same as it would be for a male engineer. I feel respected and supported as part of the engineering team and I've been lucky enough throughout my career to work for companies

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and managers who have given me excellent opportunities for personal development including training and coaching.

Are there many women where you work?

There are many women working in various roles at SPT Glasgow Subway, including in projects and operations, as well as HR, procurement and finance. I have a couple of female engineers in my team of 80 but we currently have no women working within the maintenance teams. As we introduce our new fleet of trains over the next few years I am keen to develop our team, particularly through Apprenticeship programmes and graduate development opportunities, and bring more women into careers at Glasgow Subway.

What spurred you to work towards becoming registered as a CEng?

Becoming a CEng was an opportunity to validate my skills and experience as a professional engineer and it has helped me to stand out against other candidates when being considered for job opportunities. Being a registered CEng has helped me to secure key roles such as Head of Engineering at ScotRail and at SPT Glasgow Subway. It is an industry recognised standard and helps you to gain immediate respect when working with industry bodies.

How did you become registered as a CEng?

I had a Masters degree in Engineering, so I followed the MPDS route with an experienced mentor who I met regularly to discuss my experience against technical and commercial competencies.

How has professional registration as a CEng benefitted your career?

Becoming a registered Chartered Engineer has enabled me to successfully apply for a number of jobs. Often for Head of Engineering and similar roles, where you are responsible for setting and maintaining standards and in a leadership position, CEng is a mandatory requirement. This requirement emphasises the seriousness of a role and the professional responsibilities associated with it.

What advice would you give someone considering professional registration as a CEng?

I would fully encourage them and recommend it. While finding the time to prepare your application can be difficult, it is definitely worth doing. It will open doors for your career.

What is your employer's attitude towards professional registration? Were they supportive while you were working towards professional registration as a CEng?

Every company I have worked for in my engineering career has encouraged the professional development of its engineers towards CEng. I have received employer support through training and development opportunities to cover any skill gaps and by the provision of mentors to help me through the registration process. I have also been supported financially with the payment of institution membership fees. Professional registration is an important development opportunity for engineers and companies often want to increase the number of Chartered Engineers within their workforce.

How does your company benefit from you being professionally registered?

My employer can have confidence in my expertise. Being a registered CEng reflects my competence and experience as a professional engineer and shows that I take an active interest in my own professional development and ongoing learning. I now mentor other graduate engineers who are working towards their CEng and generally support the development of my team.

What are your future goals?

I will continue to support and develop my team at Glasgow Subway and deliver improvements to service performance. I will also help with the safe introduction of an automated metro system for Glasgow Subway passengers from 2019.

From a professional perspective, I would like to become a Fellow of IMechE and continue being a mentor for engineers working towards their CEng applications. I also hope to continue being a positive role model for young women who are considering a career in engineering.

Eileen Russell CEng MIMechE

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