

How we got here: lessons from the UK vaccine rollout

Over the last 18 months, faced with the greatest threat to public health in a lifetime, and with a pandemic of a scale not seen before in living memory, we've all battled as a society to get and keep COVID-19 under control. And that battle remains today.

We've faced the greatest challenges in peacetime, and the trade-offs between the most intrusive invasions of people's personal and economic lives, set against the need to protect life itself.

And with this extraordinary challenge faced by the whole of humanity, science held out one great hope.

And that hope is vaccination.

It's fitting that we're here at the Jenner Institute, here in Oxford, today at the start of this G7 health meeting.

Because it was Edward Jenner who first conceived of vaccination as the science of training the body's immune system and training the body's innate ability to fight disease, so immunity can come without the suffering of that disease.

Vaccination has saved more lives, and prevented more misery, than any other scientific endeavour.

Just stop for a minute.

Imagine a world without vaccines.

Imagine smallpox and measles running rife.

Imagine where we'd be now today without a vaccine against COVID-19.

Today, I want to reflect on this life-saving endeavour and give my perspective on how we've got this far.

The UK vaccination effort has without doubt been the best programme I've ever been involved with – it's been an honour. And I want to set out my thoughts on why, and why in this country we've managed to make the progress that we have.

Of course, this isn't over until it's over everywhere.

And while today I'll concentrate on the UK and the rollout here, for which I'm responsible, we must also play our part in the global vaccination rollout and I'll come onto the role we're playing in that too.

I'm very proud of how we were able to deploy the first ever clinically approved COVID vaccine and delivered 60 million doses of 3 different vaccines into 39 million arms.

As of midnight last night, I can confirm we've now given a first dose to three quarters of the adult population of the United Kingdom.

Lots of people stop me and ask me how we did all this.

So I thought I'd set it out as I see it.

I believe that the UK's vaccine success story is not an accident.

It was a result of the approach we took, decisions we made and decisions that we made before.

And I want to look both at what worked and also what didn't work.

Because one thing I've noticed in government is that when a something goes well, people often think everything went well. And it didn't...

I want to take a step back and reflect on this extraordinary project, the extraordinary team – the vaccine heroes as I call them – and the extraordinary response of the public.

Because ultimately this is a project that everybody's a part of.

Lots of people who have been involved in the programme have set out the thing they thought and they think is important to make the progress we have.

But the truth is it wasn't one thing. We had to get lots of things right.

For me, there are 4 lessons that I think we can take forward and I'd like to take a bit of time to go through them today.

Start early

The first lesson is to start early.

As soon as we started responding to this crisis, we knew that a vaccine would be the best long-term way out.

Even before the first COVID case arrived in the UK we'd started the work on how to develop and buy the vaccines that would ultimately make us safe.

I vividly remember the first meeting that we had about a potential vaccine in January 2020.

It was before COVID was even called COVID.

And it was just after we'd cracked the genomic sequence of the virus.

I was told in that meeting that a vaccine had never been developed against any human coronavirus.

That it would take at least 5 years to develop in normal times and that a vaccine may never work.

But this was too important to fail.

The attitude I had at that point was that the benefit of a vaccine would be so big that all the resources of the land should be at the disposal of the vaccines team. I hope that's how it felt to you.

I specifically remember, a then meek and somewhat timid professor turning to me when I asked how fast this could possibly be done.

And he said that if everything went right, then the very best we could hope for would be 12 to 18 months.

Who would have thought that just 11 months later, we'd be the first country in the world with a clinically authorised vaccine.

And that Professor, Professor Jonathan Van-Tam, would be turning down Strictly.

JVT also is one of the heroes of the vaccine programme, and we'll be meeting a few more later.

The team that made this happen dared to believe, and we set to work to turn that belief into reality.

So, we started early.

We put out a call for research in February.

By March, we were supporting 6 different projects including the Oxford vaccine of course, alongside the vital work on treatments, including the RECOVERY trial which led to the discovery of dexamethasone, the first proven treatment to reduce coronavirus mortality.

And these 2 projects alone, both out of Oxford in a large part, have already saved over a million lives globally.

We asked the early questions.

We had to be creative because nobody had done this before.

I remember asking, 'What will we regret not doing if we don't do it now?'

And the answers came back, legions of answers: we'll need freezers, syringes, glass vials; we'll need the best infrastructure for clinical trials; we'll need a supply chain, manufacturing and a massive deployment operation.

We knew that every day we took off the critical path to delivery meant thousands of lives, and billions of pounds, saved.

I was often told it was unlikely we'd get a vaccine until well into 2021.

But I knew that if everything went right we needed to be ready for deployment too and ready for early deployment.

People called me an optimist or worse.

And yes I'm an unapologetic optimist, but I'm a rational optimist.

In this project, we had to be interested in the Reasonable Worst Case Scenario, but we had to be interested in the Reasonable Best Case Scenario too because that threw up its own challenges.

Because if a vaccine came through within 12 months, we needed to be ready to deploy it into people's arms.

And I always believed that we could, especially with the power of the NHS.

There's another, often under-acknowledged, piece of work we started early too.

Which is about building trust.

All the procurement and logistics and science would have been for nothing if we couldn't build trust in the vaccine, and get people to come forward and roll up their sleeves.

But Britain's incredibly high levels of confidence around the vaccine aren't an accident, and weren't something we could take for granted.

We had to win trust.

Trust is a crucial component of any major project, and the way to win trust is through openness and honesty.

Being open about what we know and also about what we don't know.

So for instance we were up-front from the start that there would be side effects and that we'd have to manage them.

We levelled with people that vaccine supply is often lumpy, and so volumes would differ week on week.

And we were honest about the uncertainties, for instance that it'd take time to discover what impact new variants might have on any vaccine.

It's not easy to stand at a podium and say that there are questions we cannot yet answer.

Communicating uncertainty is hard, and no-one had ever faced anything like this.

Because this was a novel disease, about which we knew little and were – are – learning all the time.

The public get this.

So in my view the greatest respect you can give people is to give them the full picture, warts and all, right from the first moment.

I think this has paid off.

Vaccine confidence and, crucially, uptake rates in the UK are among the highest in the world, and I'm very proud of that fact.

We started early too on how we could make access to the vaccine fair.

Now I know there were a few eyebrows raised when I said that the film 'Contagion' shaped my thinking about our vaccine programme.

I should reassure Sir John Bell that it wasn't my primary source of advice, but when I watched the film a penny did drop for me.

Not just that a vaccine would be our way out the pandemic, but that the power of the vaccine would be so great, we would have to think very hard about who to protect and in what order.

I knew that some of the most difficult moments of the pandemic would not be before the vaccine was approved, but afterwards, when the scramble for vaccines had begun.

Now we Brits love queueing. And there's nothing more upsetting than someone jumping the queue.

So, again, we started planning early to make sure this was fair. And spent time preparing for how to organise the rollout in as fair a way as possible.

The clinically advised prioritisation for getting vaccines in arms has been critical to, I believe, securing trust in the programme overall.

Because it has helped demonstrate that the system is fair.

So we acted early to reassure people that in the finest tradition of the values of the NHS, vaccines would be given according to need, not ability to pay.

Whether you're the Prime Minister or a Premier League footballer, or the future King of England, you'd have to wait your turn, just like everyone else.

Some people thought that it was strange that I didn't get the vaccine right at the start of the programme – and in fact, I was criticised for this on the grounds that would help to boost confidence, and, yes, we did have to boost confidence, but we also had to build confidence the vaccine programme was fair.

So I waited my turn with everyone else.

Together with the JCVI, who under the leadership of Professor Wei Shen Lim, did so much to promote confidence in our vaccination programme, we announced

back in August how we'd prioritise our rollout, months before we even knew if a vaccine would work.

And making clear that we'd prioritise the most vulnerable, like frontline health and care colleagues and residents in our care homes, and proceeding on an age basis because that is how the disease strikes.

We made sure everyone understood where in the queue they'd be, and crucially why we were put in that order, so we could protect the people most in need of protection.

And therefore save as many lives as possible. So the first lesson for me is to start early.

Draw on your strengths

The second lesson is that at a time of crisis you must draw on your strengths.

In some areas of our pandemic response, we didn't have great strengths to start with.

And in vaccines, we had some significant gaps too, like the capacity to manufacture on-shore or enough people to deploy the vaccine at such scale.

But we had, and have, some serious strengths too, and we've relied on them as much as we possibly could and we've put weight on these great strengths that we have as a country.

First, we have a universal healthcare system with a trusted brand in the NHS.

The NHS, under the steadfast leadership of Sir Simon Stevens who has done a remarkable role in this pandemic, has performed with distinction, and it has deserved every plaudit that has come its way.

Without this common, trusted health system across the UK, and its universal nature embedded in every community in the land, and its experience of running the flu vaccine programme every year, which delivers typically 15 million doses, we couldn't have delivered such a rapid and efficient rollout.

And of course in Oxford we couldn't have delivered such a rapid and a powerful response without our scientific strength.

And this scientific strength we must remember has been built up over centuries, and the reason why the UK has this great scientific capability is not because of recent decisions but consistent decisions over years and years and years.

This strength is built over generations, and we must always invest in it.

In 2015, for instance, we set up the UK Vaccines Network, chaired by Professor Chris Whitty, in response to the ebola pandemic in West Africa, to invest in developing vaccines against unknown future threats.

Thanks to this work, we invested in a candidate for MERS, which was adapted to become the underlying technology for the Oxford vaccine.

The lesson from this is you need a broad range of research, because you never know which bit of science is going to save you next time.

We had the infrastructure on which to build some of the most successful clinical trials for COVID-19.

Not only because we're home to some of the best universities, and the best researchers, but because we did everything in our power to support clinical trials in the funding of the NIHR, another team of vaccine heroes, and of course the NHS, and we chose not to pre-judge their outcomes no matter how tempting that was at the time.

Backing clinical trials isn't empty rhetoric, I know this for myself. The pressures to end trials early before they properly readout is intense in the heat of a crisis.

But we didn't – we backed the science.

We built on what we'd learnt from the RECOVERY trial; in July, we created the Vaccine Research Registry, a register of people who were ready and willing to take part in the large scale clinical trials for COVID-19 vaccines.

Over 500,000 people have signed up on the NHS website, which I think frankly is amazing.

This is half a million people remember who are willing to take an unknown vaccine in order to save other people's lives.

Many vaccine manufacturers have told us that they found this registry invaluable in allowing rapid recruitment for clinical trials, and so overall we tried to promote a supportive environment that means that the majority of vaccine candidates including Oxford, Valneva and Novavax have been trialled here in the UK.

This shows the prize when you get the research right and you double-down on those strengths.

And I'd like to pay tribute here to another vaccine hero, Professor Chris Whitty, because he has been involved in this drive since before the start and he has driven the research programme that has saved lives right across the world.

Another team who are vaccine heroes are our first-rate regulators. Throughout this crisis, the MHRA, under the brilliant stewardship of Dr June Raine, has excelled, and been a global model for how to regulate. And in fact Andrew Pollard was taking me around the Oxford science labs earlier today and explaining, each time he mentioned the regulator, our regulator is dynamic and flexible and helps science to proceed.

They're everything a Health Secretary could want.

They're rigorously independent, they don't waver when it comes to upholding strong standards, and they're out there in public, as a trusted voice to respond to concerns.

They're also agile and responsive, and from the get-go they committed to me that they'd do everything in their power to remove barriers on the critical path.

I remember June Raine saying to me at the start of this pandemic that 'we'll go as fast as we safely can, Matt'.

And that's exactly what they've done, with an emphasis on fast and safe.

In short, the MHRA regulates for safety, not bureaucracy.

For example, they invented a process so they could look at clinical trial data through a rolling review as the trials went on, rather than waiting for a final submission of a package of data at the end which takes months off the critical path for regulatory approval without compromising on scrutiny.

The lesson I take away from this is that the quality of our regulators gives the UK a real competitive advantage, and saves lives.

The MHRA has shown how innovation and regulation are not mutually exclusive.

And I know that regulators all around the world are looking to learn from the MHRA, and the pivotal part they played in our response.

One other of our greatest strengths I want to touch on is the strength of our Union.

Just as we're adopting a UK-wide approach to expanding testing capacity and procuring PPE for every corner of the UK, this vaccination programme is for the whole UK.

We negotiated and bought vaccines for the whole country.

We allocated them according to need.

We worked with the NHS, with devolved administrations, with local councils everywhere.

And we called upon the logistical heft of the British Armed Forces to get them in arms.

Again, this did not happen by accident.

The devolved administrations are, of course, run by different political parties.

And although health is devolved, the virus doesn't respect administrative boundaries.

So I was determined to overcome political differences so we could deliver for

citizens, wherever they lived, across the country.

Like everyone, I've come to love Zoom.

But it wasn't easy getting this UK-wide approach.

Right at the start of last March, before we entered lockdown, I decided I had to go and see each of the devolved health ministers face-to-face.

It was so important that we all got on the same page about the importance of this project.

So, although life was pretty hectic last March, I took 24 hours to fly to Edinburgh, to Belfast, to Cardiff to sit down with each health minister.

That 24 hours has proved to be invaluable in strengthening those relationships, and it's been one of the most useful 24 hours in the pandemic.

I have led a call every week since with the 4 of us.

And, frankly, it's sometimes been a bit like group therapy.

The importance of the Union has never been clearer than in the UK vaccination effort.

England, Scotland, Wales and Northern Ireland drew on our collective scale, and our collective strengths, to deliver one collective vaccination programme.

It's only because we worked collectively like this together as one United Kingdom that we were able to pull this off for everyone from Scilly to Shetland.

The Union has saved lives, and we're safer across the whole country as a result.

Take and manage risks

And this takes me onto the third lesson, which is about risk. Risk taking doesn't always come naturally to the public sector. In my view, the biggest risk would have been the failure to find a vaccine at all.

So we explicitly embraced risk early on.

So while I believed this project would succeed, I knew no-one could do it on their own.

And we needed to build a culture that embraced and managed risk rather than shying away from it. A culture that sought forgiveness, not permission. And empowered people to take the call rather than back off making a decision.

I think this is a lesson for any organisation – public or private, large or small.

This doesn't mean being rash. It means being brave, using judgement, and the best possible data to drive decision making.

This wasn't like buying any other commodity product.

We couldn't just pick up the phone and place an order.

So we had to back lots of horses and invested at risk.

But as Vince Lombardi, one of the greatest ever American football coaches, said: 'You miss 100 per cent of the shots that you don't take.'

And so we took plenty of shots, with the unwavering backing of the Chancellor and the Prime Minister. We put hundreds of millions of pounds at risk.

And not all of them came off. Some are still in early trials and are far away from deployment.

But the important thing is that some of the risks did come off.

We didn't just take the risks. We then managed them.

And instead of sitting back and waiting to see which vaccines succeeded, we were tenacious in helping them to get over the line, drawing on the abundant industry experience in our team.

We offered funding for the early manufacture of the vaccines, before we knew whether they would work.

We backed manufacturing plants as well to try and put right the problem of not having enough on-shore manufacturing in the UK. Like funding the Valneva facility in Livingston and sending a team to help the Halix plant in the Netherlands to scale up.

And we helped to bring together Oxford University and AstraZeneca and bring them to the table, in a partnership which has been a lifeline, not just here, but also right across the developing world.

As we're here in Oxford today, I just wanted to say a few words about the global impact of the work taking place here.

The Oxford vaccine, developed by brilliant science here in Oxford, linked with AstraZeneca's industrial might, backed by the support of the UK Government, all coming together to invest in this vaccine and together make it available at cost, this is in my view the greatest gift that this nation could have given the world during this pandemic.

A vaccine that's available at cost, with no charge for intellectual property.

And that because it can be stored simply, offers hope for the developing world.

So, as well as the money that we've donated – like giving over half a billion pounds to COVAX, which has now shipped 80 million doses to 125 countries and

territories – we've also given the world the vaccine which makes up 96 per cent of the COVAX programme so far.

And as of today, I can confirm over half a billion doses of the Oxford/AstraZeneca vaccine have now been released for supply globally, the majority of them in lower and middle income countries.

So thank you to Oxford University, the team here, Louise, Sir John, Andrew Pollard, Sarah Gilbert, and everyone here at Oxford and everyone at AstraZeneca, Pascal and his whole team, should be incredibly proud of the sheer scale of that achievement, delivering half a billion doses across the world.

But it ain't over yet.

This project was never just about investing in a vaccine for the UK. It is about a vaccine for the whole world.

As the global debate, including here at the G7, increasingly turns to how to vaccinate the whole world, I passionately believe that the single biggest contribution we can make is this vaccine, safe and effective, and at cost. I'm delighted too that Pfizer said they will deliver at cost to low income countries and pay tribute to Albert Bourla for that decision.

Right here at the Jenner, the holy trinity of academia, industry and government came together to invest in the research, and to develop and deliver a vaccine.

And we should all be so proud that this vaccine has now been delivered in 168 different countries across the world.

This was a true partnership, and where we worked together as partners we succeed because we asked people what we they could do to support them in our shared mission.

But there's still more to do, our work isn't over yet.

We're still procuring all the time, and planning what we need to keep our country safe for the long-term, including new vaccines specifically targeted at variants of concern.

I can tell you all today that we've started commercial negotiations with AstraZeneca to secure a variant vaccine: future supplies of the Oxford/AstraZeneca vaccine that have been adapted to tackle the B.1.351 variant first identified in South Africa.

Once again, we're leading the way and backing projects with potential, so we can keep our vaccination programme one step ahead of the virus, and protect the progress we've all made.

Back the team

The fourth lesson I want to touch on is that we worked together as a big, diverse, yet cohesive team.

Frankly it's the finest team that I've ever been involved in.

On the 2nd December, when the MHRA authorised the Pfizer vaccine, and all eyes turned to our rollout, I knew deep down that everything would be OK.

And I knew that because I knew I could rely on the team.

Thanks to the forensic preparations we'd made, we were ready to put vaccines in arms.

And just 6 days later start a rollout that had been months in the planning.

It was an incredibly emotional moment, seeing the first vaccine in the world being given.

And I know so many people feel the same about their job.

This isn't just an important project and a scientific project, it's an emotional project as well.

Whenever I visit vaccination centres I see what this vaccine means to people.

I've seen the cakes and cards that the staff give and the smiles on people's faces.

I've felt the pride of the volunteers, who do so much and a year ago could never have dreamed they'd be putting jabs in arms, and are now fully trained up as an essential part of our team.

And I've witnessed the joy, the joy and the gratitude of the people who've been shielding for months on end, and now know they now have the chance to live the life they used to live it, as they want to live it.

The success of this programme can't just be measured in terms of charts and spreadsheets.

Our vaccination programme has given people hope for the future, and confidence that we can eventually put this pandemic behind us.

And I'm so proud of everybody involved.

The local authorities, the GPs, NHS colleagues, the armed forces, all the volunteers including St John Ambulance, and many, many others who stepped up in the delivery, as well as the scientists and industrialists who have made it happen.

A major reason for our success was because we'd brought in the right people, but crucially with the right mindset, and we weren't ideological about where

they came from.

We were prepared to work with anyone, as long as they shared our mission.

And we opened our doors to everyone who could help.

I just want to draw out one particular insight I got from this. The old argument that's sometimes been made, that only the public sector can act in the public good, and so there's no place for the private sector in public health.

That argument has been shown to be completely false.

Even though we were embarking on a big and complex project, we knew we needed the soul of a start-up, albeit one with 66 million customers in the first instance.

We had to move fast, embrace change and learn quickly from our mistakes.

And take some of the risks that I've been talking about.

We had to bring the best people to the table, focussing not on where they come from, but on what they could offer.

And of course our Vaccines Taskforce symbolised this, and I want to say a word about Vaccines Taskforce.

Last April, with Sir Patrick Vallance, whose scientific and industry expertise was invaluable to our response, with Sir Patrick we worked to pull together a team with all the different disciplines that were needed, in one place, with one mission.

The idea was that the Vaccines Taskforce combined academic excellence and rigour with private sector entrepreneurial drive and civil service grip – meaning we could draw on all the skills, and contacts, we needed to make it happen.

It was a true centre of excellence, and we couldn't have done it without them, and the brilliant people that were there and many who are still there driving our effort today.

Like the supply chain and logistical know-how of Ruth Todd; the commercial acumen of Maddy McTernan; the project management of Nick Elliot, and his ability to make the complex things seem simple; the unrivalled problem solving ability of Ian Mcubbin; the scientific expertise of Clive Dix.

And of course the inspirational leadership of Kate Bingham.

I clearly remember calling Kate to ask her to take the job of Chair. And I said, 'Kate, there is nothing more important in the country right now than getting this right.'

And I was confident that she had what it took to drive this forward, and meld

the best possible team.

And it's this diverse team, diverse in background and perspectives, and it helped create one of the most diverse vaccine portfolios in the world.

Because we didn't put all our eggs in one basket.

We backed many different technologies according to how good we thought they'd be.

And we didn't just back British, but we bought vaccines from all around the world.

It is impossible to give a speech like this without saying a huge thank you to everybody at the Vaccines Taskforce.

The final point I want to make is this.

Another crucial factor in melding the team was it was mission driven.

A common mission galvanises teamwork, co-operation and action to deliver results.

Four years ago, a professor of management from Wharton Business School published an academic study looking at the success of Kennedy's space programme and why – and I quote – why 'many employees said during that period they were involved in more meaningful work than they had ever experienced before and would ever experience again'.

He found that in a 400,000-strong team, 'even people who were quite far removed from the famous goal of landing a man on the moon reported feeling an incredible connection to this ultimate goal'.

He noticed that because everyone had a concrete goal to work towards and, crucially, understood the part they played in helping, in this case NASA, achieve it.

They saw their work not as a task or short-term thing they had to do, but pursuit of a long-term goal.

This insight is especially important when fighting a pandemic.

When you're facing something no-one's ever faced before, when social distancing means physical separation, and when much of our response was being co-ordinated from kitchens and living rooms and bedrooms across the land, the risk of people feeling isolated or disconnected was greater than ever so you had to meld the team.

So, we cast aside lofty and imprecise objectives and mission statements and just gave ourselves a series of big hairy audacious goals.

Just as Kennedy narrowed NASA's open-ended goals to concentrate on one objective, 'landing a man on the moon and returning him safely to the Earth',

we set the goal to have a vaccine deployed by Christmas.

We would secure vaccines for the UK.

We would help secure vaccines for the whole world.

And we would make the UK better prepared for future pandemics.

We started with that outcome, that mission we needed to achieve, and worked from there.

And we were able to block out the noise, and focus on what needed to be done.

And everybody knew their role and crucially everybody mattered.

This was not a project where you could artfully pass the baton from one stage to the next.

As JVT put it in his own inimitable way, 'We had lots of witches stirring the pot at the same time.'

So we needed clear accountability for who was doing what – clearly defined roles and responsibilities – so everyone understood their roles, and so people didn't get in each other's way.

And it worked.

The NIHR trialled, the VTF procured, the NHS deployed, and of course ministers had overarching accountability for decision making.

And critically – and critically for government, this is a really important lesson – we gave people the space and the authority to deliver.

Authority was delegated to the lowest possible level, and we empowered people with the confidence to make decisions themselves.

Take for instance the brilliant operational leadership from Emily Lawson, and appointing Nadhim Zahawi as Minister for Deployment, bringing to bear his commercial experience, making sure a single person at ministerial level was there 24/7 to take decisions and unblock things.

And within our wider team, we were blessed to have people with experience of running massive vaccination plans every year.

Some of the best scientific brains and people with experience of working on major commercial contracts.

I saw my role as allowing people to make the best use of their expertise, protecting them from interference and creating the right conditions for them to do their job.

Encouraging them to make the best choices, not sending down rigid edicts from on high.

The team who worked on our vaccination programme was the single greatest asset that we had.

We had the right people in the right roles at the right time, giving us the expertise and the energy we needed to make this programme a success and all tied to one mission.

And I'm so grateful to every single one of them involved.

Taking this forward

These are the lessons I draw from the success of the vaccine programme.

Start early.

Draw on your strengths.

Take and manage risks.

Back the team.

And if you ask me the one thing that draws this all together, it's positivity.

We were positive in our planning, setting big goals that we knew would stretch us.

We created a positive team, with can-do culture and an attitude that when things went wrong the question wasn't who to blame but how can we fix it.

And we promoted positivity about getting the vaccine to protect yourself, your loved ones and local community.

I'm sure there are many, many more lessons, and I hope everyone involved should tell their story too.

There was no one single reason why this programme has been so far such a success.

No single solution.

Success has been the result of so many people, from so many walks of life, stepping up at a time of adversity to thwart this virus, save lives, and get us on the road to recovery.

Conclusion

Now, we must need to draw on what we've achieved together, and the way we've forged a path for others all around the world, and take forward the lessons we've learnt, to finish our fight against this virus, and face with confidence the challenges ahead.

Defence Procurement Minister RUSI Land Warfare Conference 2021

I know it has been an endlessly fascinating day – to use your words – and certainly busy, and I sincerely hope a useful day and I want to begin by thanking RUSI and CGS for hosting this important event on behalf of those online, as I was this morning, and those of us in person at Church House. This building played a vital parliamentary role in the Second World War. Among many actions first relayed here was Churchill's announcement of the sinking of the Bismark.

The place is rich in the history of a past conflict but as we've been reminded during the course of the day, the character of warfare continues, of course, to constantly change.

Yes, the nature of war remains constant – a visceral and human activity, the 'contest of wills' – but the characteristics that we have discussed here today are undergoing changes of the most profound significance. Speed and Adaptability must be our mantra as we approach the new challenges that we face.

It is vital that we in this room help inform those outside of the pace of change and how the threat is evolving. Now I have to share with you, that rather alarmingly, whilst on-line this morning, I misheard CGS, I thought I heard him say that we live in an era of 'tooth decay.' He of course said 'truth decay', and he is right, as we do all have a message to get over.

I was particularly glad and honoured that CGS and his colleagues at RUSI specifically wanted to hear about our enthusiasm for the Land Industrial Strategy and our determination to make it succeed.

I hope, indeed I'm convinced it marks a turning point in how the Army is thinking and in due course potentially, what the population at large may think about the Army.

The British people are deeply grateful for the commitment, the dedication and resolve of the Army defending peace, our interests and our allies globally. They recognise that it is a task that this country has always taken on and will do so even more as IOpC reaches fruition.

However whatever the huge and genuine admiration for what the Army does so brilliantly there is another source of pride from which the other services undoubtably benefit in public perceptions.

The Royal Navy is synonymous with shipbuilding and those extraordinary Aircraft Carriers are alive in public perceptions right now as HMS Queen Elizabeth embarks on CSG.

The Royal Air Force conjures up memories of Spitfires, jet engines, the Harriers and the ongoing skills and jobs supporting Typhoon and a Future Combat Air System.

Even though we all recognise the fundamental differences between the services I cannot help but think the Army has been missing a trick in not adding to public perception not only the sense of security and gratitude for its professionalism, but a greater recognition of its positive impact on national skills on prosperity.

As CGS himself this morning, a Land Industrial Strategy will be an important lever to change both perception and reality, and I say very truly that I'm delighted that Simon Hamilton just earlier stole much of my thunder, and many of the points I will be making today, so well done him.

I am delighted with this emphasis on building the Army's industrial partnerships, of upskilling and of driving our Land Systems export potential and international participations.

We can indeed through a Land Industrial Strategy do so much more.

"Supporting prosperity" is after all a Defence Task.

Driving forward technology with civil applications and the capability of Land Equipment joining Combat Air and Maritime to secure the UK's position as the second largest Defence exporter globally. Leveraging off the excellent and expanding network of DAs an increasing number of whom I have had the privilege of working with on export campaigns.

Building on the cutting-edge capabilities that make the UK the partner of choice in the international programmes on which we all rely. CGS again referred from the outset to our people and their skills being central. Let us be clear about the importance of the military role of identifying, testing and shepherding through new capabilities. These SROs have a vital role in delivering real operational advantage into the front line and I know they will receive investment and support.

So, let us put the Land Industrial Strategy in context. Three decades ago, land power played a critical role in the Gulf War with our tanks racing across the desert to liberate Kuwait.

That was a sight then familiar to many veterans of the time and a vision which still informs the views of many who would regard themselves as current friends and allies of defence.

Today we recognise that picture has changed profoundly. Our adversaries have taken giant steps forward and the threats are almost unrecognisable.

In the conflicts between Armenia and Azerbaijan we've seen how low value drones used at standoff distances can target forces and their supply chains.

While across the world nations are having to defend themselves from daily cyber-attacks, from heavily armed proxy forces, from malicious misinformation

and from a host of other covert tactics.

Increasingly, our enemies seek to blur the boundaries between peace and war and to undermine our democracies without provoking an armed response.

That may not be without precedence, but given the evolution of their techniques and the proliferation of their tools they represent a constantly evolving array of threat. One thing is clear, we must adapt and we've got no time to lose.

All of this has compelled us to radically rethink the way we do Defence.

Starting with last year's Integrated Operating Concept, we are now readying ourselves to respond rapidly and persistently to dangers, especially those in the 'grey zone', the arena of constant competition in which we now find ourselves.

And thanks to our recent Integrated Review and the Defence Command Paper, we're making sure the right kit will be delivered to a more agile and more lethal Army to ensure that's done at the speed of relevance.

Now these are, I accept, bold claims, given some would argue, the departmental track record. So how are we going to inject speed? And what does that mean for the Army? As the Minister responsible, I would highlight three aspects that give me confidence:

1. INVESTMENT

First, we are investing – we're investing to give you what you need.

The hard truth is that the Army relative to other TLBs needs to catch-up on long term investment. The pressing need in recent decades to deliver UORs and the focus on difficult and complex conflicts, in common with many of our allies, has led to insufficient future proofing of our land equipment.

Germany, as many of you will be very aware, has upgraded its Leopard main battle tank 15 times since it was brought into service, exported it to 18 countries and built over 3000. By contrast the UK has only delivered a single core upgrade to Challenger 2.

But we're going to turn that around.

The Prime Minister has committed to spending £188bn on Defence over the coming four years – an increase of £24bn.

Over 10 years, some £24bn again will be invested in the Army, more than any other Command.

That new funding has been earmarked for new vehicles, long-range rocket systems, air defences, drones, electronic warfare and cyber capabilities.

We are getting on with the task of making that spend a reality.

Last month we announced invested on a new fleet of 148 Challenger 3 Main Battle Tanks. Thirty years after the original Challenger charged across the desert , its overdue upgrade will give us one of the most protected and most lethal tanks in Europe.

We're investing in Boxer armoured fighting vehicles. Swiftly covering long distances, no matter the environment, no matter the weather, these 8x8 vehicles will be fully digitised and connected.

I had the great privilege to get the guided tour of their factory in Stockport recently and officially open their state-of-the-art facility.

And then there's the new Ajax vehicles, bringing a step-change in versatility and agility to the Army. I was in Merthyr seeing the production line last week and yes for the eagle-eyed amongst you, inevitably, with a Demonstration phase, there are issues that are being addressed. They are being addressed in partnership with industry to ensure the rapid delivery of these impressive vehicles. It is plain for me to see the capability leap AJAX will provide. Able to Hoover up data from the ground, air and cyber space, it can build a four-dimensional picture of the battlespace and help coordinate our response with the wider force.

At the same time, we'll develop new artillery systems improving our standoff lethality against emerging threats, as well as enhanced electronic warfare and signals intelligence capabilities.

We're investing in Ground-based Air Defence to give the Army the ability to counter modern airborne threats, as well as investing in Tactical ISR.

And all our kit will be underpinned by our digital backbone providing modern, cohesive, secure communications from the command post to the frontline.

So this is a very positive starting point.

By enhancing our equipment we will make every part of our Army more effective. And deliver greater power and punch.

2. INDUSTRY PARTNERSHIP

This brings me to my second point because investment is only one part of the speed equation. We also need to accelerate our acquisition processes.

We need to make our investment work better and quicker for us and work better for industry.

It's not enough to get the right equipment. We must get it at the right time. That's why, as Malcolm mentioned, we recently published our Defence and Security Industrial Strategy (DSIS) which provides a framework of greater integration between Government, industry and academia.

I know the Army have already worked with the other services, as Simon mentioned earlier, where the principles of DSIS are already being applied and to share their lessons.

They've been considering, for example, what's happening to Future Combat Air System (FCAS), how we're putting in £2bn to leverage up hundreds of millions of pounds of industrial expenditure, training 2,000 apprentices and galvanising an entire sector – making the most of a vital project.

They've seen what we're doing with shipbuilding – where we're providing the Royal Navy and British shipbuilding industry with a drumbeat of orders from OPVs to aircraft carriers to Type 26 and Type 31 and future Type 32.

And they recognise how our approach to complex weapons can make a difference through the adoption of a portfolio management approach – assisting the open exchange of information and ideas and providing the security that comes from working closely together.

3. LAND INDUSTRIAL STRATEGY

And drawing on these principles we will soon be releasing our Land Industrial Strategy, as a part of DSIS.

It's a strategy that will provide long-term industrial investment in R&D like FCAS.

A strategy that will provide the consistency of a drumbeat of orders like with shipbuilding.

And a strategy willing to embrace a portfolio approach as in complex weapons.

I don't underestimate the difficulty involved in making this work. In particular, it seems to me there will be three obvious challenges we will have to overcome:

1. Change culture inside Defence

First and foremost, we need to challenge our culture and focus on speed, agility and adding value.

We need to have close relationships with onshore industry and with our international partners.

We need to recognise the longer term consequences and social value that our investment can unleash.

And we must recognise that being clearer about our requirements will ensure they are better placed to invest in upskilling and focusing their R&D.

2. Challenge to bring things into frontline more quickly

Next, we must advance our equipment onto the frontline more quickly. We must have the courage of our convictions. Be satisfied with jumping through fewer hoops, taking decisions earlier and pulling them through with purpose.

The lesson of recent times is that to refine endlessly in the expectation of achieving exquisite and decisive advantage can be self-defeating.

We've got to go with 80 per cent solutions and be prepared for onward spiral development, I think General Bowder and Alex both made that point, but to do so comfortable that Defence will find the resources.

That makes sense for us and makes sense for industry. Those 15 Leopard upgrades weren't just providing better kit – they were maintaining a skilled industrial base with an incentive to innovate.

And speed and innovation is the nature of modern warfare.

Our new approach must focus on open physical, electronic and digital architectures, on commonality and modularity.

On working with industry to integrate upgrades into through-life support contracts.

Only then will we get the enhanced kit in real time that enables us to maintain our pace against adversaries, and retain and enhance on-shore and with our allies the critical 'technological advantage' these times demand.

3. Gamechangers

But we don't just want to get faster in producing and replacing existing kit and capabilities.

So, our final challenge is to go for gamechangers that enable us to leap ahead of our adversaries.

Everything we currently buy, we buy because someone says, "We see a threat and we need to meet and respond to it". That remains, of course, our cornerstone, but we have to take a leaf out of our adversaries' book and do more.

We have to be prepared to think laterally about how we can unsettle and destabilise our adversaries' calculations and make our deterrence even more effective.

As we all know those famous 'Dreadnought' moments – the hay-nets into fuel cans, which completely change the face of modern warfare do occur. We need to be able to generate those moments and do so for the land environment as much as any other.

It is to such projects that we will be committing part of our £6.6bn plus of R&D investment: turning around the long-term decline in Defence R&D since the end of the cold war.

We're going to embrace the opportunities offered through AI, automation, Human Machine Teaming.

We will be investing a greater share of our money into such technologies as directed energy, drone swarms, electric drives, systemic protection systems or long-range deep fires.

We must be ready to support industry – and all parts of the private sector, not just the traditional primes – to pursue what may occasionally seem like off-the-wall ideas.

We must be ready to take risks, be ready to fail fast and move onto the next idea if they don't work.

An impetus driven through the supercharging of experimentation as mentioned this morning including through the Army's Warfighting Experiment and its Battlelab in Dorset. There, we'll work with industry to combine the latest tactics with the latest technology.

And that's why we're setting up the land equivalent of Tempest and FCAS – to co-develop with industry the next generation of land combat systems.

###WORKING INTERNATIONALLY

Our Land Industrial Strategy will make manifest our commitment to partner with onshore UK industry.

Bolstered by our significant investment in R&D.

We remain as committed as ever to international partnerships.

We know we are so much better off when working collaboratively with our allies.

Better off in terms of economies of scale. Better off in terms of interoperability.

However by making the investment we are, by building strong partnerships, by focusing on R&D and skills we know that we can "bring more to the party," drive international collaboration and ensure our Allies and we continue to generate the equipment our troops require.

Conclusion

We will continue to ensure we provide the capabilities the Army needs for its demanding tasks. But in doing so we will be more long term, more thoughtful and as we look to the future in a more contested world, we recognise that speed and adaptability must be our watchwords.

Operationally with the Army.

Internally with industry, acquisition and R&D.

And externally through our international partnerships.

This combination will forge a virtuous circle.

Strengthening our forces, galvanising our industry, boosting our exports.

For industry achieving the return on investment to be reinvested in the R&D that will continue to generate new capabilities at the speed of relevance.

It won't be easy, but this is an exciting time for Defence in the UK.

And I look forward to working with you all to make this grand vision, truly, a reality.

G7 Chair's statement on vaccine confidence

Today, the G7 Working Group on Vaccine Confidence convened the Global Vaccine Confidence Summit, which saw partners from all sectors commit to building trust and confidence in vaccines globally as a way to promote health worldwide and accelerate the world's recovery from the COVID-19 pandemic.

Vaccines were recognised as one of the most successful and cost-effective public health actions and investments in history, currently saving between two and three million lives every year. They have an indisputable track record – eradicating smallpox and greatly reducing the incidence of other vaccine preventable diseases.

Partners celebrated the unwavering efforts of scientists across the globe to develop life-saving COVID-19 vaccines. Working in partnership with regulatory authorities responsible for setting the standards for the safety, efficacy and quality of vaccines and other health products, safe and effective COVID-19 vaccines have been developed and approved at historic speed thanks to unprecedented funding and global cooperation.

It was acknowledged that vaccine confidence is essential for the global uptake of any vaccine, including COVID-19 vaccines, which are critical to our collective recovery and reducing the risk of further outbreaks.

Partners agreed that misinformation is damaging perceptions of the importance, safety, and effectiveness of vaccines. Left unaddressed, it will impede global uptake of COVID-19 vaccines, routine immunisations programmes, and diminish trust in public health bodies.

The availability and equitable accessibility of COVID-19 vaccines is currently posing a barrier to global uptake, however partners committed to ensure that confidence in vaccines is built early to allow prompt and mass uptake of vaccines when they become available.

Through the G7 Vaccine Confidence Working Group, the UK as Chair will push forward an ambitious agenda to build global confidence in vaccines and address the misinformation that is undermining it.

To be successful in addressing this complex issue, global cooperation spanning all sectors will be encouraged, including government and non

government organisations, academia, the private sector, and trusted community leaders. By mobilising partners from these sectors, we hope to amplify the reach and impact of our work.

Together with leading researchers we will seek to build a greater understanding of the drivers of and barriers to vaccine confidence. This evidence-based approach will inform the shared tools, campaigns and best practices that are developed, with the recognition that these must be context-specific.

Partners recognised communications as an important lever in our collective recovery from the pandemic, as well as for global change, and supported the development and adoption of best practice communications principles. It was also acknowledged that communication activity to build vaccine confidence must be underpinned by strong science, community leadership, and policy mechanisms that promote the availability and equitable accessibility of vaccines to all populations locally and globally.

A collective global recovery from the pandemic will be one of the most important achievements of our lifetimes. As Chair, we resolve to undertake ambitious action on vaccine confidence in order to drive uptake of vaccines, bring an end to the acute phase of the pandemic, and protect countless lives around the world.

World-leading experts commit to building vaccine confidence at UK hosted Global Vaccine Confidence Summit

- The Global Vaccine Confidence Summit convened world leading experts to commit to greater international collaboration to build vaccine confidence globally.
- Speakers at the Summit included: Matt Hancock MP, Secretary of State for Health and Social Care, UK Government, Dr Tedros Adhanom Ghebreyesus, Director General at World Health Organization (WHO), Helle Thorning-Schmidt, former Prime Minister of Denmark and former CEO of Save the Children International, and Co-Chair of Facebook's Oversight Board.

LONDON: As part of its G7 Presidency, the UK Government convened the Global Vaccine Confidence Summit today, a first-of-its-kind event, bringing together global experts from across the public and private sector to build and maintain confidence in vaccines.

Recent data published by YouGov shows the UK continues to top the list of nations where people are willing to have a COVID-19 vaccine or have already been vaccinated.

During the Summit, world-leading experts at the forefront of efforts to build vaccine confidence and tackle misinformation about vaccines offered their perspectives on the critical global actions that governments and partners from across sectors can take to address the issue.

It was acknowledged that increased levels of vaccine confidence, accessibility and availability are needed globally in order to end the pandemic. One of the biggest threats to confidence in vaccines is misinformation, which can damage public perceptions of vaccine safety and efficacy.

Speaking at the Summit Matt Hancock MP, Secretary of State for Health and Social Care, UK Government:

Vaccine confidence is an international challenge and one that needs international action. At the G7 Health Ministers meeting this week, we'll be talking about how to beat this pandemic worldwide and also how to beat the worldwide pandemic of misinformation and mistrust that can hamper the responses.

We're launching, leading and championing a Global Vaccine Confidence Campaign led by the G7 Global Vaccine Confidence Working Group with a mission to promote confidence and trust in vaccines globally.

Delivering a keynote speech at the Summit Dr Tedros Adhanom Ghebreyesus, Director General at World Health Organization (WHO), showed his support stating:

A key driver of vaccination is public trust. Trust must be earned. To succeed in vaccinating the whole world, governments will have to deploy a range of strategies and tailor them to each country.

Helle Thorning-Schmidt, former Prime Minister of Denmark and former CEO of Save the Children International, and Co-Chair of Facebook's Oversight Board, who spoke at the Summit said:

We know a lot about vaccine hesitancy which means we should know what to do and do it fast. A debate in one country impacts trust and hesitancy in others. The world is a small place. As a global community we have to understand that no one is safe until everyone is safe.

Will Cathcart, Head of Whatsapp, said:

If we are to reach billions of people with vaccines – down to the last person – we need to meet people where they already are. I believe that private messaging services can play an important role in helping to bring this pandemic to an end globally, and I am proud of WhatsApp's partnerships with over 150 health organizations to connect people to official sources of information and to schedule their vaccine appointments.

Other speakers at the Summit included Dr Anthony S. Fauci, Director of the U.S National Institute of Allergy and Infectious Diseases and Chief Medical Advisor to The President, and Dr John Nkengasong, First Director, Africa CDC who debated the relative success and challenges of building vaccine confidence in the US and Africa respectively, and what lessons are relevant for other regions.

Dr Anthony Fauci, Director of the US National Institute of Allergy and Infectious Diseases, said:

Science evolves with the epidemic and there was a feeling that there were mixed messages as the pandemic evolved. However, science is self-correcting. New evidence and new data will require us to modify our approach to a pandemic, the recommendations and the guidelines.

Wendy Morton MP, the UK's Minister for European Neighbourhood and the Americas, expressed the UK and its G7 partner's on-going commitment to support efforts to ensure vaccines are accessible, available and trusted globally.

Caroline Dinenage MP, the UK's Minister for Digital and Culture, called for greater international and cross-sector collaboration to tackle the threat of misinformation.

At the Summit, the UK Government announced ambitions for its G7 vaccine confidence activity designed to support global cooperation and more effective responses on vaccine confidence and addressing misinformation globally.

- An innovative digital insight platform, which will provide global and local insight, as well as trends on vaccine confidence and the harmful misinformation that is seeking to undermine it. More details will be announced soon.
- A coalition of some of the world's best academic organisations to understand 'infodemics' and promote healthy information ecosystems. The coalition called IRIS is a collaborative project between the Vaccine Confidence Project (London School of Hygiene & Tropical Medicine), University of Cambridge, Sapienza University of Rome, Ca' Foscari University of Venice, City University of London (and the Alan Turing

Institute) and the Harvard T.H. Chan School of Public Health.

An interactive photo mosaic created in partnership with the UK Government and the People's Picture, titled 'The Luminaries', was also unveiled today. Using video and images it showcases the many global 'Vaccine Luminaries' who are taking to social media to build confidence in vaccines, including health care professionals on the front line. The platform is available on a [dedicated website](#) with plans to feature more 'Vaccine Luminaries' from around the world over the next year.

The Global Vaccine Confidence Summit forms part of the UK's wider work as G7 President this year to bring an end to the pandemic, with vaccine uptake, access and confidence a key component.

[SIA supports the Worshipful Company of Security Professionals COVID-19 crisis fund](#)

Launched in January 2021, The Worshipful Company of Security Professionals Charitable Trust, crisis fund seeks to help those working within the security industry in a front line, security role who have suffered as a result of the COVID-19 pandemic. This includes those in private security as well as blue light services and the military.

The Worshipful Company of Security Professionals Charitable Trust is offering two types of grants:

- £250 for applicants who have been hospitalised due to COVID-19
- £500 to dependents of those who have died because of COVID-19

Members of the private security industry who fit the criteria can apply for the grant by downloading the [application form here](#). For more information about the Worshipful Company of Security Professionals Charitable Trust COVID fund, please visit the website [here](#).

A business can also apply for the fund on behalf of their employees and funds are paid directly to the employee.

The SIA's grant comes from monies recovered from the proceeds of crime confiscation orders under the [Proceeds of Crime Act 2002](#) (POCA). Since 2017 the SIA has been pursuing financial recovery from convicted criminals following prosecution. Where the SIA has brought a prosecution and there has been a conviction, the SIA may undertake confiscation proceedings against those convicted. If successful, the SIA receives a percentage of the confiscated money. The proceeds must be used to either fund good causes or

further SIA financial investigations.

Pete Easterbrook, the SIA's Head of Criminal Investigation, said:

We are delighted to be making a significant contribution to support victims of the pandemic, as well as building firm relationships with the Worshipful Company of Security Professionals. The purpose of confiscation under the Proceeds of Crime Act is to ensure that crime does not pay and it feels like suitable restorative justice to return money to individuals in the private security industry that was originally gained illegally.

Yasmeen Stratton, Master of the Worshipful Company of Security Professionals said:

Our front line personnel continue to play a vital role protecting our businesses and people. The crisis fund is a simple process that provides a swift response to security staff who have been adversely affected by COVID-19, and with a fund capability that will respond to the anticipated high number of grant applications. The company and the charitable trust have always supported the most vulnerable people working in – and retired from – the security profession, and that work continues. I am delighted to see the launch of the COVID-19 fund as it offers almost immediate support to people in our industry where a small financial cushion can make a big difference.

Claire Palmer, Chair of the Charitable Trust, said:

Early on in the pandemic the research expressed that those working in front line security had been particularly affected by COVID-19. We wanted to do something about that and provide a focal point for industry to make donations and with a straight forward easy process for those affected. Whilst the sum granted to individuals is relatively small, to those applying for the grants, it is a vital form of support and ensures we can reach the maximum number of front line security workers. We are particularly grateful to the SIA for their support of this initiative.

The SIA's grant to the Worshipful Company of Security Professionals is the third that it has made from the proceeds of crime reparations. In 2020 the SIA donated £25,000 to the EY Foundation Secure Futures initiative. It also invested £20,000 in The Prince's Trust 'Get into Security' initiative in Northern Ireland.

The SIA will announce when there are opportunities for national and regional charities to bid for a donation from the SIA's grant for good causes. Further

details are [available on GOV.UK](#).

Further information:

- The SIA has held powers under POCA since 2015, which allows us to undertake financial investigations and seek confiscation orders against companies and individuals who make a profit from criminal activity. POCA is a law that means any money made from criminal activity can be recovered.
- Read the SIA's blog '[The Proceeds of Crime Act \(2002\)](#)', published in 2019.
- The Security Industry Authority is the organisation responsible for regulating the private security industry in the United Kingdom, reporting to the Home Secretary under the terms of the Private Security Industry Act 2001. Our main duties are: the compulsory licensing of individuals undertaking designated activities; and managing the voluntary Approved Contractor Scheme.
- For further information about the Security Industry Authority visit www.gov.uk/sia. The SIA is also on [Facebook](#) (Security Industry Authority) and [Twitter](#) (SIAuk).