

Press release: We bake a winner – could you?

Building roads may seem a million miles from baking, but a good quality motorway, or major A road – those managed by us – is made up of many, distinctive layers, all with expertly picked and mixed ingredients.

Our Director of Asset Development, Safety, Engineering and Standards Nicola Debnam said:

Our roads connect the country together and our network helps four million journeys to be made safely and reliably each day. We want the people who use them to be safe and a big part of that is ensuring we have a good quality road surface too. Some people may not be aware of the incredible engineering that has taken place beneath their wheels to make them happen. But just like a cake, it really is a refined recipe.

We hope our new way of illustrating our work will encourage people who may not normally consider a career in engineering to think again – a job with Highways England could satisfy your career appetite!

Our teams of expert chefs design each road, building a number of special layers starting with a sub-base and finishing with the smooth icing of the surface layer.

Road surface expert Lyle Andrew, Director of Development for the Institute of Asphalt Technology, added:

Just as expert bakers carefully select and prepare their ingredients to make the finest cakes, highway engineers specify and use high quality constituents to ensure that the materials used in the construction of our roads make the perfect blend of strength, durability and smooth surface. An accurate proportion of each ingredient is as vital to the engineer as it is to the star baker.

Using our well tested basic recipe (we don't take any whisks!), our chefs will change the ingredients for each road as needed.

Starting with a sub-base of crushed stones, like a cheesecake base giving the cake a strong foundation and preventing a 'soggy bottom', it's followed by a base of coarse stones like a rich fruit cake full of fruit and nuts. Next our chefs work on the binder layer, which is like a sponge full of fine ingredients (flour and sugar), similar to a Victoria sponge. Finally, as with any quality cake our surface layer, like the good quality smooth icing,

providing drivers with a smooth skid resistant surface while preventing surface water from seeping into the other layers. Each layer has a special purpose, whether providing support, drainage or load distribution.

Holding the winning cake design together is a layer of top quality sticky jam, otherwise known as the bond coat.

It works the other way too. In a Highways England-funded trial, Nottingham University has used every day sunflower oil, to help repair road surfaces. The University found that by placing capsules of the oil in asphalt, a material used for surfacing roads, they would 'heal' cracks in the road as they emerged by softening the asphalt around the crack.

So while you settle down to watch the Bake Off contestants battle it out , consider that if you love baking, you might love making a road.

Motorways and major A roads connect businesses, families and friends. Yet the country faces a shortage of the people that build them. That's why we're taking part in the [Year of Engineering](#) campaign, which aims to inspire young people to consider engineering as a rewarding career. The company is looking for a continuing pipeline of young engineers to deliver the multi-billion investment plans network, improving lives and making a positive difference to the world.

If this has inspired you to consider a career in engineering please visit our [careers website](#) for further details.

General enquiries

Members of the public should contact the Highways England customer contact centre on 0300 123 5000.

Media enquiries

Journalists should contact the Highways England press office on 0844 693 1448 and use the menu to speak to the most appropriate press officer.

[Press release: We bake a winner – could you?](#)

Building roads may seem a million miles from baking, but a good quality motorway, or major A road – those managed by us – is made up of many, distinctive layers, all with expertly picked and mixed ingredients.

Our Director of Asset Development, Safety, Engineering and Standards Nicola Debnam said:

Our roads connect the country together and our network helps four million journeys to be made safely and reliably each day. We want the people who use them to be safe and a big part of that is ensuring we have a good quality road surface too. Some people may not be aware of the incredible engineering that has taken place beneath their wheels to make them happen. But just like a cake, it really is a refined recipe.

We hope our new way of illustrating our work will encourage people who may not normally consider a career in engineering to think again – a job with Highways England could satisfy your career appetite!

Our teams of expert chefs design each road, building a number of special layers starting with a sub-base and finishing with the smooth icing of the surface layer.

Road surface expert Lyle Andrew, Director of Development for the Institute of Asphalt Technology, added:

Just as expert bakers carefully select and prepare their ingredients to make the finest cakes, highway engineers specify and use high quality constituents to ensure that the materials used in the construction of our roads make the perfect blend of strength, durability and smooth surface. An accurate proportion of each ingredient is as vital to the engineer as it is to the star baker.

Using our well tested basic recipe (we don't take any whisks!), our chefs will change the ingredients for each road as needed.

Starting with a sub-base of crushed stones, like a cheesecake base giving the cake a strong foundation and preventing a 'soggy bottom', it's followed by a base of coarse stones like a rich fruit cake full of fruit and nuts. Next our chefs work on the binder layer, which is like a sponge full of fine ingredients (flour and sugar), similar to a Victoria sponge. Finally, as with any quality cake our surface layer, like the good quality smooth icing, providing drivers with a smooth skid resistant surface while preventing surface water from seeping into the other layers. Each layer has a special purpose, whether providing support, drainage or load distribution.

Holding the winning cake design together is a layer of top quality sticky jam, otherwise known as the bond coat.

It works the other way too. In a Highways England-funded trial, Nottingham University has used every day sunflower oil, to help repair road surfaces. The University found that by placing capsules of the oil in asphalt, a material used for surfacing roads, they would 'heal' cracks in the road as they emerged by softening the asphalt around the crack.

So while you settle down to watch the Bake Off contestants battle it out ,

consider that if you love baking, you might love making a road.

Motorways and major A roads connect businesses, families and friends. Yet the country faces a shortage of the people that build them. That's why we're taking part in the [Year of Engineering](#) campaign, which aims to inspire young people to consider engineering as a rewarding career. The company is looking for a continuing pipeline of young engineers to deliver the multi-billion investment plans network, improving lives and making a positive difference to the world.

If this has inspired you to consider a career in engineering please visit our [careers website](#) for further details.

General enquiries

Members of the public should contact the Highways England customer contact centre on 0300 123 5000.

Media enquiries

Journalists should contact the Highways England press office on 0844 693 1448 and use the menu to speak to the most appropriate press officer.

[Press release: Up to £50 million to develop world leading AI talent in the UK](#)

The Government has committed further investment to the UK's booming Artificial Intelligence (AI) sector by announcing up to an additional £50 million to attract and retain the world's top talent.

The announcement within this week's budget builds on the AI Sector Deal, worth up to almost £1 billion, launched earlier this year. As part of the government's modern Industrial Strategy, the sector deal set out how the UK will be at the forefront of the AI and data revolution.

Working with the Alan Turing Institute, up to £50 million will be invested in new Turing AI Fellowships to help bring the best global researchers in AI to the UK. The funding will allow the UK to attract, retain and develop world leading research talent.

DCMS Secretary of State Jeremy Wright said:

Through our modern Industrial Strategy we're joining with industry

to invest close to £1 billion in AI, to position the UK as one of the best places in the world to develop and use this exciting new technology. This investment will help us to recruit and retain the best talent in AI and ensure that we are leading the way on research and development in the sector.

Business Secretary Greg Clark said:

The huge potential of artificial intelligence to transform our economy and our lives for the better, from revolutionising cancer treatment to combating financial fraud, is at the heart of our modern Industrial Strategy.

This investment is the next step in our commitment to make Britain the world's most innovative economy, with highly-skilled jobs in every part of the UK.

Adrian Smith, Director of The Alan Turing Institute commented:

In order to realise the significant opportunities for innovation and growth offered by the data and artificial intelligence revolution, it is essential that we nurture and grow the very best academic talent and expertise. We are delighted to be working with the Government Office for AI to deliver the Turing AI Fellowships, bringing the best global researchers to collaborate with us in the UK and driving forward impact in these technologies for the benefit of science, society and the economy.

AI technologies offer the potential to drive productivity up by up to 25 per cent by 2035. The UK is already home to some of the biggest names in the business such as DeepMind and is well placed to seize the opportunities that AI brings.

Investing in leading academic talent will secure the UK's international competitiveness and help us to ensure we have the necessary skills and talent in the UK to help us reap the potential benefits that AI offers across all sectors.

Also announced at budget was a new review between the Office for AI and Government Digital Service (GDS) on how government can use AI in new ways to drive improvements in public services and wider economic benefits.

The Office for AI and others in HMG will work with the Alan Turing Institute to finalise the details of the programme over the next few months, with a view to the first fellows being in place by Autumn 2019.

Press release: Up to £50 million to develop world leading AI talent in the UK

The Government has committed further investment to the UK's booming Artificial Intelligence (AI) sector by announcing up to an additional £50 million to attract and retain the world's top talent.

The announcement within this week's budget builds on the AI Sector Deal, worth up to almost £1 billion, launched earlier this year. As part of the government's modern Industrial Strategy, the sector deal set out how the UK will be at the forefront of the AI and data revolution.

Working with the Alan Turing Institute, up to £50 million will be invested in new Turing AI Fellowships to help bring the best global researchers in AI to the UK. The funding will allow the UK to attract, retain and develop world leading research talent.

DCMS Secretary of State Jeremy Wright said:

Through our modern Industrial Strategy we're joining with industry to invest close to £1 billion in AI, to position the UK as one of the best places in the world to develop and use this exciting new technology. This investment will help us to recruit and retain the best talent in AI and ensure that we are leading the way on research and development in the sector.

Business Secretary Greg Clark said:

The huge potential of artificial intelligence to transform our economy and our lives for the better, from revolutionising cancer treatment to combating financial fraud, is at the heart of our modern Industrial Strategy.

This investment is the next step in our commitment to make Britain the world's most innovative economy, with highly-skilled jobs in every part of the UK.

Adrian Smith, Director of The Alan Turing Institute commented:

In order to realise the significant opportunities for innovation and growth offered by the data and artificial intelligence

revolution, it is essential that we nurture and grow the very best academic talent and expertise. We are delighted to be working with the Government Office for AI to deliver the Turing AI Fellowships, bringing the best global researchers to collaborate with us in the UK and driving forward impact in these technologies for the benefit of science, society and the economy.

AI technologies offer the potential to drive productivity up by up to 25 per cent by 2035. The UK is already home to some of the biggest names in the business such as DeepMind and is well placed to seize the opportunities that AI brings.

Investing in leading academic talent will secure the UK's international competitiveness and help us to ensure we have the necessary skills and talent in the UK to help us reap the potential benefits that AI offers across all sectors.

Also announced at budget was a new review between the Office for AI and Government Digital Service (GDS) on how government can use AI in new ways to drive improvements in public services and wider economic benefits.

The Office for AI and others in HMG will work with the Alan Turing Institute to finalise the details of the programme over the next few months, with a view to the first fellows being in place by Autumn 2019.

News story: Stronger protection from violence for NHS staff

Secretary of State for Health and Social Care Matt Hancock is announcing the first ever NHS violence reduction strategy.

The new, zero-tolerance approach aims to protect the NHS workforce against deliberate violence and aggression from patients, their families and the public, and to ensure offenders are punished quickly and effectively.

The strategy includes:

- the NHS working with the police and Crown Prosecution Service to help victims give evidence and get prosecutions in the quickest and most efficient way
- the Care Quality Commission (CQC) scrutinising violence as part of their inspection regime and identifying trusts that need further support
- improved training for staff to deal with violence, including circumstances involving patients with dementia or mental illness
- prompt mental health support for staff who have been victims of violence

Matt Hancock is making the announcement in a speech to the Royal College of Nursing.

The most recent NHS staff survey showed that more than 15% of NHS employees have experienced violence from patients, their relatives or the public in the last 12 months – the highest figure for 5 years.

To understand the reasons behind the rise in reported violence, the strategy will allow staff to more easily record assaults and other incidents of abuse or harassment.

Trusts will be expected to ensure every incident is investigated in full and lessons used to protect staff from future incidents.

The government is also drawing up plans for violence and abuse data from across the NHS to be reported nationally. This should allow the government and NHS England to determine which staff are most vulnerable to violence and allow for appropriate action to be taken.

The new plans follow the [Assaults on Emergency Workers \(Offences\) Act](#), which was recently brought into law and will see the maximum prison sentence for assaulting an emergency worker double from 6 months to a year.

Matt Hancock, Secretary of State for Health and Social Care, said:

NHS staff dedicate their lives to protecting and caring for us in our times of greatest need and for any one of them to be subject to aggression or violence is completely unacceptable.

I have made it my personal mission to ensure NHS staff feel safe and secure at work and the new violence reduction strategy will be a key strand of that.

We will not shy away from the issue – we want to empower staff and give them greater confidence to report violence, knowing that they will see meaningful action from trusts and a consistent prosecution approach from the judicial system.

Sara Gorton, UNISON Head of Health, and Social Partnership Forum Staff Side Chair, said:

NHS staff spend their working days caring and saving lives, and their safety should be paramount.

No one should be abused, threatened or attacked at work – especially when all they're trying to do is help people.

It is encouraging that the government has listened to unions and agreed to review measures in place to ensure staff safety. This includes a more joined-up approach between the NHS, police and CPS.

Anyone who threatens or abuses NHS staff should be prosecuted under the new law protecting health care workers.