Speech: “You don’t recruit an arsonist to put out a fire. You especially don’t do that when the fire is one they caused.”

Thank you very much Madam President, and thank you for scheduling this meeting today at short notice following the announcements in the United Kingdom yesterday.

When the Council last met on this issue on 18 April, I undertook to update the Council in the light of significant developments. My Prime Minister’s full statement to Parliament has been circulated to the Security Council as document SC2/2018/814. As the British Prime Minister announced yesterday in Parliament, the United Kingdom has reached a significant conclusion in the Salisbury CW investigation. I’ll come to that later if I may, but first, a brief summary of what happened in Salisbury earlier this year.

On Sunday, 4 March, Sergei Skirpal and his daughter Yulia were found unconscious on a bench in the city centre after being poisoned by a Novichok nerve agent. Detective Sergeant Nick Bailey, a Wiltshire police officer, was also seriously ill after having been exposed to a nerve agent. Following this attack, the United Kingdom notified the OPCW, invited them to confirm the identity of the substance involved, and we briefed members of the Security Council.

The OPCW’s independent, expert laboratories confirmed the UK’s identification of the Novichok nerve agent.

Madam President, the Skirpals are thankfully recovering. But on 30 June this year, 44 year-old mother of three Dawn Sturgess fell ill in the nearby town of Amesbury after being exposed to Novichok. She sadly died on 8 July. Her partner, Charlie Rowley was also exposed to the nerve agent and he became seriously ill. Police have identified that Sturgess and Rowley came into contact with a counterfeit perfume bottle which had been discarded in Salisbury. Tests of this bottle following its recovery by police confirmed it contained a significant amount of highly lethal Novichok nerve agent.

On 4 September, the OPCW’s independent, expert laboratories have again confirmed the UK’s identification of the Novichok nerve agent with a very high level of purity and to remind Council members, the very high level of purity means that it will have been made by a state.

The inquiry into the Amesbury incident has now been formally linked by the police with the attempted murder of the Skirpals. The OPCW independent experts have confirmed the identifications as Novichok nerve agent, and it is the exact same chemical that was used in both attacks.

Madam President, it stretches credulity the identification of such nerve agent twice in close proximity to be a coincidence. We have previously shared with the Council the information about the Russian foliant programme from 2000, but to recap briefly, there was a development of Novichok outside the Chemical Weapons Convention and Russian agents were trained in assassination techniques, including the use of such agents on door handles.

Madam President, in the UK, the police are independent of government and they have been conducting a painstaking and forensic investigation. This investigation has involved around 250 detectives who have trawled through more than 11,000 hours of CCTV footage and have taken more than 1,400 statements. Working around the clock, they have carried out painstaking and methodical work to ascertain exactly which individuals were responsible and the methods they used to carry out this attack.

This evidence has been independently reviewed by the Crown Prosecution Service, and they have concluded there is a sufficient basis to bring charges. We have thus independently concluded that there is enough evidence to bring charges against two Russian nationals for the following crimes: the conspiracy to murder Sergei Skirpal; the attempted murder of Sergei and Yulia Skirpal and Detective Sergeant Nick Bailey; the use and possession of Novichok; and causing grievous bodily harm with intent to Yulia Skirpal and Nick Bailey. The investigation into the murder of Dawn Sturgess remains ongoing.

Madam President, the evidence reveals the following. It shows the arrival of two individuals traveling under the names of Alexander Petrov and Ruslan Boshirov who go to the UK from Russia. CCTV and other evidence records their travel to and from Salisbury and crucially, there are images which clearly places them in the vicinity of the Skirpal’s house at 11:58 A.M. on Sunday, 4 March. This was moments before the attack took place, which involved placing the substance on the Skirpal’s front door handle. Madam President, should any Council member wish, we can share copies of those meetings.

Further, testing of the hotel the pair stayed in in London revealed the presence of traces of the Novichok substance in their hotel room.

Based on a thorough analysis of our intelligence, the UK government has concluded that the two individuals named by the police investigation are in fact officers from the Russian Military Intelligence Service, also known as the GRU. This is a body of the Russian state.

Madam President, we previously when we briefed the Council before, attributed responsibility to Russia on the basis of technical means, operational experience – and I recall the case of Litvenenko here – and motive. Russian statements have said that former Russian agents are, if you like, fair game for assassination. These arguments have now been firmly reinforced by the clear evidence of the involvement of identified Russian nationals travelling to the UK from Moscow and returning there on Russian passports. This evidence has been sufficient for our independent prosecuting authorities to bring criminal charges in relation to the Salisbury attack and to issue European arrest warrants.

Madam President, these two individuals are no longer in the United Kingdom. Were they with us, these two suspects within UK jurisdiction would be liable to arrest in a clear basis in law for their attempted murder crimes.

It is clear, Madam President that the Russian state does not permit the extradition of Russian nationals, and I understand that this is a prohibition in the Russian Constitution. So therefore, with respect to these two individuals, we have obtained a European arrest warrant and we will shortly the issue an Interpol red notice. Should either of these individuals ever travel gain outside Russia, we will take every step open to us to detain them, to extradite them, and to bring them to face justice in the United Kingdom.

And we responded at the time to Russian behaviour robustly. The Council will recall that we were joined by 28 partners and NATO in expelling more than 150 Russian intelligence officers. This was a proportionate and direct response to deter and degrade Russia's ability to conduct further operations in the future and to reduce her ability to use the GRU network to cause our citizens harm.

Madam President, we have clear evidence of Russian state involvement in what happened in Salisbury and the use of CW. This is reckless involvement, endangering the lives of many citizens and reckless involvement endangering the universal prohibition on the use of CW.

Madam President, as the Council has discussed before, there is an established pattern of malign Russian behaviour perpetrated by military and intelligence agencies overseas. This was shown in the October 2016 coup attempt in Montenegro, shown in the June 2017 Notpetya a cyber attack which killed an estimated $1.2 billion of damage worldwide, and it has been shown in other cyber attacks.

The GRU has time and again been responsible for Russian interference in other countries' affairs, and most recently, we saw US indictments of GRU individuals in relation to the 2016 Democratic National Committee PAC. Now, in the light of the evidence from Salisbury, we see that GRU activity also encompasses the use of illegal military grade nerve agent on European soil.

Madam President, P5 members bear a particular responsibility to uphold global norms and international law. All the more so where weapons of mass destruction is concerned. One P5 member has not upheld these important norms. One P5 member has undertaken a pattern of behaviour which showed that they tried to murder the Skirpals. They played dice with the lives of the people of Salisbury. They work in a parallel universe where the normal rules of international affairs are inverted. This is a direct challenge, Madam President, to the rules-based international system, which has kept all of us safe, including Russia, since 1945. In the face of such behaviour, the international community needs to continue to defend the laws, norms and institutions that safeguard our citizens against chemical weapons and safeguard them against the threat of hostile, foreign interference. This is why the British Prime Minister yesterday set out the importance of using transparent multilateral mechanisms to identify and hold malign actors to

account.

Allow me to summarize the steps that we believe should now be taken by the international community. We need to work together to strengthen the Chemical Weapons Convention against the use of CW round the world and which we saw most recently, violated on the streets of the United Kingdom.

We need to build further the OPCW's capability to attribute the use of chemical weapons. There can be no place for such incidents as Salisbury again.

We need to shine a light on the use of state agencies to undermine the rule of law and interfere in the domestic lives of other countries' citizens.

And we need to make best use of our established methods, including sanctions, in curbing threats to our societies and our ways of life.

As Theresa May emphasized yesterday, the United Kingdom has no quarrel with the Russian people. We continue to hold out hope that we will once again enjoy a strong partnership with the government of this great nation. We have fought alongside Russian troops in the Second World War. But we will respond robustly when our security is threatened, when the lives of our citizens are endangered, and when the norms and rules of international law and the international system are flouted in such a brazen and reckless manner.

We stand with our partners and allies. We are determined to continue to disrupt together the hostile activities of foreign intelligence networks on our territories. We will uphold the Prohibition of Chemical Weapons. We will protect our citizens and we will defend ourselves from all forms of maligned state activity directed against us and our societies.

Thank you Madam President.

Further Statement by Ambassador Karen Pierce, UK Permanent Representative to the United Nations, at the Security Council briefing on Salisbury

Thank you very much Madam President and thank you to colleagues for their views and for colleagues' expressions of solidarity and support and for colleagues who repeated their revulsion at the use of CW wherever, whenever it occurs.

I just want to make very clear that the United Kingdom shares that position about bolstering the international prohibition on the use of CW.

I was asked a number of questions, Madam President, so with your permission I will respond briefly. I was asked about the investigation. I would just like to recall for colleagues that in the United Kingdom the police are independent of government. The investigation has been independent; the one into the murder of Dawn Sturgess, which is ongoing, is independent. We believe it is methodical and comprehensive.

I was asked about inconsistencies, Madam President, in the evidence identifying the two Russian individuals as Russian GRU operatives. We have

CCTV footage, Madam President. We are happy to share those images with colleagues. To take one instance, the Russian Ambassador mentioned that there was a timestamp in the same corridor for both individuals. I don't know if the Ambassador has been to Gatwick airport. We have been to Gatwick airport. There are multiple identical corridors through which people can go. This is what happened to the two Russians. We are confident, Madam President, in our evidence, and I am very happy to talk to any colleague or indeed any UN member of the General Assembly who has doubts about the evidence is very welcome to come and have a briefing at the British Mission.

I was asked also about cooperation with the Russian authorities. I would like to recall for Council colleagues that when this episode first happened in March, my government went to the Russian authorities and asked for their cooperation. We were given a reply that the request for cooperation was null and void. We would have been happy to collaborate with the Russian authorities at that time. We have indicated our willingness to do so since that point, but in fact what we have seen is a diversion into avenues that are not relevant to this particular case. I think that's a great pity, Madam President.

The Russians have also asked us if they could join the investigation once it was underway. I've said before in this chamber, but I repeat: you don't recruit an arsonist to put out a fire. You especially don't do that when the fire is one they caused.

I was asked about GRU operatives using fake names. The names may be fake, but the crimes are real. The time for lies and discrimination has passed and it is now time for truth and accountability.

We have not assumed that the Russians are guilty. We have done an investigation. The assumption of guilt over innocence may happen in the Russian judicial system, Madam President. It does not happen in the United Kingdom's. But I do think there is an interesting question for the Russian authorities as to whether the GRU operatives were incompetent in what they did to leave traces or whether they were rogue. And I think that's an important angle to think about.

We were accused of not granting consular access to the Skripals. In fact, we did, as I've told the Council; we did, Madam President, pass on the details from the Russian Consulate in London to Yulia Skripal, and it was her wishes that we followed in all subsequent contact. Yulia, I'm glad to say, is making a good recovery. We have had no other thought in our dealings with her than her welfare and her wishes.

Madam President, we are now up to some 37 accounts from Russia as to why and how Salisbury took place. I think none hold water. We believe that the evidence we have presented speaks for itself, but I repeat, I am very happy to give any member of the United Nations who would wish a briefing on that.

I think we need to recall that a woman has died, two people have narrowly escaped death, a whole city was placed at risk and the global non-proliferation CW regime has also been placed at risk. I would hope that the

Russians would respect the Council, engage on the facts and accept the compelling evidence of Russian complicity in this crime.

As regards to the British allegations against Russian over Douma: I think again, Madam president, this shows that for many Russian authorities, they work in a parallel universe where facts and international norms are inverted. We abhor the use of chemical weapons. We take our responsibilities under the Chemical Weapons Convention extremely seriously. We call on the Syrian authorities and the Russian authorities who work with them not to use chemical weapons against their own people, not to repeat Eastern Ghouta and Douma. But as you and our French colleagues and the United Kingdom have made clear, we will uphold our international responsibilities and we will uphold the international commitments and obligations that the international community has laid down.

If I may conclude, Madam President, the world is poorer that Russia, a P5 member, will not join us in doing precisely that to uphold the international order.

Thank you, Madam President.

Speech: My vision for a more tech-driven NHS

All around us, a new generation of technology is changing all of our lives. From the mundane but useful, like the ubiquity of satnavs that stop family arguments and warn us of traffic jams, to the profound and extraordinary, like the ability of genomics to design drugs for each individual.

I started my working life in a tech business. My first job was solving the Millennium Bug in a start-up that takes postcodes and turns them into addresses – you may have used it to speed up your online shopping.

And I've spent most of my Ministerial career driving the proper use of digital technology. From transformation of parts of government technology, to promoting the use of technology across the economy, to legislating to protect us from the new risks it brings, to child safety and privacy.

Now I intend to bring that knowledge and experience, and frankly my unsurpassable enthusiasm for tech to Britain's health and social care system.

It's great to be in the company of so many here who feel the same. So much amazing innovation.

And boy do we need it.

I love the NHS. It's been there for me – as it's been there for us all – at some of the most difficult moments in my life. The NHS has saved the lives of my close family, and has cared for family and friends in their hour of need. I want the best for the NHS, and will do all I can to make that happen. We are increasing the NHS budget by £20 billion by 2023 to 2024, to guarantee the NHS for the long term. But money alone is not enough. We need to make the most of that money.

And the NHS is at the same moment the world's biggest opportunity for saving lives through modern technology, and the world's most frustrating place to work for its IT. The power of genomics plus AI to use the NHS's data to save lives is literally greater than anywhere else on the planet. Yet our hospitals operate dozens of systems each, that don't talk to each other. GPs, social care, pharmacies and community care are on different systems.

Systems crashing is a regular occurrence. In cyber security there have been improvements since WannaCry but this still needs work and board-level attention. The social care system is not at all integrated, when its integration is vital. The NHS is one of the biggest buyers of fax machines on the planet. And it's clunky, clunky, clunky. In many parts of many NHS trusts, workstations have two screens not because they are as cutting edge as a City trading desk but because they have two separate computer systems running side by side. Staff waste hours logging on, transcribing vital clinical data by hand or over the phone, the systems are slow, fail to communicate with each other, fail to reconcile accounts and identities and rely on expensive, out-of-date badly managed contracts with low-grade suppliers that don't understand the core business they're intending to support.

I could go on.

And the net result is not just scarce resources wasted but countless hours of clinical staff spent trying to work broken systems, patients being given sub-optimal care because the systems didn't communicate, and ultimately lives lost.

But bad thought this picture is, it's even worse than this. Much worse. Because the standard against which we should measure the NHS's tech is not just the current systems working better, but the best that technology could offer the NHS. And against this standard we are falling even further behind – the gap between where we could be and where we are is wide and getting wider. Our doctors, nurses, GPs, pharmacists, our patients, should all have easy access to the best tools that technology can give them.

Only then will we know that we are making the most of our wonderful NHS staff, and offering the very best care of the nation.

So it is an immediate priority of mine to sort out the technology of the NHS and social care systems. I really care about this. And today I want to take a moment to set out how we're going to do it.

First, it's worth looking at the history, because there's a reason we're in

this mess.

Like many federated ecosystems, digital technology in the NHS built up in a piecemeal fashion. People started using it to replace existing systems to make their lives easier.

Then as the technology matured, in the early 2000s the senior management decided to try to upgrade NHS IT, and bring it together. This was in vogue and had been done across many organisations. But almost no organisation – bar China's People's Liberation army and Walmart – is as big as the NHS. So despite best efforts, the top-down attempt to impose a new system – and procure a new system – for the whole NHS failed. It failed pretty catastrophically, and millions of pounds were wasted.

The consequence of the failure of the National Programme for IT was for the NHS, its leadership and delivery partners to learn many correct lessons, but also some wrong lessons.

Correct lesson: don't try to build national databases with all the data in one place.

Wrong lesson: don't set national rules to allow databases to talk to each other.

Correct lesson: don't try to procure a new national IT system centrally.

Wrong lesson: let every organisation procure whatever they like locally without any rules on how they are structured.

Much has moved on since the National Programme was canned in 2010. The NHS infrastructure is stronger and moving in the right direction. Local pockets of brilliance shine out. The generic technology itself has moved on a million miles. And we have learned a huge amount about how to deliver cutting-edge tech in very complicated settings with big legacy systems.

I can understand why leadership would shy away from grappling with technology given the history, but we must get back to driving this transformation. We must drive this agenda and you need to know that I've got your back. The biggest risk is not driving digital transformation. The biggest risk is not doing digital transformation. So please hear this one message very clearly – I am not looking for people to blame; I am looking for people to lead. We will together drive this chance. We will make mistakes, and mis-steps. We will learn the right lessons from them and move one. Most importantly, we will move forward with confidence, creativity and determination.

Now is the moment to put the failures of the past behind us, and set our sights on the NHS being the most cutting-edge system in the world for the use of technology to improve our health, make our lives easier, and make money go further, harnessing the amazing explosion of innovation that the connection of billions of minds through digital technology has brought to this world.

There is good work to build on in individual trusts, in Local Health and Care Records, and in the growing HealthTech ecosystem.

We must harness the power of peoples' innovation – in a full spectrum from the most mundane to the most exciting. From basic IT to advanced AI.

And here's how we're going to do it, in six parts.

First: Talk to each other

We know from painful experience that putting data into one big database is bad practice. But likewise, having thousands of databases that don't talk to each other costs lives too.

A world in which we ask an ill patient many times over for their name and address is a problem. A world in which a hospital can't pull up a patient's GP record is downright dangerous.

So our systems need to be able to talk to each other.

We are not going to achieve this by trying to buy one big system for everyone.

But it can be done.

Where it's been successful elsewhere, the centre has imposed strict, mandated, open standards for interoperability of systems. In English: only systems that talk to each other can be used. So this is what we're going to do in the NHS.

And it's already started with the Local Health and Care Record Exemplars which are based on locally-led delivery, joining up data from health and social care, gaining and maintaining trust by bringing along the public and care professionals with attention paid to privacy from the start.

And because it's embedded as part of service transformation and implemented through transformed care pathways, this will ensure that it's useful, usable and used.

We will publish robust standards in the coming weeks that IT systems must meet if they're going to be bought by anyone in the NHS. No system will be allowed to be bought that does not meet these standards. Existing systems will have to be upgraded to meet them. The standards will be simple, setting out the APIs that allow for the right people to interrogate other systems for data. They'll set out the standards of permissions required, and the privacy and cyber security requirements. The standards will be open, so that anyone can see them, and anyone writing code for use in the NHS knows what the standards are before they start.

Standards of interoperability, privacy and security complement each other. It is my profound belief based on half a lifetime's experience that good-quality data management will both improve privacy and security, as well as improve innovation and user experience. Health data is often deeply private, and its privacy and cyber security must be protected. But we don't do that by preventing its use – we do it with clear rules about its use based on consent and strong architecture. The new Data Protection Act, implementing the gold-

standard GDPR into our laws provides the right legal basis for privacy and must be respected in letter and spirit across health and social care.

At the core of interoperability in the health and care system is the patient record. And by an electronic patient record I don't mean an application or a particular company's software. I mean the record – the data.

It's worth stressing this point with an anecdote. Last year my sister suffered a severe head injury. Her life was saved by the ICU at Southmead hospital in Bristol. She spent days in a coma, and over the weeks and months that followed gradually recovered. When she went to her GP, who is a brilliant GP, six months later, to apply to get her driving license back, the GP asked: "But why was it suspended?". Her GP had no information at all about her near-fatal accident or any of the treatment she had received. I wish this was an isolated case. But I've seen in so many other cases just how bad the systems are at talking to each other.

We need to move to a world in which a citizen's patient record can be securely accessed by themselves and staff according to clinical need. There is fantastic work going on. This morning I was at the outstanding Salford Royal where the principles are already in action and the advances are amazing. In my own local West Suffolk I've seen the improvements gather pace. I want to see this and other good practice expanded and accelerated.

And I want to see this acceleration based on broad principles of patients' consent; of strong identity security; of canonical sources to remove duplication; of interoperability not one big database. And perhaps above all, on the principle that it is each one of us as a citizen who ultimately own the data.

We have seen a number of false starts on the use of patient data in the NHS. There are still many scarred by the care.data debacle. But again, we need to learn the right lesson. The wrong lesson would be to leave patient data alone as too much trouble. The right lesson is that we can get this right if we are up front with patients about what we are doing and why. We know that patients will give their consent if they hear from people they trust about the difference that their data could make.

Get the consent right, get the data architecture right, and we can unlock great improvements in patient care.

Is this enough? No.

It's not sufficient. But it is necessary. It's the platform.

Next: buy the right stuff

Mandated standards are just the start. Too often people with too little technical understanding are buying IT from suppliers who want to capture the buyer so they can't ever go elsewhere. Suppliers' interests are too often not aligned with the NHS's interests, and the contracts badly managed. This supplier capture is common in IT, but it is not inevitable. So we are

seriously going to increase the in-house capacity to understand the technology, to procure the right things, to manage them better, to split up big contracts into smaller pieces, to ensure an agile, iterative approach focussed on the question: what is the user need?

This takes a culture change. Out with the big service contracts. In with more agile in-house teams that can be smarter at contracting. I don't want to see any more the automatic knee-jerk response to an IT problem of engaging big consultancies to tell us what the problem is, offer to sell us the solution, and then mark their own homework. Instead we need to build in-house capacity to lead design and delivery, and this will also enable good providers to work more effectively with the NHS, deliver more successfully and operate with less risk.

We've started at the centre, extending the capability of NHS Digital. I know this sort of capacity costs money, so I am today allocating £200 million for the next round of Global Digital Exemplars to help trusts go on this journey.

And I say to suppliers: I've heard some horror stories already. I've been appalled at some of the tales of blockages, especially in providers of systems for primary care. We are going to be extremely robust with any supplier who doesn't live up to the new standards we are mandating. I want all our existing suppliers to come with us on this journey. But if you don't want to come on this journey, you won't be supplying IT to the NHS.

We're going to buy the right stuff.

Third: HealthTech and the cutting edge

Britain has the chance to lead the world on HealthTech. We already have some of the world's best HealthTech companies – Babylon, Touch Surgery, Benevolent AI and hundreds of others are all bringing new innovations to UK patients and further growing the international reputation of our world-leading science and research base. We have exciting research going on across dozens of our universities. And we have the world's biggest health institution. I want to use all of this to build an ecosystem of the best HealthTech in the world.

Moorfield's Eye Hospital has published the results of their work with Deepmind – using AI they are now able to identify over 50 eye diseases with 94% accuracy. It's a step towards revolutionising the way professionals carry out eye tests. In Cambridge, Addenbrooke's have used Microsoft's InnerEye system automatically to mark up scans to assist radiology treatment for prostate cancer patients. These collaborations between the NHS and industry exhibit how the most innovative parts of the health service can work with advanced technology companies to deliver better patient outcomes.

Just as we have curated a world-class ecosystem to make the UK the world leader in FinTech, so we can do the same in HealthTech too. We need a strong environment for enterprise, where innovation is supported. This doesn't happen on its own. We must put in place a framework that allows innovators and technology companies to thrive – to meet user needs – and most importantly to support the uptake and adoption of the best of those services.

We need to work unceasingly to nurture that ecosystem so HealthTech innovators feel supported and can see our commitment to them, and their ground-breaking discoveries.

Building an ecosystem means setting standards, securing access to finance, opening up procurement, deepening the talent pool, and offering the full range of support and collaboration. There's no reason why Britain's HealthTech ecosystem can't be the best in the world, and why the British HealthTech sector cannot contribute massively both to the nation's prosperity and global standing.

Earlier this week Lord O'Shaughnessy launched for consultation our first draft of a Code of Conduct for Data-driven Technologies in Health. We want to work with you and with industry and academia to ensure we are set up to benefit from the extraordinary growth in AI, which has such power to improve care and save lives.

The Code of Conduct is important to ensure that technologies like AI work for us – with ethical standards we are happy with. Across the full spectrum of digital adoption, the open national standards will allow any HealthTech business, small or large, to know what the rules of the road are so their kit can slot straight in.

The standards we set at the centre for privacy, cyber security and data will not only work for us as buyers, but promote innovation by creating clear rules for innovators. We need to tell suppliers and developers what we need and where they can help us – while leaving them as free as possible to provide cutting-edge solutions that meet our standards. And I want local system leaders to recognise how important these standards are in enabling them to deliver local service transformation. This is a board-level issue to get this right.

We need to create the flexibility for local organisations to buy the tech and commodity services they need that meet those standards. They understand the needs of their users best and we must help them be better, more informed customers. We need them to be free to choose from the broadest possible set of choices to meet the needs of their patients and staff.

And we need to recognise that health isn't always different. We must make use of the best technology available to support some of our most basic needs – and not reinvent the wheel for the NHS. We need to use common services that save money, reduce complexity and enable innovation to build on stable and predictable platforms. We need tech as good as we have at home – and there is no reason not to use some of the same devices and software we all use to manage the rest of our lives.

HealthTech isn't just about selling into the NHS; we need to recognise how much happens before the hospital visit or GP appointment. The app that helps a patient to manage their diabetes, the device that measures and celebrates when you go for a run, the gentle reminder to set sleep patterns – the HealthTech ecosystem can support prevention and help us all manage our health like we do our finances. These digital services might send data into the NHS,

but are largely outside of our systems. We need to create the conditions in which they can grow, not only building on our digital economy, but also helping people to prevent the need to see the doctor in the first place.

This ecosystem we will build must reward new approaches and make the rules as clear and simple as possible. We need to make it easy for anyone – software developer in a startup or clinician with a good idea – to see how to get a good idea off the ground, fit within the rules, get into active use, then promulgated across the system.

Fourth: Backing the NHS to succeed

The digital revolution in healthcare cannot rely solely on the innovations of industry. There is a huge role for the NHS to play in developing solutions and co-creating them with industry, recognising the value that trusts bring to the table.

So I'm delighted that the NHS itself is developing cutting-edge innovations.

I can announce that the NHS app will enter private beta this month and be available nationally from the end of the year. I've learnt a lot about app development and can tell you that this one looks really good.

It will be tested across 5 sites, starting in Liverpool and will give patients the ability to book GP appointments, access the NHS 111 service, and view their GP record – enabling them to interact with the NHS the same way they do their bank.

I like it. But more important than me liking it, the design has been led by user testing and user need. Research published by Roche here at Expo shows just how welcome the NHS app will be. More than half of 16-24 year olds asked, said they would actually prefer to receive GP advice online or via an app than face to face. We must respond to this change in expectations. This is just the beginning of the process. Patients who want to will feel the benefits of being able to access services through their fingertips, rather than needing to pick up the phone or physically walk into a GP surgery. It is a big step in making the NHS resemble the rest of the modern world around us.

I love the fact the NHS is doing this. I want to support anyone in the NHS developing new technology that can improve care.

And I also want to reassure those in the room building their own products that we have no intention or desire to close off the market – in fact we want exactly the opposite. We want to back innovations that can improve our NHS, wherever they can be found.

That brings me to part five: a new skillset

To do all this we need the right skills as well as the right tools. We will work to build technical skills in the whole health and care system to help them manage their tech, meet their user needs, articulate those needs better, guide innovators through the rabbit warren and buy the best tech.

This isn’t a blanket or bland call. For most staff the IT they use every day should be easier and meet their user needs, not be an additional burden they need to be extensively trained for.

Like good tech elsewhere, we need technology that makes life easier for hard-working and often over-stretched staff. We need technology that can run basic tasks and processes more efficiently. This will save the NHS money and free up staff time – money and time that can be better used to provide great care.

To those on the front line, frustrated by breathless talk of Artificial Intelligence when all you want is a decent working system: I understand the frustration – and I am determined that we use tech to make things better for you.

In some trusts this is already happening. I’ve seen how Tyne and Wear NHS Foundation Trust, for example, use technology as simple as Skype to make staff lives easier. Other trusts are using instant messaging services – like the CareFlow Connect App at University Hospitals Bristol, which enables staff to quickly and more accurately share information with each other – using their own mobile devices.

There are also many great innovations aimed at improving patient care across settings, like right here in Manchester where the Greater Manchester health and care system is one of our Local Health and Care Record Exemplar programmes. They will ensure that a patient’s data is available when they move between different parts of the health and care system, improving patients’ care and reducing the burden on staff

Or the Care Home Bed State Tool developed by NHS England North, which enables staff to locate available beds in nearby care homes instantly – reducing the need for nursing staff to spend all day on the phone ringing round and freeing up beds in acute settings. I’ve also seen real-time patient tracking devices that use wearable technology to track a patient throughout their stay, making administrative life easier and showing immediately when a bed is empty and needs cleaning following a patient’s discharge from hospital.

We need to equip staff all across the NHS with the right skills to constantly innovate and continuously realise the benefits that technology will provide.

And crucially, we need the skills and capability in management and leadership to build this technology. I want every Trust Board and STP leadership team to drive this, and ensure this transformation happens. Driven only by an enthusiastic IT Department reporting to the CFO it will fail. Owned by the whole organisation, the Board, the Chief Executive, and the clinical leadership, and the opportunities to improve our NHS are huge. And you have the support of the National Leadership of the NHS and the Department of Health and Social Care to make it happen.

And as technology develops, and as that breathless talk about AI turns into effective systems and tools, I want our staff to be able to use them with confidence, in the knowledge that they will be able to do their job better as a result, rather than fear them as impenetrable technologies that will put

them out of a job altogether.

I want to embed these skills right across the NHS and social care. And I want to hear from you about it too.

And this brings me to my final point: culture change

The truth is, it is not the technology that is holding us back. Just being able to make the best use of technology that has already been invented would transform health and care in this country. In all my experience of digital transformation it's no different. Only 10% of the challenge is the tech. 90% of the challenge is the culture.

To make the changes that are needed we must work together and have a common vision. We need to couple this with an agile culture where we constantly improve systems and champion the innovators.

We, at the centre, must support them by creating the environment where technology can deliver and continue to deliver against ever-changing needs.

We need to stop the narrative that it's too difficult to do it right in health and care.

The culture of adoption has to change too for this digital age. The culture of the NHS is understandably that clinical trials take time so we should adopt new ideas only once robustly and repeatedly tested. Yet a new generation of technology has arrived that can be rapidly adopted, rapidly assessed, and rapidly iterated. Of course, all this must be based on evidence: something isn't good simply because it's "new". It's good, because it works. But evidence needn't be expensive: we must also use the power of data, and software, to make it easier for innovators to assess the impact of their tools on real-world outcomes, in real-world data. We must ensure that our staff have the skills to assess that evidence, to work proportionately, and decide what level of evidence is required for each procurement choice, each clinical decision. This is how we maintain tempo, and incentivise innovation: by ensuring that evidence is generated swiftly, and used thoughtfully. By adopting new technology that works, while swiftly disinvesting from those tools and processes that fail to show benefit. Adopt. Iterate. Improve.

The culture change we need to see requires strong management and leadership. I'm determined to grow stronger leadership across the NHS. We should train more of our own, yes, and bring in more talent from the outside too who know how to inspire change. And we are starting this at the top. I am creating a HealthTech Advisory Board which I'm delighted will be chaired by Dr Ben Goldacre, reporting directly to me, consisting of tech experts, clinicians and academics, and, as in the case of Ben, people who combine that holy trinity 3 in 1. It will highlight where change needs to happen, where best practice isn't being followed, and be an ideas hub for how we transform the NHS to improve patient outcomes, patient experience, and to make the lives of NHS staff easier.

I know that many of you have been crying out for these changes. I have heard this over and over in the weeks and months since I became Secretary of State for Health and Social Care.

I know there are many brilliant people trying to do the right thing and I will back you. And I say to health and social care leaders: I expect every board in the health and care system, to grapple with this agenda and back the people doing the transformation. I am determined to make this happen – for the sake of the millions of you who work in health and social care. For the 50 million people in this country who rely on you in their hour of need.

To help in our mission to guarantee the NHS for the long term, to make the NHS the best it can be.

So let us work together to put the best technology on the planet to work.

News story: LLWR's largest logistics project for 5 years saves valuable space at Repository

A partnership between LLW Repository Ltd (LLWR), Cyclife and Magnox is leading to the recycling of over 800 tonnes of metal from the Chapelcross site, near Annan – and preserving valuable capacity at the Repository.

Around 30 consignments that otherwise would have been destined for LLWR have been sent to a Cyclife facility in Sweden, where 95% of the material will be recycled.

LLWR managed the transportation of steel to the North East for shipping in its largest logistical operation since the movement of the Berkeley Boilers five years ago.

The latest operation involved 16 road movements over 10 days, two escorted 40 metres long trailers travelling in convoy from Chapelcross to the Cyclife Metals Recycling Facility at Lillyhall where the steel was prepared for shipping.

Lane restrictions on the A66 meant the trailers were diverted through the Cumbrian village of Greystoke, but extensive stakeholder engagement, including leaflet drops giving advance notice of the abnormal loads, and liaison with statutory consultees and local authorities, ensured the transports passed off without major incident.

Dave Rossiter, Head of Waste Management Services at LLWR, said: "It was a challenge for our team because of the size of the components and the

logistical planning we had to incorporate, as well as the unexpected roadworks, but they performed well.

“We’ve built on the experience gained in previous projects such as the Berkeley Boilers and other complex logistical projects.”

The £23 million three year decommissioning project to remove the top section of each of the sixteen, 100 feet tall, heat exchangers at Chapelcross has taken the site another step towards closure and dramatically changed the local skyline.

Under the landmark Berkeley Boilers project, 15 redundant 300 tonne boilers, each 22m long, were transported four miles through Berkeley town centre and on to the coast for shipping to Sweden.

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News story: Family firm grasps online shopping boom to boost jobs

- Business Secretary Greg Clark today opened a new distribution centre for a Midlands firm that has provided jobs for generations
- Derbyshire-based logistics business ATL has doubled in size over 5 years by capitalising on the demand for warehouse space and logistics created by the online shopping boom
- new state-of-the-art distribution centre will support a further 50 jobs in the Midlands Engine as company enters its seventh decade

Business Secretary Greg Clark celebrated generations of entrepreneurial spirit as he opened a new state-of-the-art distribution centre and office in the Midlands today (Thursday 6 September).

Derbyshire-based logistics business ATL is a firm that has seized on the growing popularity of online shopping that has seen demand for warehouse space surging over the past decade.

ATL has supported jobs in the area for 60 years since its formation in 1959 and today has a workforce of around 220 people. In the past 5 years alone, the company doubled in size and its new 190,000 square foot centre will double the businesses capacity to 32,000 pallets and support 50 further jobs – another showcase for the economic success of the Midlands Engine.

The Business Secretary was among more than 100 local dignitaries invited to celebrate the occasion. He said:

> The Midlands is vital to the UK economy and home to some of our most iconic and productive businesses. It is a place with unique strengths and this government is committed through our modern

> Industrial Strategy to making it an even better place to live, work, study and do business, improving opportunities and quality of life for the people of the region.
>
> ATL is a brilliant example of the entrepreneurial spirit that exists in the region and has a proud history as a business run by the same family for 60 years, consistently delivering good jobs in the area while evolving and adapting over decades to ensure it continues to thrive.

ATL Managing Director Jon Ward said:

> It's fantastic to be able to showcase 'ATL Midlands Hub' along with those people who helped to make this happen and we've worked with on this journey.
>
> The Ascott family have done a brilliant job in developing ATL from a local haulier into the thriving business it is today and they should be very proud of what they've achieved.

Property research firm CBRE estimates the growing popularity of online shopping has contributed to a near doubling in demand for warehouse space over the past 10 years. Approximately 235 million square feet of warehouse space was leased or purchased between 2007 and March 2018 – equivalent to more than 3,000 Wembley Stadiums.

ATL, which has a fleet of 90 vehicles and 150 trailers, has been based at Foston since 2002, after moving from Burton. At the time of the move, the company, run by joint managing directors brothers Pete and Joey Ascott, employed 15 people.

The Midlands Engine Strategy (March 2017) set out how central government will work with local partners to tackle local productivity barriers. The Midlands will benefit from:

- an additional £20 million for the Midlands Skills Challenge
- £4 million to support the Midlands Engine Partnership to deepen their excellent work and drive growth across the Midlands

The Strategy also confirmed the funding awarded to specific projects from £392 million allocated to the Midlands from the Local Growth Fund.