

# Thousands to benefit from new English language classes

A new £6.5 million English language programme to help local authorities to meet the English language needs of their communities was announced today (6 March 2020) by Communities Secretary Robert Jenrick.

The programme will help people fulfil their potential and increase integration in their local area.

Building on the success of previous community-based programmes, the £6.5 million English for Speakers of Other Languages (ESOL) for Integration Fund will fund classes for up to 25 local authorities.

Since 2013 over 100,000 places have been made available to help isolated adults improve their English language proficiency and build their self-confidence through community-based programmes.

The new programme will deliver high-quality language teaching in familiar and accessible community locations including schools, registered childcare settings and places of worship.

It is also designed to improve people's connection to their local area and encourage social relationships between different communities.

Lack of English skills presents a clear barrier to social and economic mobility. For some learners more formal approaches to learning English can be challenging.

The most common difficulties are travel costs, lack of childcare, illiteracy in their first language or a reluctance or lack of confidence to make the first steps towards learning English.

The new programme aims to remove those obstacles and continue to fund classes in familiar community locations.

Communities Minister Rt Hon Robert Jenrick said:

This government is committed to uniting and levelling up our country and that means building a rich and vibrant but integrated society.

Learning English is essential to life and work in this country and people see huge benefits when they can speak our language fluently.

We are making this requirement in our new British immigration system and funding for existing citizens who speak little or no English, providing further funding to help them learn English quickly and in doing so, play a full part in their local community.

Up to £6.5 million is available in 2020 to 2021 to support up to 25 successful local authority proposals for one year. £5 million will be available to support taught sessions to participants at New to ESOL (Pre-Entry – Entry Level 1) by qualified ESOL practitioners; and £1.5 million will be available for social mixing opportunities for the whole ESOL community through clubs and activities.

The fund provides an opportunity for local authorities to tell the department about their area and how they will deliver learning to residents with little or no English language, who may feel disconnected within their local communities. Find [details on the application process and the ESOL for Integration Fund prospectus](#).

The most recent Census (2011) found that 770,000 people that live in England speak little or no English. The demand for English language classes remains high.

The Ministry of Housing, Communities and Local Government has a successful track record of delivering English for Speakers of Other Languages (ESOL), in community-based settings, as a key intervention to support increased social integration. Interventions range from the Community Based English Language Programme in 2013 to the Integrated Communities English Language Programme in 2019 to 2020.

For the last 3 years ESOL social mixing opportunities, such as conversations clubs and activities, have also been supported by the department through the Controlling Migration Fund.

The English language teaching will focus on connecting learners to the places, spaces and people in their local area – helping them in everyday situations such as shopping in the high street, visiting the doctor or attending a parents' evening. The fund will also provide opportunities for English language practice and social mixing through shared interests and activities.

The fund is intended to supplement English language provision already available under the Adult Skills Budget and many of the participants will be expected to progress to more formal ESOL classes as their proficiency and confidence grows.

---

## [John Wilson MBE honoured with new rod licence images](#)

A stunning image of a Wensum River roach is the choice for one of this year's Environment Agency rod licences, commemorating the angling legend John Wilson MBE.

As in previous years, the impressive artwork has been created by the famous fish and wildlife painter David Miller.

John Wilson inspired countless anglers to take up the sport with his famous TV series Go Fishing and John Wilson's Fishing World. Recognised by the Angling Times in 2004 as the Greatest Angler of all Time, John dedicated his life to the love of his sport and to inspiring new generations to discover angling.

He was awarded an MBE in 2009 in recognition of his outstanding services to angling.

The unveiling of the image of the Wensum River roach, a beautiful blue-silvery fish with characteristic vivid red pectoral fins and red-orange eyes – Wilson's all-time favourite fish – kick-starts the angling season for 2020.

Also unveiled today are new images on the 12-month 2-rod trout and coarse licence and the 12-month salmon and sea trout licence. The 2-rod licence features the minnow, a small fish commonly found across the country in flowing waters, while the migratory salmon licence shows the Atlantic salmon in one of its juvenile forms, the parr.

Lisa Wilson, the daughter of late John Wilson and an active promoter of angling's health benefits, said:

One of my favourite memories of fishing with Dad was going on a night fishing trip when I was around four years old. I had his undivided attention and we shut the rest of the world out. It was a magical and fantastic experience of the wonders of the outdoors.

Angling gives you a marvellous range of physical and mental health benefits, bringing you closer to nature. I encourage everybody to give this sport a go this season. What a way to kick-off the new angling season while remembering our fishing legend.

Kevin Austin, Deputy Director Agriculture, Fisheries and the Natural Environment at the Environment Agency said:

We are incredibly excited to launch the new set of the rod licence images. Every year, they are hotly anticipated by all anglers and this year they are even more special. It is a privilege to commemorate the legendary figure of John Wilson and to promote his legacy to all anglers.

We encourage you to join over half a million anglers in getting your hands on this year's fabulous new licences. The funding from licence sales enables us to carry out vital projects supporting

anglers and fisheries across England, such as stock surveys, improving fish stocks and waterways and promoting the sport to a wider range of people.

Helping promote John Wilson's legacy is his friend and fellow fisherman Nick Beardmore, now Environment Agency Enforcement Officer. Nick said:

John always returned to fish on Norfolk's River Wensum in the hope of catching his favourite fish.

We organised many fantastic early spring trips on this beautiful river. We were always up and out at dawn, cooking our breakfast on the boat while enjoying the fresh outdoors. John's favourite roach is usually the size of the palm of your hand, but on mine and John's favourite stretch of river they were the size of dinner plates.

The 12-month fishing rod licences start from only £30 to fish for trout and coarse fish and cost £82 for salmon and sea trout. Concessions and short term licences are available.

Buying a fishing licence is quick and easy. Licences are available from only £30 for a whole year and are available [at this link](#).

Fishing licence income is used to fund work to maintain, improve and develop fisheries, fish habitats and angling. This includes river habitat improvements and construction of methods to improve fish passage, amongst other crucial projects.

---

## **Multi-million government investment in the future of UK science**

- Major £179 million government investment will support the next generation of scientists, mathematicians and engineers from all backgrounds
- first-ever Stephen Hawking Fellows also announced, furthering the legacy of science's brightest star while enhancing our understanding of the universe
- comes alongside government funding to improve and boost uptake of science subjects at school

The next generation of world-leading scientists across the UK will benefit from a multi-million-pound government package of investment, the government announced today (Friday 6 March).

Marking the start of [British Science Week](#), Business Secretary Alok Sharma and Education Secretary Gavin Williamson announced funding to support up to 11,000 students through 41 Doctoral Training Partnerships, as well as encourage more young people, particularly girls, to study STEM subjects at school and university, and pursue a STEM-related career.

The investment includes:

- £179 million for PhDs, formally known as Doctoral Training Partnerships, at over 40 UK universities in physical sciences, maths and engineering to develop the skills for ground-breaking research and high-tech industries like cyber security and chemical manufacturing. Part of the investment will go into pilots looking at how best to attract and support those from non-academic backgrounds to undertake this type of training.
- £8.9million to continue funding science education programmes including [Science Learning Partnerships](#) and [Stimulating Physics Networks](#), which aim to improve science teaching and increase the take up of science at GCSE level and A level and ultimately encourage young people to pursue a STEM-related career.

Business Secretary Alok Sharma said:

From Ada Lovelace to Stephen Hawking, our scientists and the discoveries they have made have pushed the boundaries, improving our healthcare and transforming the way we live, work and travel.

Today's funding will support the talented people we have in this country to study these vital subjects, develop technologies for the future and support the UK's status as a science superpower.

Education Secretary Gavin Williamson said:

Making sure that the next generation has the scientific skills to meet the world's needs – from developing green technologies to curing illnesses – couldn't be more important.

That's why we continue to invest in science programmes in our schools and ensure that anyone, regardless of their background, can participate.

Girls now make up just over half of A level entries for the three core science subjects but there is more we can do so we will fund

research to better understand how we can improve girls' physics A level participation.

The government also announced the first [Stephen Hawking Fellows](#), who will continue Professor Stephen Hawking's legacy by furthering understanding of the Universe and tackling major scientific questions like the nature of dark matter and how planets are formed.

They will receive a portion of the £15 million funding already announced by the government, in partnership with the Hawking family, in 2018. The Fellowships will support ground-breaking research across physics, maths and computer sciences that challenges current assumptions, advances scientific knowledge and inspires the public through their discoveries.

Stephen Hawking's children, Lucy, Robert and Tim Hawking, said:

We are proud to be associated with this initiative, which builds on the legacy of our father by supporting research into these areas of science.

One of his greatest achievements was opening up even the most complex scientific breakthroughs to the wider world and we hope that these Fellows are able to continue that important mission by inspiring people from all walks of life in the wonders of science.

UK Research and Innovation Chief Executive, Professor Sir Mark Walport, said:

Professor Stephen Hawking pushed forward the boundaries of human knowledge, both through his research which transformed our understanding of the universe and his rare talent for communication.

The Fellows announced today will continue his legacy, pushing the boundaries of knowledge and inspiring the public with the value and beauty of science.

The EPSRC Doctoral Training Partnerships will play a key role in equipping a diverse range of researchers and innovators with the skills they need to generate impact across the UK.

Today's funding announcements follow the government investing up to £300 million to fund experimental and imaginative mathematical sciences research over the next 5 years. The new funding forms part of the government's commitment to significantly boost research and development funding reaching 2.4% of GDP by 2027 and levelling up every part of the UK.

## Doctoral training partnerships in physical sciences, maths and engineering

Previous government investments in physical sciences, maths and engineering doctoral training have resulted in pioneering advances – they include developing new methods to predict the location of road collision hotspots (University of Newcastle) or hydrogel-based wound dressing that helps them to heal and control infections (University of Bath with Public Health England).

After completing PhDs, nearly 40% of engineering and physical sciences doctoral students go on to be employed in business or public services, with 39% of those working in academia and 22% using this knowledge and skill in training or working in other sectors.

EPSRC Executive Chair, Professor Dame Lynn Gladden, said:

Doctoral training is a vital element of the UK's research and innovation system, providing thousands of people with the skills they need to succeed and deliver benefits for the UK.

EPSRC's Doctoral Training Partnerships provide an opportunity for universities to support ideas from outstanding research students, to explore emerging research areas and to support universities' research priorities.

The £179 million funding in Doctoral Training Partnerships (DTPs) will be managed by the [Engineering and Physical Sciences Research Council](#) (EPSRC), part of [UK Research and Innovation](#) (UKRI)

EPSRC supports about 11,000 doctoral students through DTPs, Centres for Doctoral Training and Industrial Cooperative Awards in Science and Technology (CASE) studentships.

The 4 pilot projects include:

- defending the UK through novel cybersecurity and defence systems research: the University of Southampton will develop the skills of current and former defence and security staff, armed services personnel and police through new research focusing on cybersecurity and control systems for autonomous systems like drones
- driving productivity for sustainable growth: Brunel University London will provide future engineers with the skills, knowledge and experience to drive forward research and innovation in sustainable technologies, supporting the UK to reach its net zero ambitions
- expanding skills in data-science and engineering: Queen Mary University of London has partnered with IBM, BT and the BBC to expand the number of scientists and engineers with data-science and engineering skills, by providing students with access to world-class researchers and facilities, while allowing them to apply their new found skills in an industry setting

- developing sustainable and efficient chemical manufacturing: the University of York will develop the skills of research scientists and employees working in the chemicals industry to help chemical businesses transform their current manufacturing practices, so they are more efficient and sustainable

Universities hosting DTPs in for students starting in the 2020 and 2021 academic years:

Aston University	Brunel University London
Cardiff University	Cranfield University
Durham University	Heriot-Watt University
Imperial College London	King's College London
Lancaster University	Loughborough University
Newcastle University	Open University
Queen Mary University of London	Queen's University of Belfast
Swansea University	The University of Manchester
UCL	University of Bath
University of Birmingham	University of Bristol
University of Cambridge	University of East Anglia
University of Edinburgh	University of Exeter
University of Glasgow	University of Huddersfield
University of Kent	University of Leeds
University of Leicester	University of Lincoln
University of Liverpool	University of Nottingham
University of Oxford	University of Plymouth
University of Sheffield	University of Southampton
University of St Andrews	University of Strathclyde
University of Surrey	University of Warwick
University of York	

## **Boosting science uptake at school**

We have also seen a 31% in the number of STEM A levels entries taken by women in England between 2010 and 2019.

The government will continue to fund a number of programmes in science education for a further year, including:

- the network of 41 Science Learning Partnerships, run by STEM Learning, which aims to improve the quality of science teaching and increase the take up of GCSE science. The Department for Education has provided £17.7 million of funding from 2016 to 2020
- Project Enthuse, which provides bursaries for science teachers and technicians to attend high-quality professional development. The department and the Wellcome Trust have jointly funded this programme, with the Department for Education providing a total of £13.1 million from 2013 to 2020



- the Isaac Physics programme, run by the University of Cambridge, which offers support and activities in physics problem solving to teachers and students studying GCSE and A level physics. The Department for Education has provided £7.3 million grant funding from 2013 to 2020
- the Stimulating Physics Networks, run by the Institute of Physics, to improve the take up of A level physics, particularly by girls. The Department for Education has provided £8.6 million of funding for the SPN from 2016 to 2020. This includes funding for the Institute of Physics to deliver the Improving Gender Balance research trial, which aims to encourage greater uptake of physics among girls

## **The Stephen Hawking Fellowships and the Fellows**

In collaboration with the Hawking family, the Stephen Hawking Fellowships were launched by the government in 2018, in recognition of Stephen Hawking's exceptional contributions to scientific knowledge and popularisation of science.

Each Stephen Hawking Fellowship provides up to 4 years' funding, dependent on the nature of the proposed research, for fellows with a strong passion for curiosity-driven science, who seek to challenge current assumptions and inspire the public through their work.

Fellows will carry out public engagement and scientific communication to help them inspire a wider audience to explore complex scientific ideas.

### **Dr Danai Antonopoulou – The University of Manchester**

As small as cities and incredibly dense, neutron stars are formed from the collapse of giant stars. Due to these extreme conditions the neutral particles – neutrons – that form them behave as superfluids inside a hard crust that forms the star's exterior. Each neutron star is surrounded by a magnetosphere, like Earth's but a trillion times stronger.

Based at the Jodrell Bank Centre of Astrophysics, Dr Antonopoulou will advance our knowledge of neutron stars and their unusual physical properties, such as superfluidity and superconductivity and the nature of extremely dense matter.

A detailed public engagement programme aimed at school children and students, and targeting underrepresented groups, will aim to inspire them about astrophysics and science in general.

### **Dr Martin Archer – Imperial College London**

The interplay between the Earth's magnetic field and the wind of electrically-charged particles blown off the Sun forms a shield in space, protecting us against most of the harmful radiation from the Sun and more distant sources.

Sound waves bounce around the different regions of this shield, acting like different instruments in an orchestra that transfers energy into our atmosphere. Dr Archer's research will focus on the part of the shield that

creates drum-like vibrations, and the results could ultimately be used to improve forecasting of space weather and predict potential risks to satellites.

He will also produce virtual reality experiences and a 'magnetospheric drum kit' to be used by artists, filmmakers and musicians in creating works for performance, as well as by communities within the public that don't normally seek out or are underrepresented in science.

### **Dr Francesca Chadha-Day – King's College London**

85% of the matter in the universe is made up of dark matter, but the only way we know it is there is by observing its gravitational pull on stars, galaxies and other visible matter. As such, the search for dark matter is one of the greatest outstanding questions in physics.

Dr Chadha-Day will explore the theory that axion-like particles – a theoretical form of ultralight particle – could form dark matter, using telescope observations of neutron stars and galaxy clusters to search for axion-like particles.

She will also communicate her research and the wonders of physics to the public through stand-up comedy, while also engaging schools through talks and workshops.

### **Dr Andrei Constantin – University of Oxford**

String theory is one of the leading candidates for a 'theory of everything', addressing outstanding questions such as how gravity and quantum mechanics work together on the smallest scale. It proposes that all fundamental particles including electrons, quarks and the Higgs boson are tiny strings or membranes that vibrate in space.

Dr Constantin will conduct forefront research in Mathematics, aided by machine learning, in order to elucidate the precise map between strings and elementary particles and ensure that the theory can be tested against data, such as that from the Large Hadron Collider.

The research programme is linked with an important range of outreach activities including talks to local schools and the public as well as popular science publications, which will bring the fruits of the work to wider society.

### **Dr Ömer Gürdoğan – University of Southampton**

Quantum Field Theory is at the heart of particle physics and describes the behaviour of particles that make up the universe. However, our understanding of the essential aspects of Quantum Field Theory is very limited.

Dr Gürdoğan will focus on scattering amplitudes, which are the quantum probabilities of the interactions of fundamental particles, and work towards an improved picture of Quantum Field Theory to help answer questions about how nature works at microscopic scales.

He will also conduct outreach activities including art exhibitions, interactive demonstrations in science centres, and virtual reality demonstrations for use in schools.

#### **Dr Scott Melville – University of Cambridge**

The very early universe was so hot and dense that particles experienced energies far greater than any we could recreate here on Earth. Measuring signals from this early time can teach us important lessons about physics in extreme conditions and help us to understand what is responsible for the rapid expansion of the early universe.

Understanding these extremely high energy processes will shed light on the fundamental structure of matter, such as what it is made of and how it is held together, and how it interacts with gravity.

Dr Melville aims to guide upcoming experiments to measure signals from the early universe, which could improve our understanding of the world around us. He will also develop public engagement activities, such as public talks.

#### **Dr Francesco Muia – University of Cambridge**

The recent detection of gravitational waves has opened a new era in astronomy and astrophysics, opening a new window of observation for phenomena in which gravity, instead of light, is the messenger and can be used to explore new fundamental physics.

Dr Muia will explore the catastrophic processes that produced gravitational waves during the first second of the universe's history. The observation of such gravitational waves would lead to a substantial advancement in our understanding of the early universe.

In addition to the scientific impact of his work, he will aim to inspire the next generation of research leaders, carrying out lectures and public engagement activities on the history of the universe to schools in the UK.

#### **Dr Rebecca Nealon – University of Warwick**

Protoplanetary discs are formed by the gravitational collapse of gas and dust and serve as the birthplace of planets. Recent observations have shown that not all of these discs are aligned like the planets in our solar system. Instead, some are misaligned and show complicated structures.

Dr Nealon's research will focus on the formation of these misaligned discs and could generate new knowledge about how planets interact with their host disc as well as the diversity of planets outside of our own solar system.

She will use numerical simulations along with observations of protoplanetary discs, generated through state-of-the-art telescope facilities, to engage the public as well as delivering public talks and contributing to outreach activities.

## Dr Stefan Schacht – The University of Manchester

The Big Bang is believed to have created equal amounts of matter and antimatter, but almost everything we know – from the smallest object on Earth to the biggest star – is made up of matter. The quest for the missing antimatter is one of physics' greatest outstanding questions.

Dr Schacht aims to build on last year's observation of the unique phenomenon of matter-antimatter asymmetry in a form of particle called the D0 meson, to take us one step closer to answering our big questions about the fundamental laws of nature.

He plans to engage the wider public by establishing a programme for particle physics at the Bluedot festival, an annual music, science and art festival at the Jodrell Bank Observatory in Manchester.

Dr Schacht aims to build on last year's observation of the unique phenomenon of matter-antimatter asymmetry in a form of particle called the D0 meson, to take us one step closer to answering our big questions about the fundamental laws of nature.

---

## [Just a minute: Spare 60 seconds to help save lives](#)

From today a short film is being shown in cinemas across the country, highlighting possible signs of terrorist activity and explaining what the public can do to help officers.

The 60-second advert, which has already won a number of industry awards, will be on screens before many of the upcoming top-rated movies. It is also available online.

Called 'Look Again', the powerful production shows what sort of behaviour could indicate someone is planning a terrorist attack.

It then explains how members of the public can ACT to [report their concerns online at gov.uk/ACT](https://www.gov.uk/ACT).

Crucially, it stresses not to worry you might be wasting police time.

Head of Counter Terrorism Policing, Assistant Commissioner Neil Basu, says:

One of the key messages of the film is that life has no rewind button. If you report concerns and they turn out to be nothing that's completely fine. But you can't turn the clock back.

It's much better to contact us and let our specially-trained officers make an assessment.

As the film says, reporting won't ruin lives but it could save them.

Look Again is in selected cinemas nationwide from March 6 to April 26, [and available here](#).

[Anyone with concerns about possible terrorist activity can contact police in confidence at gov.uk/ACT.](#)

In an emergency, always call 999.

---

## **[Defence Secretary Ben Wallace gives a speech to the Atlantic Council](#)**

I'm delighted to be back here in the US. I did last come and visit as Security Minister and indeed my parents lived in Pennsylvania for nearly ten years so I'm not a stranger to these streets. And it's a privilege to address the Atlantic Council because it's such a great champion of our Transatlantic relationship.

Your advice has always been insightful, always impartial and always welcome. And you've always managed to gather not just thinkers but doers round the table. People with vision to get things done.

It's a tragic fact that if we managed only half the number of global deaths from conflict by 2030, we would only return to 2010 levels.

Since the beginning of the last decade the number of major violent conflicts has tripled. In 2016 more countries experienced violent conflict than at any time in the previous thirty years.

Displacement and despair are running at significant levels. Security and stability a distant memory for some.

The West took for granted the peace dividend at the end of the Cold War. Treasuries cashed in and our armies consolidated their weapons and formations.

But our adversaries did not do the same. They studied our vulnerabilities, stole our technologies and invested where we did not.

As the Russian Chief of the General Staff, Gerasimov, himself said: "The rules of the game have changed."

Fast forward to today and our adversaries are using proliferation, misinformation and proxies – state and non-state – to extend their interests.

They feed off instability and division, knowing that they have the advantage, often of autocracy and disregard for the international rules-based system. No doubt, they're often amusing themselves as they watch our political and legal systems self-tightening a strait jacket of permissions and authorities that make it hard for us to respond.

To some the solution to this new challenge is isolationism. To focus only on the homeland. To others it is to appease. I've often marvelled at how governments in the West call out China for debt diplomacy in the Third World, but when it's closer to our shores we call it "foreign direct investment".

Why is it when some nations in Europe are every day attacked by Russian cyber state actors, they hide it from their own populations, and instead reach out to Moscow, rather than seeking to change their behaviour?

But not everyone is prepared to ignore the growing threat environment. Ask the people of Ukraine or in Scandinavia how they feel about their neighbour's malign activity. They live with hybrid warfare every day.

Or those countries in the Pacific whose right to freedom of navigation is challenged by China, and who are "punished" for standing up to the regional super power.

I'm here today to say that neither cause, isolationism or appeasement, is the right one to take. There are powerful values-based and global public good arguments why the UK and the US should care about conflict and stability overseas, based on a moral imperative, a force for good, to reduce the loss of life and human suffering and indirectly enable a more prosperous, inclusive, peaceful and sustainable world.

In this evermore transactional time I recognise that these arguments alone aren't always enough to bring over public opinion.

So I want to set out three core arguments why it is in the UK's core interest, and why we in the UK should be prepared to resource it, to address conflict and instability overseas, not only to devote the resources necessary to achieve these goals, but in our hard-headed national interests to do so as well.

The first reason is that conflict threatens UK national security at home and abroad. Strife creates the breeding ground for terrorists and extremists to thrive.

In the lawless spaces that spring from the absence of formal government, nefarious groups opposed to the UK, its allies and its interests are able to grow, feeding off a population's resources and syphoning their supplies of weaponry.

Al Qaeda grew in Afghanistan. ISIS in Syria and Iraq. Boko Haram in Nigeria.

Significantly, a study by the Institute for Economics and Peace found that between 1989 and 2014 less than one per cent of terrorist incidents occurred in countries without either ongoing conflict or some form of political terror.

But conflict also creates the instability that allows our adversaries to pursue their foreign policy aims.

Look, for example, how Iran and Russia are sowing confusion and threatening western interests across the Middle East and North Africa.

Russia is doing the same in Ukraine and the Caucasus.

Meanwhile, war and instability stir up the fog of uncertainty behind which hostile actors – state or non-state – hide and act with impunity.

And, as I know all too well from my days as Security Minister, conflict enables serious organised criminal activity to operate unchecked.

Wars in the Middle East and Africa, the Sahel, West and East Africa have turbocharged the drugs, weapons and people smuggling rings out of Western Asia and North Africa into Europe.

From Afghanistan to Yemen, Somalia to Syria, dangers to UK national security have been exasperated by the chaos of conflict overseas.

What's more, conflict is contagious.

As refugees move from one fragile state to another, so borders become the centre of illegal trade and political systems become strained. Lebanon is on the edge of conflict with potential impacts for regional and European security. Conflict in Somalia threatens the security of over 30,000 UK nationals in Kenya as well as our economic interests, and the interests of our friend and ally Kenya.

And there is a secondary issue too. Refugees and migrants, with no hope of a better life and no prospect of a return to their own homes, are increasingly seeking refuge in the West.

The crisis of 2015 is a reminder of the political instability that follows in their wake alongside the repellent rise of racist political parties, across recipient and transit countries.

So conflict threatens our security directly. But it also reduces our prosperity, damaging economic growth among key potential markets and trading partners, reducing even middle income countries such as Syria, Libya or Venezuela to abject poverty.

The statistics paint a graphic picture. As well as the loss of life, conflict causes an average loss of annual GDP growth of 2-8.4%. It costs a medium-sized developing country the equivalent of 30 years of GDP growth.

Even countries bordering a conflict zone suffer on average a 1.4% decline in

annual GDP. Conflict undermines governance, damages basic services, and adversely affects the availability of natural resources such as oil and strategic minerals.

So Iranian hostile activity in the Gulf creates spikes in the oil price. While turmoil in the DRC restricts the availability of minerals such as cobalt and coltan, essential elements in making everything from hearing aids to mobile phones.

Conflict also provides the perfect conditions for pandemic diseases to emerge and thrive. Ebola sprang up in the DRC, Liberia and Sierra Leone.

The three countries unable to eradicate polio? Afghanistan, Pakistan and Nigeria. Today, we need no reminding how easy it is for disease to rapidly spread out of control.

But, in the long term, conflict breeds conflict, by entrenching grievance and empowering criminals and crime bosses who sometimes become the ruling political classes.

Sixty percent of current conflicts are sequels of previous wars. While some have put the annual cost of conflict at in excess of \$13 trillion.

But that's why my third point is that preventing conflict is one of the main ways a country like the UK can exercise its power for good in the international system. Some remain firmly opposed to particular forms of military intervention.

However, we cannot ignore the value we bring by getting involved when it's in our interests to do so. Not only does it maintain our important engagement with other great powers at the top table, for example, the United Nations Security Council.

But it also helps extend our influence to countries whose political systems are in flux.

By shaping peace settlements and playing our part in post-conflict reconstruction we can provide a moderating influence, helping promote our values and compete with our ideological rivals. This, in turn, enhances our reputation across the world and opens up opportunities to further other UK objectives.

In the past two decades, we've helped tackle Ebola in Sierra Leone, provided vital humanitarian aid in Kosovo, led NATO efforts to stop genocide in parts of former Yugoslavia, supported allies in Oman, in Brunei and in Jordan.

These efforts have had a huge role in enhancing the reputation of the UK around the globe. And the reality is, you can't begin to tackle climate change, or world poverty, or violence against women and girls without addressing the underlying conflicts that make the situations work.

So, having left the European Union, the UK wishes to seize the opportunities that an independent country can have. We are free to trade with who we like



and to join common cause with who we like. But we also remain strongly committed to a world in which the Western values of justice, tolerance and liberty are free to flourish.

We believe that world is in everyone's best interests. We believe those type of values are in the world's best interests.

That's why our contribution to security – whether on the European continent or further afield – remains iron-cast. The security of Europe is vital to the UK's security. That will not change simply because we have left the political union of the European Union.

And of course NATO remains the foundation stone of that security. A proven and unparalleled defensive alliance. Our best means of countering Russian malign activity and hostility. But the United States will always be the indispensable actor in our Alliance.

Now we're immensely grateful for the way the United States have upped the contribution to the Alliance, not least through the Readiness Initiative. And we also got the White House memo that Europe shouldn't take the US for granted, or indeed the US taxpayer for granted. We know that our allies must do more to carry the burden of collective defence.

The UK is certainly doing its bit. We are a vital contributor to NATO's nuclear umbrella. We've made the largest single commitment to the Readiness Initiative. And we are committed to the above 2 per cent of GDP spend on defence. And the Government have said that this Integrated Review will not be cost neutral.

At the same time, we continue to champion NATO transformation and togetherness. Alliance solidarity has kept us safe for more than seventy years. We can't let competitors like Russia divide us. So the more Allies can do to pay their way, the more work we can do to modernise the capabilities, the more we can do to prevent the US from facing challenges on two fronts, the better for us all.

So that's why the UK must reduce, in my view, the 2010 SDSR's over-dependence on US support. Britain will always aim to deploy and fight in all terrains but at times we, and our allies, will need do so without US force protection or ISR capabilities. Not perhaps in high intensity, or peer-to-peer warfare but in counter-terrorism operations or in theatres where we face sometimes more direct threats.

Burden-sharing sometimes means carrying the responsibility of leadership and framework so our allies can focus elsewhere.

Critically, this will be one of the considerations in our Integrated Foreign, Security and Defence Review.

It will ensure that we understand tomorrow's threats as well as today's. It will help cement our status as a forward-looking and outward-reaching nation willing to shoulder responsibility and take the lead where our interests are at stake.

From a defence perspective it will be our guiding light in modernising and shaping our capabilities. Making Defence the spear of Global Britain.

So we intend to carry out a full 360-degree exercise examining what we do and how we do it. My intention is not to pre-judge the outcomes of the review, but we won't just be looking at where NATO and the UK can do more independently, but where the UK can also collaborate more with the US.

Rest assured, we are determined to remain interoperable with our closest ally the United States. We're already working together closely on a vast range of capabilities – from common missile compartments to P8 maritime patrol aircraft. We remain the only Day 1, Tier 1 partner capable of fighting alongside the US in the most contested environments.

The review is working on four main work streams: the Euro-Atlantic Alliance; Great Power Competition; Global Issues and Homeland Security. And it's very important to us in the United Kingdom that our allies contribute to this process. The US, NATO, allies and industry – their views will be vital.

We also need to ask how we can do more to collaborate with the US and Five Eyes to build wider alliance and resilience in areas where we are currently being tested. Our adversaries are constantly probing and damaging us.

From the hybrid dangers emanating from Russia, China and Iran in the grey zone. To the danger our adversaries are posing to us in space. The need for more cyber to protect us in cyberspace, more sigint, more electronic warfare and special operations capabilities will mean we should work even more strongly with the US, pushing back the malign intentions and exposing aggression wherever we find it. None of us can meet the challenge with persistence alone.

Under my leadership, I'm determined that the Ministry of Defence adopts a more campaigning posture, since we must recognise that the threat no longer resides in the official definition of peace and war, but in the constant. Alongside considerations of our defence posture, technology will always be a key feature, and therefore it's going to be the heart of our Integrated Review.

As our adversaries strive to whittle away our leading edge, we need to modernise faster, getting ahead of the curve in everything from space and cyberspace to AI and Big Data. We are still in the early days of the review. There is plenty more to come.

So we have arrived at a critical moment in our nations' history. For more than 100 years, the US and the UK, by standing together in the Great War, the Second World War, and the Cold War, and not to mention many more recent operations against extremism, we have helped freedom and prosperity flourish.

As we enter a new era of conflict, some have questioned why the US and UK should care about the stability of other nations. But with threats multiplying across the globe, and with the past decade witnessing repeated global declines in political rights and civil liberties, our answer to those

sceptics is simple enough.

It remains in our own interests to get involved. If we don't stand up to be counted who will? And if we don't act, what will the consequences be for our people and for the world?