Preface

The existing relationship between the UK and the EU goes far beyond what is usually set out in bilateral trade agreements. EU-specific issues crucial to the UK tech sector, such as the free movement of people, access to EU investment funds, EU support of UK scientific research and collaboration, are not ones which usually come under the purview of free trade agreements (FTAs).

In this report, we are identifying and exploring some of the principles relevant to the future UK-EU relationship. But these principles should not be seen as a roadmap for a UK-EU trade agreement. That will need to include a far wider range of provisions than what is laid out in this report, including, for example, commitments on the UK’s relationship to the Single Market.

Separate to Brexit, the UK should also be mindful of some of the fundamental enablers that the Government will need to get right to make the most of this vision for digital trade. Actions such as building fast and comprehensive digital connectivity across the country, helping equip people with digital skills, and taking steps to bridge the knowledge gap for companies who do not know how to trade internationally are all essential for the UK to ensure it is able to be a leader in trading digitally. Likewise, ensuring that the UK’s domestic policies align with what it is advocating internationally is crucial for the UK to establish itself at the forefront of likeminded countries.

What is Digital Trade?

“Digital trade is the cross-border transfer of data, products, or services by electronic means, usually the internet.”


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Executive Summary

In a rapidly digitising world, getting digital trade right will be essential. The global e-commerce market is already worth US$27.7 trillion. The technologies of the 4th Industrial Revolution, such as additive manufacturing, artificial intelligence and the Internet of Things (IoT), among others, will further turn existing forms of trade on their head and open up new opportunities for UK tech businesses.

The Rise of Digital Protectionism and the Global Context

Despite the growth of digital trade, many countries are taking a protectionist stance that threatens this growth and will increase costs for consumers and businesses. Free trade is in dire need of champions, and the UK should be a strong defender of the importance of reducing barriers to trade, rather than splintering the digital ecosystem. This needs to be modelled both in the UK’s engagement in international fora and the tone and direction of the domestic policy agenda on digital.

To do this, it is going to be essential that the UK puts digital trade at the heart of its trade policy in all arenas as a champion of multi- and plurilateralism. At the World Trade Organization (WTO), negotiations are under way under the banner of the Joint Statement Initiative on Digital Economy Partnership Agreement and the moratorium on digital tariffs both at the WTO level and in its agreements. To allow the re-emergence of tariffs as an offensive weapon in economic disputes is a troubling development. The UK’s Digital Trade policy should seek to extend the protections offered by the WTO’s Information Technology Agreement and entrench those in bilateral UK deals. It should also do all it can to protect the moratorium on digital tariffs both at the WTO level and in its agreements. To allow the imposition of customs duties on electronic transmissions would undermine a key enabler of the digital economy.

III. Intellectual Property

1. Prevent the mandatory transfer of source codes, algorithms, or encryption keys as a condition of market access
2. Support the development of AI through enabling open government data and text and data mining

Intellectual property rights are an enabler of innovation. Yet some states have sought to demand intellectual property as a condition of market access. The UK should work through its trade agreements to prevent the mandatory transfer of source codes, algorithms, and encryption keys. In other areas, new technology is transforming traditional notions of intellectual property. The UK’s trade policy can enable the development of innovative AI by supporting the use of open government data and text and data mining.

IV. Regulatory Cooperation

9. Establish cooperation on the regulation of AI, fintech and other emerging technologies
10. Establish cooperation on cybersecurity issues with an emphasis on a risk-based approach

While tariffs are an important issue for digital trade, the reality is that the primary barriers are those behind the border. Non-tariff barriers,
like differing approaches to regulation, will be the main block to digital trade and the export of innovative UK technologies such as AI or fintech products. The UK’s digital trade policy should look to establish cooperation between regulatory bodies and expand promising new approaches such as ‘fintech bridges’.

V. Trade Facilitation
11. Standardise minimum di minimis thresholds to facilitate e-commerce
12. Secure recognition of e-signatures and expansion of paperless trading

Digital trade policy can also play a role in facilitating the flow of other goods and services. E-commerce platforms have opened global markets in goods for SMEs. The UK should seek to standardise di minimis thresholds to help the cross-border trade of small packages. Working with international partners and other partners, the UK should secure the recognition of e-signatures and expand paperless trading, helping to bring all aspects of trade into the 21st Century.

Supporting Digital Trade
UK free trade agreements that are built on these principles would set a new gold standard in Digital Trade. They would firmly establish data flows as an essential foundation to all trade and would break new ground in supporting innovative technologies like AI in trade agreements. But the digital trade chapter alone is not enough to support the international growth and expansion of the UK tech sector. Reducing barriers to the export of services and the movement of talent across borders are important areas, as is increasing access to telecommunications markets. The principle of limited liability has been a key part of the growth of the online economy, helping safeguard important principles of expression and protect supply chains. Governments are important buyers of technology and expanding procurement opportunities will do a lot to support the UK’s thriving GovTech sector. Protecting the UK’s approach to standards-setting processes will be important to maintain the UK’s lead in their development. Finally, given the complexity of modern tech products and the supply chains that go into producing them, it should be an aim to include reasonable local content requirements in rules of origin.

The UK has a unique opportunity to set a new course in its trade policy and design its setting processes will be important to maintain the UK’s lead in their development. Finally, given the complexity of modern tech products and the supply chains that go into producing them, it should be an aim to include reasonable local content requirements in rules of origin. The transformation of the global economy over the past three decades means that UK trade policy must be digital by default. If the technologies of Industry 4.0 are essential to all sectors of the economy, and are enablers of both the goods trade and now a primary means of delivering services, then a failure to get digital right would mean that the UK would not reap the full advantages from trade across a huge range of sectors.

Digital Protectionism
A rise in digital protectionism puts the need for an effective UK digital trade policy in a starker light. Over recent years a growing number of countries have introduced measures that seek to either shield their domestic markets from international competition or shelter their citizens from outside services by restricting trade or discriminating foreign firms. These policies take different forms. These include measures such as, but not limited to:

1. The State of Digital Trade

The Growth of Digital Trade - Digital technologies have transformed international trade. In the space of three decades, an analogue world has been wiped away by information communication technologies (ICTs). These have upended traditional goods supply chains and created entirely new industries and services through the internet which can be traded across borders with ease.

But the pace of technological change has only sped up over this time. Industry 4.0 and Society 5.0 are already redefining the world we live in once again. The mass adoption of personal computers, mobile phones and broadband internet, as well as the software that underpins them, defined the ICT Revolution. Now Industry 4.0 brings automation into the mix, with the industrial IoT, machine learning, additive manufacturing and autonomous robots along with other technologies already taking on a major role in innovative economies. The gains from these technologies and from digital trade are by no means limited to the digital sector alone. For example, mining companies now expect to employ more data scientists than mining engineers and already use autonomous machinery extensively in their operations. Retail stores are deploying IoT technology to help with predictive equipment maintenance in refrigeration units and automating warehouses to fulfill orders. Digital transformation is present in all parts of the economy. Indeed, 75 per cent of the value created by the internet has been captured by companies in traditional industries.

The impact on the global economy by digital technologies has been huge. The WTO has estimated that in 2016 the value of e-commerce transactions was US$277 trillion. Of this, the vast majority, (US$23.9 trillion), was in business-to-business e-commerce. Meanwhile, trade in the physical IT goods that the digital economy depends on has tripled since 1996 to reach $1.6 trillion in 2016. Data flows themselves have been estimated to have increased global GDP by $2.8 trillion in 2014. These changes are underpinned by the globalisation of goods, services, people and ideas. When intangible goods and services, such as online banking, predictive analytics, or the designs for a 3D printed item, can flow across borders at ease, then it is important to approach digital technologies with a global mindset.

Global Value Chains (GVCs) are now an essential component of modern trade and have seen the diffusion of intermediate services (such as design, marketing, or logistics), as well as component manufacturing, across borders. The transformation of the global economy over the past three decades means that UK trade policy must be digital by default. If the technologies of Industry 4.0 are essential to all sectors of the economy, and are enablers of both the goods trade and now a primary means of delivering services, then a failure to get digital right would mean that the UK would not reap the full advantages from trade across a huge range of sectors.
The implications of these types of policies are stark. The Swedish Board of Trade has said that the rising restrictions on the movement of data “threatens to fragment the global digital economy and raise the costs of goods and services.”16 The European Centre for International Political Economy (ECIPE) has argued that a “restrictive regulatory environment for digital trade will weigh down many non-digital sectors.”17

Economic analysis by ECIPE has quantified the losses that result from data localisation requirements and related data privacy and security measures that discriminate against foreign suppliers of data. It found that the impact of proposed or enacted legislation on GDP was to the tune of -1.1 per cent in China and -1.7 per cent in Vietnam. The impact on domestic investments by measures of data localisation was -4.2 per cent in China, -1.9 per cent for the EU. Exports of China and Indonesia decrease by -17 per cent due to loss of competitiveness. The welfare losses are substantial, up to US$63 billion for China and US$193 billion for the EU thanks to higher prices and displaced domestic demand that cannot be met by supply.20

Protectionist policies can also have other effects, such as undermining internet stability and interoperability, with a growing risk that this will end in a balkanisation of isolated country-specific web.21 Reductions to internet openness can reduce technology diffusion, affect global value chains and weaken growth.22 The implications can be even more extreme when protectionism evolves into forms of cyberwarfare, as in the case of China who has allegedly used distributed denial of service attacks and other methods to disrupt cyberwarfare, as in the case of China who has allegedly used distributed denial of service attacks and other methods to disrupt

The trade war between the USA and China has further complicated the digital trade landscape. The disagreement is fuelled by a growing competition between the two countries in the technologies of Industry 4.0, in particular US objections to protectionist measures implemented by the Chinese such as the forced transfer of technology.23 Already the trade war has cost the two countries welfare losses of around $150 billion combined. Should the continued escalation result in a total breakdown in trade then the losses would be in the order of $400 billion each.24

It is into this world, buffeted by protectionist currents and adverse trade winds, that the UK will enter post-Brexit. The UK’s digital trade policy will need to grapple with a situation that is less open than it has been in a long time. In multilateral fora and through bilateral and regional trade agreements, it will be important that the UK is a strong and consistent voice in favour of combatting protectionism which costs businesses and consumers and threatens economic growth. It should be a firm advocate of removing restrictions to trade and preventing the rise of new barriers as the global economy adapts to the digital world.

Trends in Digital Trade Policy

The UK will not be charting a lone course in being an advocate of digital trade. Instead, it can build off the best practices established by other countries. Ever since Australia and Singapore concluded the first FTA to contain a dedicated e-commerce chapter in 2003, various countries have embarked on an iterative process to develop deeper commitments in the digital space.25 These initiatives in FTAs have happened in the absence of overarching rules on digital trade. When embarking on its digital trade policy, while there are some areas the UK can seek to be innovative, it will not have to reinvent the wheel.

Multilateral Efforts

A lack of shared definitions and norms for digital trade have helped create the conditions where protectionism can spread, and FTA provisions are even more elusive. The rules governing international trade, as set out in the General Agreement on Tariffs and Trade (GATT) and the General Agreement on Trade in Services (GATS), which together are the foundational documents of the WTO, predate the commercialisation of the internet. Though GATS has provisions for telecommunication services, there are no agreed provisions for, or definitions of, digital trade. So far, efforts to update these rules to take account of the shape of the 21st century digital economy have failed. A work programme was started on e-commerce at the WTO in 1998, but aside from agreeing the renewal of the moratorium on customs duties on electronic transmissions, it has been without notable successes.26

More recent efforts have also failed to yield results. The Trade in Services Agreement (TiSA) set out to update the rules around services, with a focus on bringing in digital trade provisions. 23 WTO members took part in negotiations, including the UK through the EU, but talks have been stalled since 2016.27 While it is unlikely TiSA will be revived any time soon, should talks restart then the UK should join the negotiations as a participant in its own right.

A more promising avenue to update global rules is through the Joint Statement Initiative on e-commerce (JSI). Informal talks that staked out the key areas began following the 11th WTO Ministerial Conference in Buenos Aires in 2017. On the margins of the World Economic Forum in Davos in January 2019, 76 WTO members announced the formal start of negotiations to reach a plurilateral agreement on the “trade-related aspects of electronic commerce”.28 Notably, participating countries include China as well as the USA, EU and a range of developing nations, though India is a notable omission. What marks these talks as more promising than the ones before it is the wider political uncertainty around the WTO, with its Appellate Body now defunct due to the US veto on appointments. As techUK heard first hand during its delegation to Geneva in April 2019, many countries see the e-commerce JSI as a crucial opportunity to demonstrate the WTO’s continuing relevance and ability to reach commercially meaningful outcomes.

Whether this goodwill will be enough to overcome decades of multilateral inertia on digital trade remains to be seen. Deep policy divides threaten to hold up the talks, especially between China and the USA. EU ambitions to set the pace in digital regulation are also likely to cause some problems along the way. Nevertheless, the JSI marks the most promising opportunity to agree global rules in digital trade and after Brexit the UK should participate as an independent WTO member and work towards an ambitious and inclusive outcome.

Digital Trade and Development

Bringing on board developing nations and ensuring it is an inclusive agreement will be key to the success of the JSI. For the agreement to have as much legitimacy as possible then it needs to be based on a wide range of WTO members. Furthermore, to be commercially significant then it will be important that it includes developing countries, who are experiencing rapid growth in internet and mobile penetration, and who are also often more protectionist in the digital realm.29

As the negotiations progress, and as the UK embarks on its own trade policy, it is important that the UK recognises the links between its digital aspirations and international development. While the 4th Industrial Revolution poses challenges and opportunities to countries such as the UK, for example around the future of work, these can be magnified in...
the context of developing countries. There is a risk that the digital divide could increase, with developed countries adopting cutting edge technology, such as AI and robotics, while other countries lack the capital or the skill base to make use of them, thus widening global inequality.29 Worries over other pressing problems, such as food security or the effects of climate change, mean that digital issues can be seen as a distraction.

Yet technology can play a crucial role in helping meet the UN’s Sustainable Development Goals and addressing global challenges.30 The UK can play an important part in this process through its aid budget. Building off the Department for International Development’s “Digital Strategy 2018-2020”, the UK should help support capacity building in regulatory agencies, including building the physical infrastructure requirements needed for participation in the digital economy, such as stable power supplies, providing data from UK sources, for example satellite imagery of soil erosion to help farmers, supporting the teaching of digital skills in schools, and facilitating paperless trading or digital rights management. Around half of the members of the WTO have signed at least one FTA including an e-commerce chapter, from a range of developed and developing countries.32

The number of agreements is growing rapidly. The EU-Japan Economic Partnership Agreement, which entered into force in February 2019, includes some of the EU’s most wide-ranging commitments on digital trade.33 A more ambitious digital chapter is included in the updated NAFTA, the United States-Mexico-Canada Agreement (USMCA).34 This builds on the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP), an agreement between 11 developed and developing Pacific nations and which the USA participated in negotiating, but did not ultimately join.35

Between them, the USMCA and CPTPP set the gold standard in digital trade provisions.36 They include clauses on crucial issues such as data flows, data localisation and the moratorium on digital tariffs, as well as breaking new ground in areas such as cybersecurity and regulatory cooperation. All of these are issues that should be central to a UK digital trade policy as will be explored below and the UK should seek to ensure that it follows the best practices established by the USMCA and CPTPP and include a robust digital trade chapter in its future FTAs.

The UK should also closely examine, and consider seeking to join, the new talks between New Zealand, Chile and Singapore on a Digital Economy Partnership Agreement.37 This will be a standalone agreement that seeks to set new high quality, world leading standards in digital trade as well as complement ongoing multilateral talks on e-commerce at the WTO and efforts in Asia-Pacific Economic Cooperation (APEC) and the OECD. This agreement will be open for accession by other WTO members which the UK should explore joining once it resumes its independent seat, along with any future efforts that attempt to set the agenda for digital trade.

Digital Trade in Other Fora

Trade agreements and the WTO are not the only fora relevant to digital trade. The growth of the digital economy has created vast new policy questions requiring international cooperation to deal with. Examples include the work of the OECD on “Going Digital” which seeks to help equip policy makers with the tools they need to deal with digital transformation, including through the development of AI principles.38 The G20 under the presidency of Japan this year held the first joint Trade and Digital Economy ministerial meeting to reflect the important interlinkage between the two areas.39 Likewise, the G7 has a major focus on digital issues30 and digital technology featured heavily in the G7 Finance Ministers meeting.40 These and other international fora can play a significant role in shaping the wider policy questions around digital trade. The UK should ensure it is a proactive leader in international fora such as the G20 and OECD in pushing for steps that facilitate and enable digital trade.
A VISION FOR UK DIGITAL TRADE POLICY

2. Digital Trade Principles

Digital technologies have transformed international trade. In the space of three decades, an analogue world has been wiped away by information communication technologies (ICTs). These have upended traditional goods supply chains and created entirely new industries and services through the internet which can be traded across borders with ease.

After leaving the European Union, the UK will once again have an independent trade policy. It is imperative that the UK makes the most of this opportunity to chart a course as a leading digital nation, utilising its trade policy to advance its digital agenda.

There are a number of areas where any international agreement can set a new bar for digital trade. This could be through a traditional FTA, i.e. a wide ranging multi-sectoral agreement that covers ‘substantially all trade’ as required by the WTO. Potential examples include a UK-US Free Trade Agreement, or the Future Economic Partnership with the EU (which would likely include many other Single Market specific items absent from most trade agreements). Alternatively, sector specific deals such as the negotiations on a Digital Economy Partnership Agreement could offer interesting new avenues to pursue digital trade, if they prove compatible with WTO rules. Large multilateral talks like the JSI on e-commerce should be avenues where the UK seeks to raise the bar on digital trade.

Whatever form future UK agreements take, they should ensure they have strong commitments on digital trade across five key areas. In these areas, we are putting forward twelve specific recommendations:

**Data**
1. Enable the cross-border flow of data without compromising data protection standards
2. Prevent the forced localisation of data
3. Facilitate regulatory access to data
4. Prevent separate treatment for cross-border flows of financial data

**Tariffs**
5. Secure the expansion of the Information Technology Agreement in both geographic and product coverage
6. Make the moratorium on customs duties on electronic transmissions permanent

**Intellectual Property**
7. Prevent the mandatory transfer of source codes, algorithms, or encryption keys as a condition of market access
8. Support the development of AI through enabling open government data and text
9. Prevent separate treatment for cross-border flows of financial data

**Regulatory Cooperation**
10. Establish cooperation on digital taxation
11. Establish cooperation on cybersecurity issues
12. Secure recognition of e-signatures and expansion of paperless trading

The global economy runs on data. Across sectors and borders, data is an essential component of innovation, productivity growth and economic expansion. The use of data in the global economy will only become more ubiquitous as technologies such as cloud computing and AI become more embedded in value chains.

The extent to which the flow of data is the modern engine of global economic growth should not be underestimated. It has been estimated that global flows of data increased global GDP by US$2.8 trillion in 2014 alone - a larger contribution than was made by the trade in goods.\(^{10}\) Indeed, just the trade in services over the internet now represents more than 20 per cent of total trade worldwide.\(^{11}\) The global transformation of businesses and trade by the flow of data can be characterised in four ways:

- The use of the internet to export goods
- The purchase and consumption of services online
- The use of data collection and data analytics to allow new services, adding value to goods
- Data flows underpinning global value chains, opening up opportunities for participation\(^{12}\)

Despite the importance of data flows many countries have sought to restrict them. Recent research has shown that restrictive regulatory barriers have had “a negative and significant impact on trade in services”, both from sector-specific and economy-wide barriers. The result is that “policies restricting data flows across borders are likely to impede countries to reap the efficiency gains stemming from services imports” and that, in addition, “exports of data-intensive services would, in turn, decrease towards countries that impose strict data policies”.\(^{13}\)

In terms of the impact on businesses, barriers to data flows can result in higher costs to store and process data - often between 30-60 per cent more than if they were able to go outside their country.\(^{14}\) Restricting digital trade between countries with equivalent data protection standards can also prevent the transfer of day-to-day data needed for activities such as human resources leading to duplicative processes and incurring higher compliance costs - a greater weight on smaller firms. Specific requirements that financial data should be localised adds greater costs and restricts digital banking options for one of the most data intensive sectors of all.\(^{15}\)

It is essential then to reach a sensible balance between measures that address legitimate public concerns, for example the protection of personal data or the need for regulators to access financial data, while not unduly erecting
future agreements should also take into account the principles set out by the General Data Protection Regulation (GDPR) and enshrined in the UK Data Protection Act 2018: • Lawfulness, fairness and transparency • Purpose limitation • Data minimisation • Accuracy • Storage limitation • Integrity and confidentiality (security) • Accountability

Future agreements should also ensure that parties must publish clear and accessible information and guidance available online on how businesses can comply with the relevant data protection frameworks and how individuals can pursue remedies.

Include an Onward Transfer Mechanism

Where differences may arise between different data protection frameworks, it is important to ensure that there are mechanisms to allow businesses to continue to transfer personal data provided they meet the required level of protection. GDPR allows this through mechanisms such as standard contractual clauses and binding corporate rules. Future trade agreements should include provisions to oblige the existence of onward transfer mechanisms for personal data in full compliance with applicable data protection rules.

Commitment to Allow the Cross-Border Flow of Data

Future UK trade agreements should include a strong commitment that parties shall not prohibit or restrict the cross-border flow of data and information. Measures that restrict it for legitimate public policy objectives would be allowed, in a manner that is consistent in all trade agreements, provided that measures are not a means of arbitrary or unjustifiable discrimination or a disguised restriction on trade, and do not impose restrictions that are greater than are necessary to achieve the objective.

Dispute Resolution

Given the increasing centrality of data flows to the all sectors of the UK economy, the UK should ensure that provisions and commitments on the cross-border flow of data are subject to dispute resolution. These commitments can then be properly enforced and the UK and its businesses would have a means of redress if trade distorting measures are imposed or commitments on onward transfer not honoured.

Protection of UK-EU Mutual Adequacy

Finally, the UK should ensure that any commitment it makes in future trade agreements does not jeopardise a future UK-EU Mutual Adequacy Agreement. 75 per cent of the UK’s cross-border data flows are with EU countries and preventing any barriers to UK-EU data flows should be the UK’s priority.49 The above steps should not risk a Mutual Adequacy Agreement. Japan, for example, has such an agreement with the EU and has signed up to similar commitments through its participation in CPTPP and APEC’s Cross-Border Privacy Rules.

2. Prevent the Forced Localisation of Data

The case is often made that keeping data within a country’s borders is more private and secure, both from risks of hacking and from government surveillance. However, in most cases the reverse is true and localisation requirements do not increase commercial privacy or data security.50 Data transferred overseas is not exempt from the home country’s laws and contracts between consumers and businesses are an effective and enforceable means of ensuring data is protected. Not only do localisation requirements fail to meet their own policy objectives but they impose significant costs on a country’s economy. A 2016 study by the Centre for International Governance Innovation and Chatham House demonstrated that data intensive sectors such as communications and financial services suffered relatively high productivity losses but the impacts were even felt in other sectors such as manufacturing. They concluded that data localisation regulations “tend to cause an economy’s production structure to shift (back) toward less innovative and relatively volatile sectors such as agriculture, raw materials and natural resources”.51

As stated above, it is important that the UK requires its trade partners to ensure they have a strong and robust data protection framework, which is an essential enabler of trust in other parties’ treatment of data and facilitator of allowing data to be stored in other jurisdictions.

The UK should ensure it includes a reciprocal commitment in future trade agreements that ensures that no party shall require the use of computing facilities or their location in a Party’s territory as a condition of market access.

3. Facilitate Regulatory Access to Data

One of the accompanying arguments for the forced localisation of data is centred on concerns over regulatory and law enforcement access to data, which brought about changes to the US’s approach to data localisation. This has its roots in the difficulty US regulators faced in accessing data from Lehman Brothers in the wake of the financial crisis and their bankruptcy in 2008. As the company unravelled and overseas subsidiaries were sold off, there were numerous hurdles and practical difficulties in the way as the Federal Reserve and Federal Deposit Insurance Corporation tried to access Lehman’s 26,000 servers scattered across various jurisdictions.52

These are genuine concerns but ones that can be addressed both through domestic steps and in international agreements. In the former case, for “systemically important financial institutions” (SIFIs) oversight has been introduced in the US into how they manage their IT systems through the Dodd-Frank Act. This requires that SIFIs prepare “resolution plans” that ensure that there is an orderly winding down of the business in the case of bankruptcy to ensure regulators can access any information they need.53 A similar system is in place in the UK through the amended Banking Act 2009.54 While these measures are limited to large financial institutions and there may be a case to extend its requirements to other financial companies, they demonstrate that it is in the gift of domestic authorities to ensure that they have the ability to access important data regardless of the location it is stored in.

Outside of the realm of finance, there are other examples of international cooperation to ensure that regulators can access data and investigations can be conducted. APEC has been a leader in this area. In 2010 it created the APEC Cross-border Privacy Enforcement Arrangement (CPEA) to aid in the enforcement of privacy laws. It is designed to help facilitate information sharing, providing mechanisms to promote effective cross-border cooperation and encourage information sharing and cooperation on investigations and enforcement with regulators outside of APEC.55

The APEC arrangement has been used effectively in aiding regulatory investigations. One notable example is the joint investigation by the Privacy Commissioner of Canada, the Australian Privacy Commissioner and Acting Australian Information Commissioner into the hack of Ashley Madison. This took place thanks to the APEC CPEA.

For law enforcement, the growth of the digital realm has created new challenges in accessing evidence that may be stored on servers across the globe. Traditionally Mutual Legal Assistance Treaties have provided the means to access evidence in different jurisdictions but these have not proved capable of meeting the needs of law enforcement authorities when seeking the timely acquisition of e-evidence. International cooperation is needed to provide a coherent and consistent multinational approach to law enforcement access to data.

The UK should ensure that it complements trade negotiations with talks on new mechanisms of cooperation between the Parties, or on the UK’s accession to existing mechanisms. A trade agreement should include, where a separate agreement is not already in place, a clause that Parties will endeavour to promote compatibility between regulatory regimes relating to access to data; exchange information on mechanisms with their jurisdictions; and explore ways to extend these or other suitable arrangements to promote compatibility between them.
4. Prevent separate treatment for cross-border flows of financial data

Financial data is an essential component of the functioning of the digital economy and the lifeblood of cross-border e-commerce. Yet, partly out of the experience of the Lehman Brothers bankruptcy, it has been subject to separate carve outs in trade agreements. This is despite the provisions for regulatory access for data that have been discussed, and the existence of prudential exemptions for the banking and financial system.

The imposition of additional data localisation requirements on financial institutions and their data specifically has impacted them in a number of ways. One study found it has limited their competitiveness; raised direct costs, for example by imposing the need to build dedicated data centres in each jurisdiction they operate in; and has potentially slowed the expansion of financial services in developing countries.

The UK’s financial services sector was worth £119 billion in 2017 employing 1.1 million people. The fintech sector is an increasingly central part of the UK’s financial and tech offering — already 2018.62 £119 billion in 2017 employing 1.1 million people.60 Yet both the ITA and the moratorium are not be-all and end-all solutions to the questions of tariffs. Even setting aside the recent imposition of tariffs on ITA covered products by the USA in its trade dispute with China, which opens the USA to the possibility of dispute settlement for contravening WTO rules, the ITA has been relatively inflexible to the swift advance of technology. The 18 years it took to update the product coverage of the ITA, which itemizes specific products for inclusion meant that entire waves of innovation have been, and are continuing to be missed. Already, emerging products such as 3D printers, smart TVs and alternate and virtual reality technologies are not covered under the ITA’s positive list.

As for the moratorium, it has only ever been a temporary measure, subject to renewal at every WTO Ministerial Conference. Though it was renewed at the last meeting, in 2017, it was since come under renewed attack. India and South Africa have called for a “re-think” of the moratorium, citing the potential revenue lost due to the expansion of items electronically transmitted.65 In fact, goods that are readily digitizable of the kind that India and South Africa cite, such as books or DVDs, make up less than 1 per cent of the total goods trade in both developed and developing countries, yielding only around 0.25 per cent of all customs revenues in 2014.44

Ending the moratorium, or defining it in such a way as to open up the contents of electronic transmissions to the imposition of tariffs, would mark the single biggest reversal of trade liberalisation in living memory. With the global sales of the top 10 software companies coming to over $250 billion last year, new digital tariffs could threaten entire digital business models, and increase costs for other rapidly digitizing sectors. More importantly, recent research has shown that the imposition of tariffs on electronic transmissions in developing countries would fail to increase revenue and be “fiscally counter-productive” as it would result in “higher prices and reduced consumption, which would in turn slow GDP growth and shrink tax revenues.” Indeed, in a scenario of reciprocal digital tariffs, India, for example, would lose 49 times more in GDP than it would generate in tariffs.

5. Secure the expansion of the Information Technology Agreement in both geographic and product coverage

An ambitious UK digital trade policy should look to primarily focus on increasing product coverage for the ITA instead of just focusing on expanding the geography of the agreement. Though some large countries like Mexico and Brazil have not signed onto the agreement yet, it is worth noting that 97 per cent of trade in IT products under the purview of the ITA is already covered.51 In the medium-term the UK should work to include an ongoing review mechanism for the ITA as part of the JSI on e-commerce at the WTO to ensure that it is not another 18 years before the ITA is again updated. In the short-term, the UK needs to complement this approach with efforts to diffuse the current tensions placed on the ITA by the current US-China trade dispute.

Within future UK trade deals, it is important to ensure that emerging technology is included as part of tariff liberalisation. Items such as, but not limited to, 3D printers (HS Code 852859, 14 per cent 3rd country duty), lithium-ion batteries (HS Code 850760, 2.7 per cent 3rd country duty) should be tariff free. To prevent the imposition of tariffs on emerging technologies, tariffs should be dealt with using a negative list in future UK trade agreements. This way, only the items that are specifically listed are subject to duties and everything else that is currently being created or imagined, will remain tariff free unless specifically added to that list. This approach will help protect future technologies and emerging industries from the imposition of tariffs by the UK’s trading partners.
6. Make the moratorium on customs duties on electronic transmissions permanent.

The UK should make it a central tenant of its digital trade policy to make the moratorium a permanent feature of the multilateral trading system. This should primarily be done through the WTO by working with likeminded countries to secure a consensus on making it permanent. The e-commerce negotiations offer an unprecedented opportunity to reach an agreement and finally secure a tariff-free future for cross-border electronic transmissions.

In this process, the UK should advocate for a broad definition of electronic transmissions and include the content of those transmissions (i.e. e-books, video, software, etc.). The UK should continue to resist attempts to characterize the moratorium as only covering the transmissions themselves.

Furthermore, the UK should follow best practice in digital trade policy and include a strong commitment in future trade deals to ban the imposition of customs duties in connection with the import or export of digital products transmitted electronically.

This commitment should extend to all digital products regardless of source rather than being limited to just the signatories of the agreement, thus helping embed the moratorium in international law. As Mark Wu has argued, “This approach is highly practicable. In a world where the data necessary to create a digital product can be stored in and flow through various jurisdictions, determining the origin of a digital product can be complicated.” In trying to establish a world-leading digital trade policy, extending an obligation to impose no tariffs on digital products to any country is an important marker of that ambition and commitment to free trade principles.

7. Prevent the mandatory transfer of source codes, algorithms, or encryption keys as a condition of market access.

While innovations in working practices have led to much more intellectual property being co-created via open source software, the reality is that for many businesses their products are a mix between proprietary content and open source. It is therefore worrying that the forced transfer of technology is demanded in certain jurisdictions as a condition of market access.

This is not only the case in China, who was subject to a Section 301 investigation by the Office of the United States Trade Representative into its “Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation.” Indeed, as the Peterson Institute for International Economics summarises: “China has adopted policies deliberately designed to force foreign multinational to transfer strategically sensitive technologies to indigenous Chinese firms.”

It is important that the UK’s digital trade policy is used to protect the IP of innovative UK firms. The UK should work with likeminded countries to ensure that the JSI e-commerce negotiations include robust provisions to prevent the mandatory transfer of source codes, algorithms, or encryption keys as a condition of market access.

Likewise, future trade agreements should include a clause stating that no party shall require the transfer of, or access to, source code of software, algorithms, or encryption keys owned by a person of another party, as a condition for the import, distribution, sale or use of such software, or products containing such software, in its territory. Such a provision would not prevent the provision of source code in commercially negotiated contracts, nor would it prevent requiring the modification of software to comply with a party’s laws and regulations.

The clause should seek to include an agreement that such laws and regulations will not lead to arbitrary or unjustifiable discrimination, or a disguised restriction on trade, and do not impose restrictions that are greater than are necessary to achieve their objectives.

8. Support the development of AI through enabling open government data and text and data mining.

The development of AI has also had implications for intellectual property rights. Access to large data sources are crucial to train AI programs. With 27 MB of data set to be created every second for every human on the planet by 2020, and 90 per cent of all data ever created in the last two years, the ability to analyse and harness that data relies on innovative AI. The results of doing this will be transformative – one estimate is that AI could deliver a $13 trillion of additional economic output by 2030, boosting global GDP by about 12 percent a year.

If the UK aspires to have a world-leading digital trade policy, it is crucial that it looks to these future technologies to promote UK success in this area. One way that the UK government can facilitate the development of AI technology is to build on the gold standard set by the USMCA in future trade deals that commit parties to make government data available to the public in machine-readable and searchable open formats, and allow it to be searched, retrieved, used, reused, and redistributed. Facilitating the provision of accessible, organisable public data will help allow innovative UK AI companies to develop and train their products and deploy them readily in foreign markets.

An additional step that the UK should take to break new ground on digital trade would be to include mutual commitments to allow fair dealing for commercial purposes on material lawfully accessed to help facilitate the use of text and data mining in the training of AI programs and artificial neural networks. This would help drive the development of technologies that can find previously unknown patterns and possibilities in vast data sets, helping to develop predictive analytics. Copies of works and content that are made should only be retained as long as necessary for the text and data mining to train AI and artificial neural networks. Such a commitment should also only apply to works and content that have not been expressly reserved by IP holders in the appropriate manner, such as by machine-readable means in the case of content made publicly available online.
The reality of technological change today means that it will not be tariffs that are the main barrier to digital trade, but regulatory divergence. Across a huge range of areas, Governments are scrambling to understand the implications of new technologies and business models. From what cryptocurrency and fintech mean to banking systems, to the ethical and legal implications of AI and autonomous vehicles, the regulatory landscape for emerging technologies is going to get more complex very soon.

The UK has often been at the forefront of regulatory landscape for emerging technologies and on other multilateral regulatory efforts. Examples of this include OECD principles on AI\(^\text{46}\) and the development of the G20/OECD Policy Guidance on Financial Consumer Protection Approaches in the Digital Age.\(^\text{47}\)

The Financial Conduct Authority’s Regulatory Sandbox has already helped 118 companies over five cohorts test innovative technologies and products actually in the market with real consumers.\(^\text{48}\) These kind of steps have clearly demonstrated the role that regulators can play in encouraging innovation.\(^\text{49}\) In the AI sphere, the creation of the Centre for Data Ethics and Innovation as the world’s first body to be dedicated to fostering the UK’s use of data and AI, will help cement the UK’s leadership in this field.\(^\text{50}\)

But if these innovative regulatory approaches are not replicated elsewhere, then UK tech firms will find themselves unable to export their products abroad without significant modification. While a trade agreement is not the appropriate avenue to attempt substantial modification. While a trade agreement is not the appropriate avenue to attempt substantial modification.

Trade agreements should also include commitments to cooperate and maintain a dialogue on the promotion and development of mechanisms that facilitate the interoperability of regulatory regimes and on other multilateral regulatory efforts. Examples of this include OECD principles on AI\(^\text{46}\) and the development of the G20/OECD Policy Guidance on Financial Consumer Protection Approaches in the Digital Age.\(^\text{47}\)

The UK should also seek other means to expand the access for innovative UK firms. One example of this can be seen through the UK “Fintech Bridges”, agreed with Hong Kong, South Korea, Singapore, China and Australia.\(^\text{49}\) These agreements help secure access of UK fintech companies into the regulatory sandboxes of other countries, helping them establish an international footprint at an early stage.\(^\text{50}\) They also help facilitate common approaches to the regulatory challenges raised by emerging financial technologies, helping ensure that non-tariff barriers will not be erected at a later point.

The UK should continue to negotiate “Fintech Bridges” with other important and emerging markets and explore ways this approach could be expanded into other sectors.

9. Establish cooperation on the regulation of AI, fintech and other emerging technologies

In future UK trade agreements, it should be an aim to support the growth of emerging technology companies by establishing frameworks for cooperation in the development of regulation. These should include specific provisions to maintain a regulatory dialogue including the sharing of information, experience, laws, regulations, implementations, compliance and best practices. There should be a commitment highlighting both the specific regulatory bodies that should be in dialogue, for example privacy commissioners, as well as across technologies where they may not be a specific regulator in place.

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10. Establish cooperation on cybersecurity issues with an emphasis on a risk-based approach

In a complex, interconnected world, good cybersecurity plays a central role and this importance is beginning to demonstrate itself in digital trade policy. The cost of cybercrime is significant – over 60 per cent of large businesses reported having cyber security breaches or attacks in 2018.\(^\text{51}\) The most recent National Crime Agency and National Cyber Security Centre report on cybercrime notes that between 2016 and the end of 2017 there were 34 significant cyber-attacks (i.e. those requiring a cross-government response) with a further 762 less serious incidents. They further note an expectation that “the race between hackers’ and defenders’ capabilities will increase in pace and intensity.”\(^\text{52}\)

Meanwhile, the UK has a leading cybersecurity sector, with annual revenues of £5.7 billion and a total GVA contribution of £2.3 billion in 2015-16.\(^\text{53}\) The Government’s 2016 National Cyber Security Strategy committed £1.9 billion over five years to both help make the state more resilient to attacks and to promote the growth of the domestic sector through measures such as cyber innovation centres on allocated innovation procurement funds.\(^\text{54}\)

Yet despite this, no current UK trade agreement includes cybersecurity provisions. The UK should help support the development of the domestic cybersecurity sector and promote common approaches to cyber issues through its digital trade policy. UK digital trade policy should build on the gold standard established by USMCA by recognising that risk-based approaches relying on consensus-based standards and risk management best practices are the most effective way to deal with cybersecurity threats and encourage enterprises within the jurisdiction of the parties to instead take that approach.

Furthermore, future trade agreements should include provisions to strengthen collaboration and cooperation in the identification and mitigation of cybersecurity threats and enable the sharing of information and best practices.

Trade Facilitation

11. Standardise minimum di minimis thresholds to facilitate e-commerce

12. Secure recognition of e-signatures and expansion of paperless trading

Digital trade policy has an important role in facilitating other forms of trade. For example, e-commerce platforms have opened access to international markets for UK SMEs, helping them export at far higher rates than brick and mortar small businesses. Indeed, 91 per cent of SMEs on eBay with sales of more than £6,400 were exporting in 2015 on average to 20 different countries annually, compared to an export rate of just 28 per cent for traditional stores.\(^\text{55}\) Reducing trade costs for the delivery of small packages, and standardising these internationally, would make it significantly easier for small businesses to export using digital platforms.

Likewise, simple digital technologies have increased the ease of doing business across borders. While previously, the conclusion of contract negotiations often meant they had to be physically signed and sent to other parties, now it is possible to use e-signatures and digital signatures to massively cut the times required to seal a deal. One company reduced the...
As part of its digital trade policy, the UK should seek to ensure that other countries’ DMT are at a comparable level to the UK’s to ensure a level playing field for UK e-commerce exporters. The UK currently charges no customs duty on any goods under £135 and no VAT for goods under £15 (rules differ for gifts). Furthermore, the UK should work with international partners at the WTO and WCO to seek an alignment on DMTs and related customs declarations for small items to reduce trade costs for consumers and businesses.

12. Secure recognition of e-signatures and expansion of paperless trading

The UK should seek to use its digital trade policy to advance the recognition and adoption of paperless trading and e-signatures, helping reduce trade costs across global supply chains. This should include specific provisions in future trade agreements that ensure:

- Non-discrimination and functional and legal equivalency for trade administration documents submitted electronically;
- Non-discrimination and functional and legal equivalency for contracts concluded electronically and those using e-signatures and electronic authentication;
- Technological neutrality in legislation in the use of e-signatures and electronic authentication;
- A commitment to the use or introduction of electronic single windows for trade processes and that trade administration documents should be available to the public electronically; and
- A regulatory dialogue between trade administration bodies encouraging cooperation in the implantation of paperless trading.

Additionally, the UK should build off the WTO Trade Facilitation Agreement and seek to encourage countries to implement its provisions, especially relating to paperless trade. The UK should also work with international partners at the WTO and WCO, as well as through the United Nations Commission on International Trade Law (UNCITRAL) and UN Centre for Trade Facilitation and Electronic Business (UN/CEFACT) to continue to push for the development of new best practices in paperless trading and develop new innovation friendly model regulations.

4. Supporting Digital Trade

Trade agreements include more than the digital trade chapter and, likewise, the UK’s digital sector rely on a range of different provisions if they are to successfully trade. Whether it is the right to establish in a country without onerous conditions or the ability to move workers from the UK to be part of a local team, and many things in between, future UK trade agreements should include comprehensive provisions to support its businesses. These should include reference to:

- Services
- Telecommunications
- Limitations to Liability
- Government Procurement
- Standards
- Rules of Origin

Services

The technology sector in the UK is dominated by services. As Frontier Economics’ report for techUK, “The Digital Sectors After Brexit” found, 96 per cent of the sector’s output and 81 per cent of its exports are spread across services activities.104 Getting services right in trade agreements is going to be essential if the UK tech sector is going to benefit from the country’s trade policy.

The most digital heavy exports, (telecommunications, computer and information services), were worth over £20 billion to the UK in 2017. However, the scale of digital dependent exports is far greater, with financial, insurance and pension services and many other business exports dependent on international data flows and delivery over ICT systems. These sectors in turn accounted for a further £158 billion in exports in 2017.105

In addition to the many digitally specific barriers to trade in services, such as data localisation requirements or regulatory divergence that are dealt with above, there are a range of other non-sector specific barriers as well. These include requirements for local presence, a highly restrictive measure for online-only businesses. Similarly, local content requirements, most often used for manufactured goods such as cars, are in some jurisdictions applied to software, in particular as part of procurement processes. These local content requirements can also oblige firms to use local engineering and installation services.106

A UK digital trade policy should ensure that local presence and local content requirements are eliminated in future trade deals. It should ensure that UK services exporters are dealt with under the principles of National Treatment and Most Favoured Nation.

Mobility

Mobility is key barrier to the export of services. While many services can be delivered over the internet, these are often underpinned by the need for staff to be on the ground either short-term or long term. For example, a cloud computing service provider may need to send engineers into a country to repair its servers. Restrictions and bureaucratic requirements directly lead to increased costs and delays for businesses. In a competitive and fast-moving sector, the ability to recruit talent easily and move them within a business is critical and, as techUK has previously argued, there is much space to improve the UK’s immigration system.
professionals. As other countries pursue similar security profession, including on proposals Digital, Culture, Media and Sport in 2018 ran recognition. For example, the Department for as tech roles receive greater professional Mutual recognition of qualifications is another for long-term migration. 

Agreements. The UK should look to secure more short-term movement and long-term migration (facilitating the movement of people (both professionals, through areas like medtech, fintech these are mutually recognized and align with initiatives it will be important to ensure that they are subject to some of the most protectionist requirements and anti-competitive policies The UK’s telecommunications sector is highly competitive, with exports of £6.4 billion in 2017 of which 58.6 per cent were to non-EU countries The intention of the EU to review and sharpen existing WTO telecommunications rules as part of the WTO e-commerce negotiations is to be welcomed. Future UK trade agreements should seek to liberalise telecommunications trade in a number of ways: • ensure that the definitions of public telecommunications networks and/or services must include an explicit reference to business to business suppliers; • enhance non-discrimination clauses for wholesale access, including an obligation on domestic suppliers not to discriminate in favour of their own downstream business, to ensure consistent, pro-competitive regulation of business grade wholesale access; • ensure that UK providers enjoy the same rights to offer services and trade on equivalent terms as domestic providers, including not facing additional licensing or domestic ownership requirements; • remove geo-blocking restrictions, allowing the transfer of content across borders; • include direct, indirect and common costs, as well as a reasonable rate of return, where cost-oriented rates are applied. Such rates shall not include costs not related to the provision of public telecommunications services; and • ensure that competent regulatory authorities should be fully independent and impartial, with appropriate enforcement powers and appeal mechanisms. Their powers and standing should be mutually recognised and there should be mechanisms in place for ongoing regulatory dialogue to exchange best practice with a view to ensuring consistency of approach.

Future UK trade agreements should not jeopardise the light touch regulatory approach which has helped position the UK as an enabling regime for digital and which is particularly important for emerging services, such as IoT and 5G. This approach should apply to telecommunications services. 

Limitations to Liability

The principle of limited liability for online intermediary activities is established in the UK under the European Union e-Commerce Directive (Directive 2000/31/EC (ECD)) and implemented in the UK under the Electronic Commerce (EC Directive) Regulations 2002. This directive forms a long-standing, core component of the legal framework that underpins the internet and has been fundamental to the growth of the UK’s digital economy. It has allowed a diversity of intermediaries to become established and grow, and has provided previously unimaginable opportunities for people and businesses to access new markets. Under these regulations, there is no blanket exemption from liability stemming from online services. Instead liability is limited and conditional. Crucially, the regime is activity based, not business-model specific, so where a limitation to liability exists, it applies to a specific activity, not the entity as a whole or economic sector. Future UK trade agreements must adopt provisions that commit parties to principles on intermediaries limited liability equivalent to those set out in the USMCA.

UK consumers and small businesses increasingly leverage a wide array of comparison websites, customer support tools, and marketing platforms to reach far beyond their local markets. For these trade-enabling online services to function, UK firms need some level of assurance that they will not be held liable for communications that arise between businesses and consumers using these tools, particularly where firms take appropriate action upon notice of illegal content. The UK should work through bilateral agreements and the WTO JSI proceedings to establish predictable non-IP safe harbours that allow online services to serve this trade-enabling function, while at the same time encouraging firms to work with public authorities to ensure a safe online environment. Domestically, the UK should continue to maintain a viable, clear liability framework for online services.
Government Procurement

Governments are key customers of digital technologies. From traditional areas such as communications equipment and database services, through cybersecurity products and CRM systems to emerging areas like the use of AI in decision making or diagnostic healthcare, Governments increasingly need a huge range of tech products. This is an area where the UK is a leading player. The UK Government has been a pioneer in the development of e-procurement, for example through its Digital Marketplace. This saw sales of £2.03 billion in 2018/19, with almost 40 per cent through SMEs. Initiatives like NHSX, which seeks to drive the digitisation of healthcare in the UK, help to chart a course of public and private collaboration that can deliver improved services through the use of digital technologies.

There is a major opportunity for UK businesses in opening up foreign procurement markets. A recent report estimated that the UK Govtech market will be worth £20 billion by 2025. Expanding export opportunities will further support the growth of this sector. Already, the UK Government has secured its continued membership of the WTO Government Procurement Agreement (GPA) after it leaves the European Union. This secures UK firms’ access to a procurement market worth $1.7 trillion annually in 48 countries.

If the UK negotiates its own free trade agreements, then it can secure deeper access to government procurement contracts. For example, while the USA opens up procurement contracts worth $837 billion to foreign competition through the GPA, there is a further $898 billion that is not currently included. But through an FTA, the UK could receive exemptions to these restricted areas to enable firms to bid into these contracts.

The UK’s digital trade policy should follow the following principles to ensure that the UK tech sector can benefit from future procurement opportunities:

• Non-Discrimination - UK firms offering goods and services should receive treatment no less favourable than those of a supplier from the other Party. This should include treating a locally established supplier no less favourably than another locally established supplier on the basis of UK ownership or affiliation. Nor should another Party discriminate against a locally established supplier on the basis that the goods or services offered by that supplier for a particular procurement are goods or services of the UK.

• Broad Definitions - Definitions should include goods and services, ensuring subscription services, for example to software or cloud storage, are included as well as just one-off procurement costs.

• Access to different levels of public procurement - As well as national/federal public procurement, future trade deals should provide access to local, municipal and regional (State, Province, Devolved Authority etc.) procurement.

• Single Window Portals - Agreements should encourage all covered procurement to be accessible online through single window portals, including the publication of procurement information, notices, and tender documentation, and for the receipt of tenders. These IT systems and the software behind these portals should be generally available and interoperable with other generally available IT systems and software.

• Lower Threshold Limits - The thresholds for procurement that is covered by an agreement should be set at such a level as to open further opportunities for SMEs to bid for.

• No Separate Rules of Origin - For the purposes of covered procurement, a Party shall not apply rules of origin to goods or services imported from or supplied from the other Party that are different from the rules of origin the Party applies at the same time in the normal course of trade to imports or supplies of the same goods or services from the same Party.

Standards

Voluntary, industry led product standards play a significant role in the technology sector, helping to provide security, interoperability and management systems amongst many others. The result is a significant value added from the goods or services of the UK.

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Rules of Origin

Technology products are incredibly complex and draw on a wide supply chain. Apple, for example, has a network of over 200 suppliers in 43 different countries in its supply chain. Many of the components featuring in a laptop or a smartphone would have crossed international borders many times, especially when their raw materials are taken into account. With more traditional sectors, such as the automotive industry, now also including more tech components such as screens and sensors, this picture has gotten more complex.

For goods to be subject to preferential tariffs, it needs to be demonstrated that they were either substantially made or substantially altered in the country they are being exported from. The rules governing this are known as Rules of Origin and these can be complex and costly in either time or money to comply with. The result can sometimes be that companies choose to pay a higher tariff to avoid the compliance costs, especially if a products supply chain was particularly complex.

It is crucial that the Rules of Origin in future UK trade agreements are flexible and subject to reasonable local content thresholds to enable technology products to make use of them. The UK should also consider, where possible, to reach agreement on diagonal cumulation with third countries to facilitate the growth of supply chains.

In total 95 per cent of UK standards are international or European standards.
5. Summary of Recommendations

Digital Protectionism
- In the context of access and through bilateral and regional trade agreements, it will be important that the UK is a strong and consistent voice in favour of combating protectionism, which costs businesses and consumers and threatens economic growth. It should be a firm advocate of removing restrictions to trade and preventing the rise of new barriers as the global economy adapts to the digital world.

Multilateral Digital Trade Policy
- While it is unlikely that TISA will be revived any time soon, talks should restart then the UK should join the negotiations as a participant in its own right.
- The JSI marks the most promising opportunity to agree global rules in digital trade and after Brexit the UK should participate as an independent WTO member and work towards an ambitious and inclusive outcome.

Digital Trade and Development
- As the UK embarks on its own trade policy, it is important that the UK recognises the links between its digital aspirations and international development.
- Building off the Department for International Development’s “Digital Strategy 2018-2020”, the UK should help support transitions into participation in GVCs and the digital economy.

Digital Trade in FTAs
- The UK should seek to ensure that it follows best practice and include a robust digital trade chapter in its future FTAs.
- The UK should also closely examine, and consider seeking to join, the new talks between New Zealand, Chile and Singapore on a Digital Economy Partnership Agreement.

Digital Trade in other Fora
- The UK should ensure it is a proactive leader in international fora such as the G20 and OECD in pushing for steps that facilitate and enable digital trade.

Enable the Cross-Border Flow of Data without compromising data protection standards
- Ensure that all parties are encouraged to adopt or maintain a legal framework providing for the protection of personal information.
- Ensure that parties must publish clear and accessible information and guidance available online on how businesses can comply with the legal requirements of the data protection frameworks and how individuals can pursue remedies.
- Include provisions to oblige the existence of onward transfer mechanisms for personal data in full compliance with applicable data protection rules.
- Include a strong commitment that parties shall not prohibit or restrict the cross-border flow of data and information.
- The UK should ensure that provisions and commitments on the cross-border flow of data are subject to dispute resolution.
- The UK should ensure that any commitment it makes in future trade agreements does not jeopardise a future UK-EU Mutual Adequacy Agreement.

Prevent the Forced Localisation of Data
- The UK should ensure it includes a reciprocal commitment in future trade agreements that ensures that no party shall require the use of computing facilities or their location in a Party’s territory as a condition of market access.

Facilitate Regulatory Access to Data
- The UK should ensure that it complements trade negotiations with talks on new mechanisms of cooperation between the Parties, or on the UK’s accession to existing mechanisms. A trade agreement should include, where a separate agreement is not already in place, a clause that Parties will endeavour to promote compatibility between regulatory regimes relating to access to data, will exchange information on mechanisms within their jurisdictions and explore ways to extend these or other suitable arrangements to promote compatibility between them.

Prevent separate treatment for cross-border flows of financial data
- It should be a key UK priority to ensure that financial data is not subject to separate carve outs in future trade agreements to increase competitiveness and growth in this area.

Secure the expansion of the Information Technology Agreement in both geographic and product coverage
- An ambitious UK digital trade policy should look to primarily focus on increasing product coverage for the ITA instead of just focusing on expanding the geography of the agreement.
- In the medium-term the UK should work to include an ongoing review mechanism for the ITA as part of the JSI on e-commerce at the WTO to ensure that it is not another 18 years before the ITA is again updated. In the short-term, the UK needs to complement this approach with efforts to diffuse the current tensions placed on the ITA by the current US-China trade dispute.
- Within future UK trade deals, it is important to ensure that emerging technology is included as part of tariff liberalisation.
- To prevent the imposition of tariffs on emerging technologies, tariffs should be dealt with using a negative list in future UK trade agreements.

Make the moratorium on customs duties on electronic transmissions permanent
- The UK should make it a central tenant of its digital trade policy to make the moratorium a permanent feature of the multilateral trading system.
- The UK should advocate for a broad definition of electronic transmissions and include the content of those transmissions (i.e. e-books, video, software, etc.). The UK should continue to resist attempts to characterize the moratorium as only covering the transmissions themselves.
- The UK should follow best practice in digital trade policy and include a strong commitment in future trade deals to ban the imposition of customs duties in connection with the import or export of digital products transmitted electronically.
- This commitment should extend to all digital products regardless of source rather than being limited to just the signatories of the agreement, thus helping embed the moratorium in international law.

Prevent the mandatory transfer of source codes, algorithms, and encryption keys as a condition of market access
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Support the development of AI through enabling open government data and text and data mining
- One way that the UK government can facilitate the development of AI technology is to build on the gold standard set by the USMCA in future trade deals that commit parties to make government data available to the public in machine-readable and searchable open formats, and allow it to be searched, retrieved, used, reused, and redistributed.
- An additional step that the UK should take to break new ground on digital trade would be to include mutual commitments to allow fair dealing for commercial purposes on material lawfully accessed to help facilitate the use of text and data mining in the training of AI programs and artificial neural networks.

Establish cooperation on the regulation of AI, fintech and other emerging technologies
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- Trade agreements should also include commitments to cooperate and maintain a dialogue on the promotion and development of mechanisms that facilitate the interoperability of regulatory regimes and on other multilateral regulatory efforts.

Intellectual Property
- Any future trade deal should ensure that it does not threaten the UK’s membership of the Unified Patent Court and the European Patent Convention.

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Secure recognition of e-signatures and expansion of paperless trading
• The UK should seek to use its digital trade policy to advance the recognition and adoption of paperless trading and e-signatures, helping reduce trade costs across global supply chains.
• The UK should build off the WTO Trade Facilitation Agreement and seek to encourage countries to implement its provisions, especially relating to paperless trade. The UK should also work with international partners at the WTO and WCO, as well as through the United Nations Commission on International Trade Law (UNCITRAL) and UN Centre for Trade Facilitation and Electronic Business (UN/CEFACT) to continue to push for the development of new best practices in paperless trading and develop new innovation friendly model regulations.

Services and Mobility
• A UK digital trade policy should ensure that local presence and local content requirements are eliminated in future trade deals. It should ensure that UK services exporters are dealt with under the principles of National Treatment and Most Favoured Nation.
• Facilitating the movement of people (both short-term movement and long-term migration) should be an objective of future trade agreements. The UK should look to secure more generous visas as part of UK trade agreements, for example building on provisions that allow for short term mobility, such as those allowed under CETA, and carving out new pathways for long-term migration.
• Provisions on the mutual recognition of qualifications should be a central objective of any future UK services chapter.
• It is important that any services chapter should be in the form of a negative list.

Telecommunications
• Include an explicit reference to business to business supplies.
• Enhance non-discrimination clauses for wholesale access.
• Ensure that UK providers enjoy the same rights to offer services and trade on equivalent terms as domestic providers.
• Remove geo-blocking restrictions.
• Include direct, indirect and common costs, as well as a reasonable rate of return, where cost-oriented rates are applied.
• Ensure that competent regulatory authorities should be fully independent and impartial, with appropriate enforcement powers and appeal mechanisms.
• There should be mechanisms in place for ongoing regulatory dialogue to exchange best practice with a view to ensuring consistency of approach.

Limitations to Liability
• Future UK trade agreements must adopt provisions that commit parties to principles on intermediary limited liability equivalent to those set out in the USMCA.
• The UK should work through bilateral agreements and the WTO JSI proceedings to establish predictable non-IP safe harbours that allow online services to serve this trade-enabling function, while at the same time encouraging firms to work with public authorities to ensure a safe online environment.
Domestically, the UK should continue to
• Ensure that competent regulatory authorities to ensure a safe online environment. Domestically, the UK should continue to maintain a viable, clear liability framework for online services.

Government Procurement
• UK firms offering goods and services should receive treatment no less favourable than those of a supplier from the other Party.
• Definitions should include goods and services, ensuring subscription services, for example to software or cloud storage, are included as well as just one-off procurement costs.
• As well as national/federal public procurement, future trade deals should provide access to local, municipal and regional (State, Province, Devolved Authority etc.) procurement.
• Agreements should encourage all covered procurement to be accessible online through single window portals, including the publication of procurement information, notices, and tender documentation, and for the receipt of tenders.
• The thresholds for procurement that is covered by an agreement should be set at such a level as to open further opportunities for SMEs to bid for.
• For the purposes of covered procurement, a Party shall not apply rules of origin to goods or services imported from or supplied to the other Party that are different from the rules of origin the Party applies at the same time in the normal course of trade to import or supplies of the same goods or services from the same Party.

Standards
• It is important that the approach to product standards, regulation and certification adopted in future UK trade agreements should not jeopardise the UK’s continued membership through the BSI in CEN and CENELEC.
• Future UK trade agreements should include measures to expand the mutual recognition of conformity assessment bodies, certifications and regulatory standards (as opposed to product standards) to minimise burdens on businesses.

Rules of Origin
• It is crucial that the Rules of Origin in future UK trade agreements are flexible and subject to reasonable local content thresholds to enable technology products to make use of them. The UK should also consider, where possible, to reach agreement on diagonal cumulation with third countries to facilitate the growth of supply chains.