

## Ten Questions With No Obvious Answer

1. Why did Isabel Spearman (Samantha Cameron's Stylist) warrant an OBE?
2. Why would anybody in their right mind vote for Donald Trump?
3. Who can we blame for everything when we finally leave the EU?
4. Why does Francois Hollande pay a hairdresser €10,000 a month to deal with his partly bald pate?
5. Why do the rules of the road no longer seem to apply to cyclists?
6. Why do the banks apply an interest rate of 19.89% for an overdraft but only 0.25% (if you're lucky) on a savings account and 0% on a current account?
7. Why is it that when I buy almost anything on line it is followed up with a "5-minute survey" that always takes at least 20 minutes and asks the most fatuous questions you can imagine?
8. Why has BP's CEO Bob Dudley received a salary increase of 20% in 2015 to \$19.6 million when the company recorded a record loss of \$19.6 million and laid off 5,000 employees?
9. Why is Southern Railway trying to do away with guards on trains? If an aeroplane needs two people in the cockpit in case one is taken ill, what happens if the train driver dies or is incapacitated on a one man operated train?
10. A new drug, Truvada, has been developed to prevent gay men (and presumably others) from contracting AIDS. The NHS cannot afford it and have argued that as it is preventative treatment it should be funded by local authorities, which also cannot afford it.

So the whole thing finishes up in court no doubt with a panoply of highly paid lawyers to argue the various points. Question: If they can afford the lawyers why are they unable to afford the treatment?

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### UKAPE Contacts

If you have a home email address where we can contact you, please email the details to Peter Everitt. Updated information is also posted on the UKAPE website at: [www.ukape.org.uk](http://www.ukape.org.uk)

**John Gallen**  
President  
Tel: (M) 07906 952248  
Email: [john.gallen@ukape.org.uk](mailto:john.gallen@ukape.org.uk)



John Gallen

**Bob Simpson**  
Immediate Past President  
La Garde, 63600 Ambert,  
Auvergne, France  
Tel: 07710 770714  
Fax: +44(0)7050 659943  
Email: [bob.simpson@ukape.org.uk](mailto:bob.simpson@ukape.org.uk)



Bob Simpson

**Syd Croft,**  
Vice President  
Tel: 0191 297 2566  
Email: [syd.croft@ukape.org.uk](mailto:syd.croft@ukape.org.uk)



Syd Croft

**Mike Gibson**  
Vice President  
Tel: 01245 357 620  
Email: [mike.gibson@ukape.org.uk](mailto:mike.gibson@ukape.org.uk)



Mike Gibson

**Peter Everitt,**  
Vice President  
Tel: 0127 585 1174  
Email: [peter.everitt@ukape.org.uk](mailto:peter.everitt@ukape.org.uk)



Peter Everitt

**Jock Curer**  
Vice President  
Tel: 0116 267 4130  
Email: [jock.currer@ukape.org.uk](mailto:jock.currer@ukape.org.uk)



Jock Curer

**UKAPE,**  
Chalvey Road East,  
Slough, SL1 2LS  
01753 313 820

**Debbie Watson**  
National Officer  
Email: [debbie.watson@unitetheunion.org](mailto:debbie.watson@unitetheunion.org)

**Evelyne Furze**  
Administrator  
Email: [evelyne.furze@unitetheunion.org](mailto:evelyne.furze@unitetheunion.org)

The United Kingdom Association of Professional Engineers is the trade union for Chartered, Incorporated and Technician Engineers including all professionals in engineering. It is the only union established exclusively for this purpose, and professionals are guaranteed to be in the majority.

UKAPE - Responsible representation for professionals in engineering since 1969

## The Future of Engineering

A recent report from Engineering UK (formerly the Engineering and Technology Board) reveals some facts that should concern all Engineers.

The report states that "Engineering contributes £456bn (27%) of UK GDP and, with 1.82m engineers needed between 2012-2022, there is an annual shortfall of 55,000 skilled workers and not enough new recruits coming through the system. In fact, to meet demand we need to double the number of engineering apprentices and graduates entering the industry".



John Gallen MBA

Programs to encourage and support the entry of young people into engineering careers are beginning change the way in which engineering is viewed and the focus on STEM subjects is giving the next generation of engineers an early start in respect of the skills they need to develop. But apprenticeships, college courses and degrees in engineering are at present not growing sufficiently fast to meet future demands.

As industries automate, become more complex, and other sectors develop and innovate; the need for qualified engineers and technicians will increase especially if the UK wishes to grow at a rate needed to keep it in the forefront of engineering success.

Engineering touches every facet of our lives and will continue to be a challenging and worthy career. Engineers will have to learn new skills in business management, marketing and accountancy as more engineers rise to boardroom status or join the increasing number of entrepreneurs.

It seems that we are the least able to promote our own profession, perhaps this is a characteristic of the psyche of engineers. So what can members of UKAPE actually do, one easy thing is when you have read your copy of ET, don't "bin it" give it to someone else, leave it at your local high school or college. If you want more copies, ask your local Centre Representative. Support the STEM program by asking at your local high school or college they will welcome contact with an Engineer.

Finally, if you have any suggestions or ideas for promoting Engineering why not post it on the Members Forum for all members to share.

John Gallen MBA, President UKAPE

## Birmingham University Masters Research survey request

UKAPE has been asked to invite its members to take part in a survey of British engineers regarding the education they received on "Health and safety risk management" during their undergraduate days. This survey will contribute to a dissertation by a Masters Degree student at Birmingham University and has been endorsed by the appropriate supervisory staff at the University.

UKAPE's past and present Presidents have also given the idea their approval. The findings of the research will be made available once concluded. All responses will remain confidential and no information collected makes reference to any employer or to UKAPE as an organisation.

This exciting university wide research study by Masters in Occupational Health student Dr I Ntatalama into engineering education is currently underway. This study provides all members with a unique opportunity to influence the future of health and safety risk management education in the engineering profession.

Whilst UKAPE will circulate the link to as many members as possible by email this short announcement may not reach those who have not updated their email address in the Member's area of the website. The link to the survey is: <https://www.surveymonkey.co.uk/r/HL8YJQ8> The survey only takes 5 to 8 minutes to complete, is voluntary and all responses will be kept anonymous and confidential.

Should you wish to contact the researcher at any point, please do so at the contact details below?

**Dr I Ntatalama**

MSc Occupational Health Candidate • Email address: [I.M.T.Ntatalama@bham.ac.uk](mailto:I.M.T.Ntatalama@bham.ac.uk) • Telephone: 07767 037229

## The Construction Industry – Post Referendum

A wave of uncertainty has hit the construction industry after the UK voted to leave the European Union (EU) in the referendum on 23 June. Industry experts have expressed concern about what the vote will mean for UK's infrastructure, investment, skills and the environment.

Hywel Davies, CIBSE technical director, said: 'The vote to leave creates enormous uncertainty that will distract many in UK construction and engineering from the significant challenges that face the MEP (Mechanical, Electrical and Plumbing) sector worldwide.'

Dorte Rich Jørgensen, sustainability consultant engineer at Atkins and member of built environment think-tank The Edge, was concerned about the loss of EU funding in the sector. She said: 'Businesses need stability and investment, and there is uncertainty about how this will impact UK commerce, jobs and prosperity.'

As an EU member state, the UK has access to the European Investment Bank (EIB) and the European Investment Fund, which last year invested €7.8bn in infrastructure projects, and lent €665.8m to SMEs. Up to 60% of funding for some infrastructure projects – such as Crossrail and HS2 – comes from the EIB, which last month also announced £280m of funding for the expansion of UCL facilities and £700m of finance for the Thames Tideway Tunnel (a major new sewer in London).

There are also fears that the London economy could be impacted by the vote to leave, reducing engineering output. Other engineers warned there may be fewer opportunities for UK firms in the EU unless they already had offices in Europe, and that the outcome would affect industry's ability to recruit engineers.

The cost of labour is set to rise significantly according to some housebuilders, whose shares fell by up to 40% following the Brexit decision. Monika Slowikowska, founder of Golden Houses Developments, said: 'The cost of labour in construction has increased by an average of 8% in the last six months and it's set to keep rising. By leaving the EU, and based on our projects, we predict that this could increase by an extra 15 to 20%.' Brian Berry, chief executive of the Federation of Master Builders, added: 'If ministers want to meet their house building and infrastructure objectives, they have to ensure that the new system of immigration is responsive to the needs of industry.'

The Leave vote means we will have to look again at the Energy Performance of Buildings Regulations in the UK, which deal with energy labelling and nearly zero energy buildings. Robert Cohen, director at Verco, said: 'We could have a better tailored set of regulations, but is there the ambition to have a far-reaching

policy as we had when influenced by the EU directive?' The Climate Change Act establishes a target for the UK to reduce its emissions by at least 80% from 1990 levels by 2050, but Cohen questioned whether it will survive under a new government.

The UK's energy security is also uncertain, said Michael Grubb, Professor at UCL's Institute for Sustainable Resources. He said the ability to import cheap energy from adjoining European countries will be diminished if a trade deal cannot be struck.

Grubb went on to say: 'You require a physical connection, and the only entities we can connect to physically are mainland European countries. There is no possibility of offsetting electricity trade losses with Europe, by trading electricity elsewhere.'

Despite the uncertain times, industry professionals urged people to remain positive.

Hywel Davies said: 'We must stay focused on addressing the challenges of digitisation, resource use and skills while working through the consequences of the vote.' Dorte Rich Jørgensen added: 'We need to use this to our advantage and as an opportunity to raise our game.'

## Editorial

As we all know the totally ill-conceived referendum took place on 23 June and the gullible British public voted to leave the EU. There are those amongst us who are of the opinion that this decision is now cast in tablets of stone and further discussion is at best unhelpful. We therefore refer to the words of Ian Hislop on BBC's Question Time on 7 July this year, when a member of the audience posed the question: Whether those who voted to remain in the EU should now shut up?

Hislop's reply is reproduced in full, he said, "After an election or a referendum, even if you lose the vote, you are entitled to go on making the arguments. When a government in this country wins an election, the opposition does not say 'Oh that's absolutely right, I've got nothing to say for five years.

So, for those of us trying really hard over last few weeks to follow what on earth is happening in this country: the leave vote has left us with a group of Leaders who, having lit the fire have run away saying somebody else can clear up the mess; the Prime Minister who put us in this mess has resigned; everybody has gone, all the people who put their cross down for Leave saying "This is what we want" – they seem to be getting a group of people who say "We can't stop immigration, we can't get £350 million oh and there might be quite a bit of austerity...sorry bye!"

Whilst things have moved on since that particular television programme, there are still serious problems. The pound has fallen drastically as I know to my cost. Following an extraordinary volte-face, Theresa May is now Prime Minister and the new Chancellor, Phillip Hammond has pledged, "As we negotiate our exit from the EU... and our future relationship with it, this Government will fight for the best possible deal for British business and British workers. The best possible access to European markets for our manufacturing and services industries. And the best possible freedoms for our entrepreneurs and global exporters.....ensuring Britain after Brexit will remain one of the best places in the world for a business to invest, to innovate and to grow."

Nothing to worry about there then, apart from the currency crash on 7 October 16, however, good old Phil was pretty sanguine about that saying "The markets respond to noises." Whatever that means.

Very nearly the last word on this matter we leave with Lord Heseltine speaking at the Parliamentary Business Committee, who after referring with more than a little irony, to the "Brilliant set of appointments" of ministers to deal with the EU exit went on to say that "We have to find the places to trade, and if there are all these markets which have escaped the attention of British exporters, it will be marvelous to have them pointed out to them by the new ministers responsible."

The actual last word is with Len McCluskey, "We know that some employers may seek to use Brexit as an excuse to reduce employment, move work out of the UK or attack employment rights, pay and conditions and blame leaving the EU for doing so. Unite will not let that happen - we will defend our members' jobs, pay, conditions and employment rights." These are indeed brave words, but in reality is a right wing government such as May's going to take any notice of the Trade Unions when they will be lobbied by the employers' organisations to reduce employment rights etc, which many employers see as obstacles to their businesses. We will of course wholeheartedly support Mr McCluskey in his efforts but this will be, without doubt, a huge up-hill struggle.

## The Third Runway

The third runway has been on the political agenda for many years now and it is rumoured will be settled by the end of October. Theresa May has been described as a "no nonsense politician", whatever that means, and given that most politicians generally come up with nothing more than nonsense (Example 1: T. May on the 52% to 48% vote on 23 June, "the unambiguous stance of the great British public"; Example 2. D. Davis on the negotiations after the pound had dropped to its lowest level since 2008, "the odds are heavily stacked in our favour"). So with May in the driving seat this "no nonsense" attitude must be a first. Nevertheless, May has said that a cabinet committee will have decided on the third runway by the end of October. Although the cabinet committee has now come out in favour of Heathrow, we wait with bated breath for more obfuscation, objections, nimbyism and general indecision.

The interesting thing is that no new runways have been built in the London area since the 1940s. Heathrow, where much of this controversy is centred, happened largely by accident. An aerodrome opened in 1930 at a hamlet called Heath Row on land bought from the Vicar of Harmondsworth. During the second world war it was used as a back-up for the nearby RAF Northolt.

The main civil aerodrome for London before the war was Croydon Aerodrome. With the advent of WW2 in September 1939, Croydon Airport was closed to civil aviation but played a vital role as a fighter station during the Battle of Britain and other operations, and was designated RAF Croydon.

Following the end of the war it was realised that postwar airliners and cargo aircraft would be larger and air traffic would intensify. Urban spread of south London, and the surrounding villages growing into towns, had enclosed Croydon Airport and left it no room for expansion. Heathrow was then designated as London's airport in 1946 and became known as London Airport.

It was not long before it became apparent that the location of Heathrow was far from ideal, but it took until 1968 for a Government Commission to be formed to look into the provision of a third airport for London. This commission under the chairmanship of High Court Judge Eustace Roskill took nearly three years to publish its report which recommend an airport be built at Cublington in Buckinghamshire. This was rejected by the Heath Government probably because of the public outcry of the Tory faithful in Buckinghamshire. A second recommendation proposed by a member of the commission was adopted and construction began at Maplin Sands in the Thames Estuary and was abandoned in 1974 on the grounds of cost. The Thatcher government decided that to expand Stansted and Gatwick would be economically more acceptable.

In 1990 a third runway at Heathrow was proposed but rejected in 1995 in favour of squeezing more capacity out of the existing airports. In 2003 the Labour Party announced its support for the third runway, but because of a degree of ditheration on the part of Blair and Brown nothing happened. In 2009 Cameron announced "No ifs, no buts, no third runway at Heathrow". So in 2016, very nearly 50 years on from the first Government Commission the problem has not been resolved.

It should be remembered that the location of London's principal airport was recognised in the early fifties as problematic, yet it took a further 30 years for work to start on the Piccadilly Line extension, which opened in 1975. The Heathrow Express connection opened in 1998 some 23 years later.

Further comment on this complete and utter shambles is irrelevant.

## Tidal Lagoons

Tidal lagoons have been around for many years, the first was completed in France 50 years ago in 1966. Others have been built in the United States, South Korea, India and China to name but a few countries. Although a small version has been built in Northern Ireland there are none in mainland Britain.

There is a plan to build a lagoon in Swansea Bay and another in Cardiff Bay, but as ever, despite the fact that these power stations have popped up all over the world we in the UK have to make sure they are viable. In February this year, over 50 years after construction started in France, a Government Review into the potential of tidal lagoon technologies across the UK was announced by the Cameron Government, led by the former Conservative Energy Minister Charles Hendry. I expect that not many of our readers will have heard of Charles Hendry but by coincidence he was my local MP when I lived in Sussex and was described by one of the more rebellious constituents as "the laziest man in two shoes".

After being sacked from the post of Energy Minister in 2012, Hendry stood down as MP for Wealden in 2015 and retired to his Estate in Scotland. After attending Rugby School, he continued his education at Edinburgh University where he was awarded a Bachelor of Commerce degree in business studies. He then went to work at Ogilvy and Mather an advertising and public relations firm. On entering the world of politics Hendry became a special adviser to various Secretaries of State for Social Security. All of which makes him supremely qualified to investigate the viability of tried and tested technology.

The brief for this independent review is to "assess the strategic case for tidal lagoons and whether they could play a cost effective role in the UK energy mix".

The revolving doors of political appointments never fails to astonish and amaze (Transport today, Education tomorrow, and Health next week). It seems incredible that politicians can be experts on so many subjects. So it is with Hendry after two years as Energy Minister he is considered suitably qualified to pronounce on the subject of Tidal Lagoons, I suspect he wouldn't be able to recognise one if he fell into it. But seeing how the French have had one operational for fifty years perhaps with the advice of Mr Hendry the UK could cautiously build one in another fifty years from now.

The findings of this review were originally expected to be announced in the Autumn, however the year was not specified.

## Letters

Dear Sir,

I have been reading an interesting book, which offers a critique of the economics followed by our governments since the 1980s. It suggests that their policies are not the best for the development of the world's economy, and (arguably) that our own economic development is now also restricted as a result. As one example, Foreign Direct Investment is encouraged and welcomed, but does it provide a long term benefit to the recipient country if it is unregulated?

Many now successful countries restricted the impact of foreign companies on their economies until domestic companies had developed sufficiently to be able to compete. However, we are now told that trade restrictions such as that are bad, so how should currently developing countries achieve success?

I would be interested to read alternative opinions from your readers, justifying those policies which our governments have been implementing. The book is "Bad Samaritans. The Guilty Secrets of Rich Nations & the Threat to Global Prosperity" by Ha-Joon Cha.

Yours faithfully,  
**Peter Milne.**

*Note: We always welcome letters from our readers on almost any topic, so please let's have more of them. [Ed]*

## Alexander Boris de Pfeffel Johnson

Regular readers will perhaps remember a previous article about the ebullient and avuncular Johnson, the people's lovable politician. (See Engineer Today Summer 2013 – it's on the website.)

Since those far off days when he was Mayor of London he has come a long way and is now Her Majesty's Foreign Secretary. Many people have questioned this appointment, but whatever else you may think about Theresa May, she is no fool and we suspect she is following Lyndon B Johnson's comments concerning J. Edgar Hoover and his location either in or out of the tent and his actions in either case.

Nevertheless, Johnson's legacy as mayor will not go away. The planning procedures in London are slightly different from other locations. Initially an application will go to the Planning Department of the appropriate London Borough and a decision is reached. In most instances that is where the matter rests, however there is the facility to appeal this decision and also, to use the jargon, the Mayor has the option to call it in. Having done so the Mayor can either endorse or overrule the decisions made by the planning committees of the London boroughs.

The facts are that over the time Johnson was Mayor of London, has called in thirteen planning applications that had been turned down by the local authority and in every case he found against the local authority concerned and for the developers. Again in every case the planning application had involved large tower blocks, which will inevitably change the character of the capital.

What is more worrying is the fact that the democratic planning process has been undermined by one person's private agenda. It could be that Johnson actually thinks that more tower blocks will enhance the city, or it could be something else, at this stage it is doubtful that the public will ever know. What is known however are the facts surrounding Johnson's last intervention. British Land put forward a scheme to redevelop an area in east London close to the old Spitalfields Market, the Spitalfields Trust, a conservation group, using a Freedom of Information request discovered that on the day that a planning decision letter and a large bundle of documents were delivered to the Greater London Authority, consultants acting for the developer received an email assuring them that the mayor would call in the application, before anyone could possibly have examined the documents and considered the evidence.

The final thought concerning Johnson's interest in planning matters is the proposed Garden Bridge. This idea was first proposed by Joanna Lumley, as a pedestrian crossing over the Thames enhanced by a variety of plants. Whilst this may or may not have merits which at first sight are somewhat difficult to see, Johnson leaped in to support the idea with gusto. He apparently appointed the Heatherwick Studio to undertake the design.

Thomas Heatherwick is not an Architect nor is he an Engineer but was chosen over two other firms with considerably more bridge design experience.

In addition, it seems that the Mayor flew to San Francisco at council tax payers expense to meet Heatherwick with a view to raising funds for the project, before the Heatherwick design was approved. The obvious question is simply why?

In fact, the president of the Royal Institute of British Architects has commented that the project should be put on hold in order that the procurement process is properly scrutinised.

The results of this scrutiny, if it is ever implemented, should be very interesting indeed.

## Institution Services

The Engineering Institutions appear to be offering an ever widening range of services to its Members. Although I can only speak of personal experience of the IMechE, I have no doubt that the other institutions act in a similar fashion.

Whilst the impression given by the Institutions' publicity is that their 'partners' services are free for the asking, in actual fact they are not. As far as any legal assistance is concerned, the first half hour or so may be free, but, from thereon in, solicitors' rates apply, and as we all know, they can be horrendous.

Any UKAPE Members' legal fees on the other hand, are paid for by the Union.

A young suitably qualified Engineer can therefore join an appropriate Institution and/or UKAPE. With the former, the Engineer can work towards internal qualifications which will result in letters after their name. These are very valuable, both on a CV and a visiting card. UKAPE, on the other hand gives its Members security, which is absolutely invaluable and can be seen to be so by those of us who have ever been involved in any kind of Industrial dispute.

In trying to persuade Engineers to join UKAPE it should be realized that we are not in competition with the Institutions, but that we are offering an invaluable additional service. One way of viewing the overall situation is that joining an Institution helps you get a job, joining UKAPE helps you keep it.

The problem is that they both cost money and whether an Engineer's salary will permit dual membership is another matter.

**Syd Croft**

*[Ed: We are indebted to Syd for this insight which covers the advantages of UKAPE membership. As he says we are not in competition with the Institutions, they are learned societies we are a union, protecting members' interests at work, which the Institutions cannot do. As an aside to this, I was an employment tribunal member for nearly twelve years and I remember at one of the training sessions being told that employment law is the fastest moving branch of the law. That being so, it requires specialist solicitors, which UNITE can provide. This is not an area where a regular high street solicitor can provide the best advice. I am not convinced that most people realise this.]*