



The Worshipful Company of Engineers

(Incorporated by Royal Charter 2004)

The Senior Warden 2026 - 2027



Eur Ing Brian M Back
BEng(Hons) CEng FIET

Brian has been an active member of the company for almost 2 decades. He is also a Liveryman of the Worshipful Company of Water Conservators.

He started his engineering career as an apprentice power engineer at Hawker Siddeley involved in the design of HV transformers and switchgear. After gaining a 1st class honours degree and winning the Institute Prize (IEE) in 1987, he was introduced to the Deputy Prime Minister of the time, Norman Tebbit who said to him those immortal words "I'll expect you to be on your bike". He was right, as Brian had already been talent spotted to become one of the first recruits of the newly formed Teaching Company Scheme, setup by the government to give support to floundering technology companies. This was to open his eyes to the very different and challenging world of SMEs and go on to shape his entire future career, switching overnight from KV to μ V as he became a leading pioneer in the world of radio and satellite telemetry.

After being handed the keys of the door on day one, Brian found he was in a sink or swim situation, but after a few months surfaced taking over both the R&D and production, becoming instrumental in enabling the business to be sold as a going concern.

Infected with the SME bug, it was not long before Brian was off running his first venture, just married with his wife Belinda, a member of Livery of the Worshipful Company of Entrepreneurs, who ran then as she does to this day the finance and operations side of their various engineering businesses.

Within a decade they had chalked up some major prestigious wins within the David and Goliath world of engineering. Pioneering the predecessor to the Internet of Things, M2M (Machine to Machine) winning

contracts with British Telecom, Network Rail (Rail Temperature Safety System) and Smart Metering, automatic meter reading (AMR) projects for Paris, along with several other Cities across France, plus even for the holy city of Mecca in Saudi, just to name a few. This culminated in the sale of their first business to a FTSE 250 company in 2005.

After a period of legal constraint, which Brian refers to as his “wilderness years”, they started a new venture, almost as a hobby, to apply their knowledge to create “technology for good”, buying an old barn and converting it into a small eco efficient innovation centre called the Innovation Farm.

From this base they now run several operations, the principal one Radio Data Networks Limited was established to deliver smart technology to monitor and mitigate aquatic pollution and flooding.

Brian likes to be thought as an active and hands on engineer, our Past Master Eur Ing Penny Taylor JP calls him a born engineer. Irrespective of the name, he likes a challenge. Most recently he has spearheaded the development of smart camera systems that are capable of rapid deployment in remote locations such as railways, in particular for the recently nationalised Welsh rail network which operates under the name Transport of Wales, where geological and hydraulic challenges regularly cause flooding which can endanger both the safety of passengers and result in fines due to delays.

Other ventures include working as project partner on several Defra funded FCRIP programmes as the technology partner, to delivering real-time asset monitoring across water catchments with the objective of reducing flooding and pollution, plus optimising existing hydraulic assets such as NFMs, leaky dams, sluice gates and SuDS detention ponds.

During Brian’s engineering career, he has been named the inventor on a dozen patents of which 5 remain in force to this day, covering a wide range of engineering disciplines from, thermodynamics, railway signalling and static crossing points, through to a retrofit flow regulator designed to reduce the incidents of CSO spills and sewer flooding.

He is the longstanding vice chair and longest standing council member of the international trade body the Low Power Radio Association www.lpra.org representing the interests of its members in Washington DC with the FCC, the United Arab Emirates with the TRA, Europe with ETSI and back home with Ofcom.

Finally, what hasn’t been mentioned until this point is Brian’s battle against dyslexia which has plagued him from childhood and led him to donate his life story to both the [IET](#) and the [Engineering Council](#) as case studies to help inspire other budding engineers with similar cognitive constraints. During the past decade has also supported the IET as a judge on their innovation and sustainability awards.