



PHOTOGRAPHY: CHARLIE SURBEY

AS ALDERMAN PROFESSOR MICHAEL MAINELLI, CHARTERED FCSI(HON) STARTS HIS TERM AS SHERIFF OF THE CITY OF LONDON, HE REFLECTS ON HIS ACHIEVEMENTS AND THE CHALLENGES FACING FINANCIAL SERVICES. **EILA MADDEN** REPORTS

## The polymath

The appointment of Michael Mainelli as Sheriff of the City of London could not be better timed. As the UK government prepares to leave the European Union and venture forth on a world tour of trade negotiations, the City needs an ambassador like Michael – a multi-linguist with four passports and a natural talent for innovation at the intersection of technology and finance. This is the man who created the world’s first complete commercial digital map in 1983 at the age of 24. Google co-founders Sergey Brin and Larry Page had just turned ten and Google Maps was still a distant dream.

The financial services world best knows Michael as co-founder and director of Z/Yen, a City-based commercial think tank that he set up in partnership with Ian Harris in 1994 to “promote societal advance through better finance and technology”.

But that is just the day job. Among his many other roles, Michael has, for the past six years, been Alderman of Broad Street Ward for the City of London Corporation. In June 2019, he was elected Aldermanic Sheriff of the City of London – a position he took up on 27 September.

### City sheriff

For the year-long term, he and his wife Elisabeth will live in apartments at the Old Bailey and he will be one of two sheriffs who work closely with the Central Criminal Court to promote the rule of law and England’s court and legal services, defend the City of London and oversee its taxation. Michael and his fellow Sheriff, Chris Hayward CC, have chosen ‘Primacy of the rule of law’ as their theme for 2019–2020. Michael points out that defence and taxation are vestigial duties, describing the sheriffs’ core responsibility as one of using ‘soft power’ to promote their theme, hosting numerous events at the Old Bailey, dining with judges, making speeches and chairing discussions on a

range of topics from UK urban knife crime to the business of trust.

Michael is less familiar with the world of violent crime that the Old Bailey deals in, but he does know something of anti-money laundering (AML) and ‘know your customer’ (KYC) regulations. During his time as Aldermanic Sheriff, he is hoping to explore and perhaps tackle the blockages to a stronger and simpler AML and KYC system.

Beyond this, he will support the Lord Mayor’s events in London and some around the world – Lord Mayors spend about 100 days in over 25 countries – promoting the UK in all aspects (professional, business, legal, technical and financial) as an open, tolerant and connected place to do business.

### Early years

‘Open, tolerant and connected’ is how you might describe Michael’s own background, coming as he does from an ‘international’ family. He was born to an Italian American father and an Irish American mother, and his paternal grandmother was German. His family moved to Italy from the US when he was a toddler and back again when he was five years old.

He describes his childhood as “not unusual”. He liked gadgets and science. Both of his grandfathers were engineers and his father instilled in him his own love for technology, whether that was repairing cars or recording on Super 8 film. It was also the era of the moon landing and Michael was a self-confessed “space kid”, memorising the amount of thrust Apollo had in each stage, the points at which the boosters decoupled, and the timing of re-entries.

In his mid-teens, he won a scholarship to work in a defence factory with top secret clearance to install computer guidance systems in missiles. By his own admission, it sounds fanciful. “Nobody will ever believe these stories,” he jokes. Watching footage from a camera flying over the missile testing model, it occurred to him that that process could be digitised. He had already used a

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>> digital computer in high school and put that experience to good use moving analogue missile guidance systems into digital circuitry.

**Harvard University**

The next stop was Harvard University, where he applied for a part-time job at the Harvard Laboratory for Computer Graphics and Spatial Analysis. The lab was in search of computer programmers who understood graphics. Michael got the job even though it was advertised as a postgraduate research position and he was in the first month of his first year at university.

Although he didn't know it at the time, Michael was building himself a reputation as one of the world's top computer cartography experts. In the summer of 1979, contemplating how he was going to fund his third year at Harvard, he was invited to work at Petroconsultants in Geneva, Switzerland, now part of IHS Markit. It was at Petroconsultants that he finally realised his vision of creating the world's first commercial global digital map via Geodat – a project that he initiated and became director of. This post, based in the group's London office, was Michael's first job in the UK.

**Getting technical**

Digital cartography devastated draughting and cartography posts in the oil industry. "We were sort of single-handedly responsible for thousands of job losses," Michael says. That side effect of his vision taught him a valuable lesson: get technical fast.

True to this lesson, Michael insists that every professional who joins Z/Yen but hasn't programmed must complete the freely available Harvard Introduction to Computer Science course. "That's my point about getting technical," he says. "I don't want you to be familiar with computers; I want you to actually have studied them to the depth that you could, in theory, program them. Computing is a thinking discipline essential to modern business, just as finance, law, or management is."

He believes that society needs to take a similar approach to understanding finance. "While we talk a lot about financial inclusion and lecture citizens on how to balance their chequebooks, we don't teach them about how finance works," he argues. On financial inclusion courses, for example, he wants to see students, at least once, calculating an option value. They wouldn't have to get to grips with the maths behind it, but they could begin to understand how price volatility in the future compared with price changes today begin to influence behaviour. "This is how you learn about the

// WITH A LOT OF FORTITUDE AND A BIT OF LUCK, A PERIOD OF CHANGE WILL OPEN UP SIGNIFICANT OPPORTUNITIES //

origins of financial instability and why you need to balance that chequebook," Michael says, adding, "We're struggling to come up with something that gets people 'beneath the bonnet' of money."

For those in the financial services sector, his expectations are even higher. To survive the fintech revolution, technologists in the sector need to understand the workings of finance and vice versa.

**High achiever**

For most people, creating the world's first complete digital mapping source might be enough achievement. But not for Michael. He went on to launch start-ups specialising in seismology, digital cartography, and energy information, before a spell in management consultancy, first with Arthur Andersen and then as a partner in BDO Binder Hamlyn. Next came the UK Civil Service, where he served as a director of Europe's largest research and development organisation – the Ministry of Defence's (MoD) Defence Evaluation and Research Agency (DERA). Michael helped to transform DERA's external sales into a £100m business that was eventually privatised.

Michael has been involved in many more privatisations of public services, including North West Electricity Board, South West Water, MoD spin offs, British Telecom spin offs and Nuclear Electric, as well as overseas privatisations in Hong Kong, Eastern Europe and Australia. How did he feel, then, to watch some of Britain's banking giants move into public hands during the financial crisis?

Although he is a great advocate of privatisation, he believes it only works when there is adequate competition. He attributes many of the problems in British retail banking to the "oligopoly" of five banks that control 85% of the market. There is, he says, just not enough competition in the retail banking sector: "We don't like to talk about it but 75% of the banking sector in Britain was on life support."

Michael points out that the three countries that suffered systemic retail banking crises – Ireland, Iceland and the UK – had banking markets dominated by less than a handful of banks. America's retail banking system, with nearly 8,000 banks at the time, did not have a systemic crisis, nor did Germany, with its 1,800 banks. "Both of them could handle banks failing," says Michael. "In fact, it happened every year. It wasn't an unusual thing."

**Co-founding Z/Yen**

At the time that Michael joined the MoD, he also co-founded Z/Yen as a vehicle to explore something he was passionate about and went on to tackle as a PhD student, studying mathematics, statistics and information systems at the London School of Economics – the application of risk/reward methodologies as an analytical tool. Z/Yen aims to help clients to enhance reward, reduce risk and increase certainty through better decision-making.

More interesting, however, is Long Finance – Z/Yen's research and events initiative that seeks to improve society's understanding and use of finance over the long term, the 'long term' being a timeframe of 100 years. Long Finance has created a number of flagship research projects that are gaining traction with the financial services sector, including the Global Financial Centres Index.

In 2005, it launched the London Accord, designed to introduce policymakers and non-governmental organisations (NGOs) to financial services sector thinking on how to tackle climate change. The aim was to improve the alignment and effectiveness of public and private sector thinking and action in this area. Today, the London Accord is an open source library of 600 pieces of research, donated by more than 60 institutions, all aimed at helping policymakers understand how the financial services sector can help society to become more sustainable.

**Green finance**

Sustainability is an issue close to Michael's heart and one that he has been an early advocate of – he participated in his first



climate change debate in the City in 1984. In 2017, Long Finance launched the Global Green Finance Index (GGFI), which assesses the quality and depth of green finance offerings across 110 international finance centres.

Interestingly, while Michael welcomes sponsorship of the GGFI from NGO MAVA, he is disappointed that it has struggled to attract a private sector sponsor. Does that tell him something about how ready the financial services sector is to embrace green finance?

He says the sector can be selfish in terms of avoiding self-regulation. "The LIBOR scandal took at least seven years to wake up to and people were talking about it openly, but nobody did anything," he points out. "We have a lot of scandals because we are unclear about finance's social purpose."

For Michael, this really hit home soon after the 2008 financial crisis. In an interview with *Prospect* magazine, Lord Adair Turner, then head of the Financial Services Authority, had described much of the City's activities as "socially useless" and questioned whether the City had grown too large. In the wake of the interview, an unsuspecting young banker was accosted by a TV news team in London's Finsbury Square and asked whether banking had, in fact, become socially useless. The man had no answer.

"To be in a sector where you don't understand your purpose is depressing," says Michael. "I feel we need to rediscover our sense of purpose. Knowing our social

purpose gives us direction when we start talking about how finance could help to save the planet, or help to address inequality."

**Reform from within**

Long Finance has sought to learn from what other sectors have done at times of loss of trust and credibility. The biggest lesson coming out of sectors such as mining and chemicals is that true reform starts from within. While the financial services sector has tried to change, Michael argues that existing initiatives have been ineffective because they have been apologist or reactive. He believes finance needs to produce and promote positive reform by starting with discussions about the very nature of financial services and what it is trying to do. He suggests the discussion might begin by focusing on the role of credit in modern society.

It is a huge and time-consuming task. Will the looming prospect of Brexit force the sector into taking its eye off the ball? Z/Yen's Global Financial Centres Index suggests that London is taking some small Brexit-related knocks, but it is not yet a crisis.

"With a lot of fortitude and a bit of luck, a period of change will open up significant opportunities," says Michael. "Then we must have the courage to take them. The national objective must be to reassert our reputation for pragmatism, reliability and dependability in an open and tolerant society." Luckily for the City, as Aldermanic Sheriff, Michael will be in the front line of achieving that objective. ●

**CV**

**2019** Aldermanic Sheriff of the City of London

**2018** Honorary Fellow of the Chartered Institute for Securities & Investment

**2013** Alderman of the City of London

**2008** Visiting professor, London School of Economics

**2006** Commissioner, London Waterways Commission of the Greater London Authority

**2005** Mercers' Memorial School Professor of Commerce. Gresham College; non-executive director of the UK Accreditation Service

**2004** Graduates from the London School of Economics with a PhD in Mathematics, Statistics, and Information Systems

**1995** Co-founder Z/Yen Group; corporate development director, Defence Evaluation and Research Agency

**1988** Partner and main board member, BDO Binder Hamlyn

**1985** Senior manager, Accenture

**1984** Graduates from Harvard University with a BA in Government with Physics, Mathematics and Economics

**1979** Geodat project director and Petroconsultants general manager