

BORDER MANAGEMENT TODAY

Issue 004 | May 2020

EU SMART BORDERS:

THE DIGITAL CHALLENGE

Can industry deliver?

EVENTS UPDATE:

We'll meet again, we say where, we say
when (we hope)

SHIFTING BORDERS:

From land to sea, the Irish Border
dilemma goes on

COVID-19 AND BORDERS:

How has the global border community coped,
and what's next for Borders?

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Message from the Chairman

In these extraordinary times, I am delighted to be able to present you with our fourth edition of "Border Management Today". At the time of publication most of our audience are probably subject to "lockdown" restrictions due to the COVID-19 virus; so I do hope our magazine will provide you with some interesting and thought provoking reading on the state of current and future Border Management, from the very best border experts across the globe.

We open with some fascinating insights on the global border response to the pandemic from 2 former leaders of national Customs Organisations on opposite sides of the world. Judge Rob Bonner, my friend and co-chair of the International Summit on Borders for the past 4 years and former US CBP Commissioner, prefaces a piece from our ISOB Advisory Board colleague Martyn Dunn, former Head of New Zealand Customs. Wise words indeed. As our members know, the whole foundation of IBMATA is based upon the quest for global collaboration on end to end border management at national and international level; a light that shines brightly through both pieces.

As you might expect, the challenges posed to Border Agencies by this pandemic feature in several of our member's articles. In



particular, the ongoing challenges posed by the growth in e commerce and maintaining the integrity of the supply chain – something also crying out for global collaboration and best use of technology. On the traveller side, we also look at the potential digital and biometric solutions to deliver a "touch free" border crossing of the future.

Moving away from the immediate challenge of coronavirus, our good friend and partner Gloria Guevera from the WTTC looks at previous responses to crises in the travel industry; and Shanker Singham, Lars Karlsson and Daniel Gottschald (all global experts in their field) pave the way for global economic recovery through the development

of Special Economic Zones. This theme is continued by Richard Gutsell on the potential expansion of freeports.

I am particularly grateful to our good friend Krum Garkov, Director General of EU LISA, for his feature contribution on the future EU Border. His challenge for our industry members on an “end to end” solution is there for all to see.

So now Brexit is done (or is it) what next for the Irish Border? Again, we are delighted to bring you 2 different perspectives from renowned experts in their fields. Hans Maessen brings his latest perspective to the Customs Challenge posed by the Northern Ireland Protocol; and Katy Hayward from Queens University in Belfast brings her own perspective on the latest dilemma.

We are always keen to hear from our members from the world of

academia; so I was delighted to oversee some research work with our friends at the Middle East and North Africa Affairs Faculty (MENAF) at Cambridge University on a study of Border Management in the MENA region. We hope this research will lead to some innovative solutions, even at the some the hardest borders in the world; as we know, anything is achievable with political goodwill and a higher common purpose on both sides.

Finally, please spare a thought for our team here at IBMATA. Our events Director Martyn Hill sets out the recent and ongoing challenges for the international events industry, which has hit us hard in recent months and remains a challenge. As a non-profit organisation we rely upon our events and sponsorship as a critical revenue source to cover our costs. We are therefore

especially grateful to our prolific supporters from the Border Management Industry for keeping us afloat during these difficult times.

We’ll meet again – don’t know where, don’t know when – but I know we’ll meet again some sunny day! To all our IBMATA family out there – stay safe and stay well. Happy reading.



Tony Smith, CBE
CHAIRMAN at IBMATA

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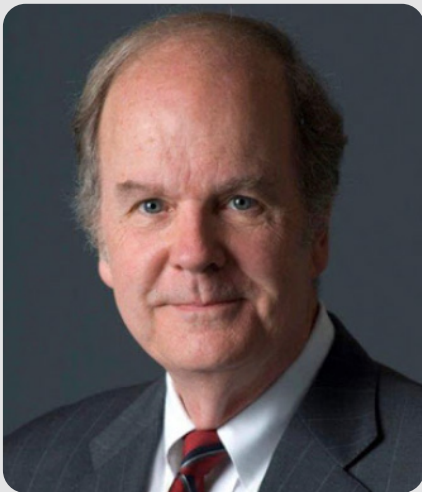
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Feature: how serious is this? – implications for borders beyond Covid-19

Preface by Robert C Bonner



Martyn Dunne is one of the foremost policy thinkers when it comes to border management and controls. His article titled *How Serious is This? – Implications for Borders Beyond COVID-19* (below) is both brilliant and timely. We can only hope it will be heeded.

The reaction to COVID-19 so far has been to shut down borders to all but essential travel. International travel and tourism have come to a complete halt. In the EU, the Schengen agreement has been tested as never before. The U.S. has restricted travel from Canada and Mexico and other areas of the world. Political leaders have been criticized for not shutting down borders and non-essential businesses faster. The airlines have been hit harder by the COVID pandemic than they were

after 9/11. The economic impact of largely unilateral decisions by governments around the world has been devastating, not just on the airlines and travel industry, but on the global economy, broadly writ.

As Mr. Dunne's article points out: we - individual governments and international institutions - were woefully unprepared. And the response, for the most part, has been for each country, unilaterally to go its own way, notwithstanding that the corona virus is a "pandemic" affecting and impacting one nation after another like so many falling dominos. Every nation has an interest in handling such pandemics better, and less disruptively, next time. And there will be a next time. We have experienced a global pandemic involving a novel flu-like virus almost once a decade since the end of World War II.

In the aftermath of 9/11, which caused the airline and travel industries to nose dive, there was a collaborative multinational effort to use technology and smart border programs to facilitate the movement of legitimate travellers and trade. And it has worked. International organizations such as the World Customs Organization (WCO) and the International Civil Aviation Organization (ICAO) were instrumental in promoting a more unified

multilateral approach, that very much advanced "connected solutions" through sharing of data, mirror-imaged regulations, common standards for screening passengers and cargo, and identifying the small percentage of inbound cross-border travellers who actually pose a risk (but not everyone). At no time were our borders in the post-9/11 more shutdown to the legitimate cross border movement of people than they are now. We need to have the equivalent of the WCO's SAFE Framework for cargo in place for the cross-border, safe movement of people when the next pandemic hits.

What would this mean? Rather than closing borders to all travel from certain areas, we can be a lot smarter about who poses a threat. Only those who have the virus or have been in areas where it is prevalent need to be tested before travel. For those, this would mean obtaining and presenting, not just a passport, but a health certificate before departure, and at least the absence of symptoms. On the receiving end, risk assessment can and should be used to identify high risk travellers (still a small percentage) and briefly quarantine through testing those presenting symptoms. External, non-intrusive temperature reads have been used in prior pandemics including the H1N1

pandemic of 2009 and ought to be used multi-nationally, both outbound and inbound, during pandemics. Obviously, any passenger showing symptoms should not be allowed to board a plane, or if on arrival, should be briefly detained and tested before entry is allowed. At or near the arrival airports, there would be facilities to quarantine for two weeks those who test positive. We are perfectly capable of this dual level screening, departure/arrival, as it has been done routinely after 9/11 for those presenting a terrorist threat. The pre-screening aspect of this has included, e.g., the posting of U.S. border personnel at the major foreign airports of the world. This approach would entail the use of automated risk

assessment for a pandemic virus, and at a minimum the sharing of data from the country of origin and the country of destination, all of which is currently done for people posing other types of non-health-related threats. Because border agencies already have substantial data on air passengers, border and health officials are also able to quickly track those have been exposed to an infected passenger and test them. But we will need greater training and expertise at border control agencies working with health officials if we are to do better next time. We also need the quarantine space proximate to our international arrival airports.

The foregoing is not exhaustive, of course. Yet being prepared and

having the ability to cooperatively identify the small percentage of infected and symptomatic travellers, both inbound and outbound, could well obviate the need for the type of extreme border shutdowns that we have seen in the last two months; shutdowns that have already struck a crushing blow to the world economy.

Robert C Bonner is a former United States District Judge, former Administrator of the Drug Enforcement Administration, former Commissioner of United States Customs and Border Protection and co-chair, International Summit on Borders.

HOW SERIOUS IS THIS? – IMPLICATIONS FOR BORDERS BEYOND COVID-19



By Martyn Dunne

Much will be written in the months ahead about the effects of COVID-19 on Border operations. One thing for sure is the status quo will not prevail. If there are influences that might herald this, then here are some threats and opportunities to benchmark for a more progressive future.

Globalisation and the Survival of Institutions
Isolation v Multilateralism
Technology and Connectivity
Trade and Economic Facilitation
Leadership beyond Crisis

Globalisation and the survival of Institutions

The presence of the current pandemic across the globe in all but small pockets of innocence, has forced nations and institutions to turn inward to confront the enemy within. Unlike 9/11 whereby the world took a global approach to counter terrorism and the enduring security element of border operations, the wrestling with pandemics such as COVID-19 has forced a review of the merits of globalisation. The prospect of even tighter restrictions for travel, trade and connectedness loom likely. We run the risk of an increase in nationalism. If the efforts against illegal entry across borders was the benchmark, then pandemic protection will likely

ensure even greater barriers. Justified or otherwise.

The likelihood of questions concerning the efficacy of the EU and its structure post BREXIT and COVID-19, along with the utility of the UN, WHO and other international institutions, such as our own WCO, should be resisted. These organisations have benefited the functions they represent at a time when we need even greater coordination. None more so than the requirement to broaden the outreach of the WCO, its role and leadership. Especially in defining the shape of border operations where security becomes paramount along with traditional regulatory benchmarks. Let's not waste this crisis. To

FEATURE - COVID-19

achieve this may necessitate the re-examination of institutions and their roles to ensure a full range of capabilities are considered – not less. Undoubtedly these organisations will have to refine and, where necessary, restructure their purpose and delivery.

The lessons learned from, for example; war, terrorism, disease, climate change and their consequential determination to view threats as best tackled in a joined-up way, has led to a better outcome for all. To withdraw from such an approach because there were not enough resources to support the current pandemic would be unfortunate. Greater strides have been made from sharing information and technology than by relying on single sources of science, technology, logistics and untested solutions. Understandably having enough tools to do the job are fundamental; but that should not be confused with taking a global view of available information and the means of production.

A narrower approach will mean that Border agencies may be tasked, in the interim, with imposing tighter restrictions for travel and trade as it affects people, goods and craft. An example of such a situation was presented at the 2018 ISOB Summit whereby Biosecurity, including Pandemic risk was canvassed. Now we face a direct threat to our economies and way of life from such threats. While use of technology and increased human intervention by border resources are inevitable, there will need to be a mix of a soft and hard touch to solutions, if freedom of travel and trade is to endure.

Isolation versus multilateralism

The above conundrum is similar to the effects of globalisation and its opposing interests. Isolation is the breeding ground for repressive and regressive progress. Understandably the requirement to isolate and contain disease, illicit drugs and other potential threats cannot be ignored. However, when such a genre endures the often downsides are diminished freedoms, reduced democratic engagement and increased prospect of over zealous policing. Notwithstanding, the eventual denigration of state institutions, the reduction in innovation and services impacts the very people such closed-door policies were attempting to improve. The largest casualty of this behaviour is multilateral engagement. For border regulations and compliance, the demise of international benchmarks and agreed systems would reflect a serious deterioration in trust. The very issues multilateralism is designed to overcome.

Connectivity and the utility of technology

In recent years huge progress has been made in technology to manage border activities. Whether these be for border entry, trade facilitation or tracking of craft. In the main these are all available in soft touch identification and verification methods. However, as COVID-19 shows, where there is an unidentifiable threat, not unlike terrorism, the urge to slow processes for human

identification and intervention increases. The challenge for technology is to overcome that fear without causing longer queues at borders. Where multilateralism suffers from the requirement to close borders, the risk to the free flow of goods and greater intervention in methods and numbers of travellers, technology that has been agreed globally, can act as a viable and safe coagulation of processes.

By far the preferable approach to introduction of technology should ensure that the problem it tries to solve can be universally agreed while allowing commercial interests to survive. This is especially so for automated entry across borders for all border activities. The role of the WCO in defining requirements in this area might provide a valuable and synergistic solution to more satisfactory and expeditious initiatives. Equally the commercial cost of utilising technology will need to be kept in check to ensure the broadest and deepest uptake in economies where competing interests are often seen as having higher requirements. Pandemic planning in less economically viable states has demonstrated the porosity of borders and the increase of threats to national stability. Increasing compliance and wherewithal from internationally focused border leaders becomes fundamental to closing the gaps.

The beneficiary of well-balanced technology alongside sound regulations, compliance and international harmony in times of plenty, is counter intuitive in periods where global threats result in the inevitable reduction

of connected solutions, sharing of information, intelligence and compliance. The safety of citizens, their prosperity and wellbeing, becomes secondary, inward and survival focused, rather than outward looking. Notwithstanding, the utility of technology can ensure connectedness and the combined resolution of internationally complex transactions.

Trade and economic facilitation

In the past twenty years trade and its facilitation have benefited from a range of expeditious rules. Despite the security requirements post 9/11, we have learned to live with the requirement to comply with international and national demands. Technology has played a massive part in enabling this. In times of crisis the need for assured flows of goods across borders will become fundamental to correcting the potentially catastrophic blow to world and nation state economies. Border agencies, their regulations, compliance and facilitation can assist in the recovery of economies currently suffering massive shocks to supply and national wellbeing.

Ensuring that illicit goods, counterfeit products, the value and origin of products are all

addressed will be part of the mix in returning economies to equilibrium. The balance in doing so will need to encompass a range of security and health issues in the current pandemic environment. Technology can expedite this, coupled with resolute and well-trained staff. The sudden, although temporary demise of international travel and tourism, will allow an increased focus on a broader range of facilitation and allow valuable opportunity and time to address lessons learned from the pandemic and the implementation of forward looking yet enhanced solutions. To achieve this will require a mix of science, policy and above all leadership.

Leadership through and Post Crisis

If nothing is to change in the way we operate post COVID-19, it will be an opportunity lost. The need to learn the inherent lessons and where necessary reinvigorate international institutions will require sound inspiring leaders. There will be some beacons of inspirational leadership throughout any crisis where others will fail. Focus should be on outcomes achieved and the means employed to steady approaches being used that define an enlightened way forward.

International institutions must prevail but where they have failed or gone to ground, they must be reorganised, refocused and set on a pathway of renewal. Where outcomes are weak or maintain the status quo, such vested interests will have missed an opportunity for change. Nationalism closes off innovation and enhances parochialism at the expense of well managed and led interaction across borders. Sound informed leadership has shown throughout history to have been the solid foundation on which all progress has won out.

Martyn Dunne, CNZM, QSO is a retired New Zealand Army officer, a diplomat and senior public servant. He is the chief executive of the Ministry for Primary Industries. From 2011 until 2013 he was New Zealand High Commissioner to Australia based in Canberra. He was Comptroller of Customs and Chief Executive of the New Zealand Customs Service (2004–2011).



Covid-19: Criminals profiteering from a crisis

By Ray Batt
Border Security Professional and Industry SME

Beneath the ongoing human tragedy of the coronavirus pandemic has been the exploitation of the fears and concerns of ordinary citizens by unscrupulous individuals and organised criminal groups (OCG's).

Criminals are opportunists and are taking advantage of the COVID pandemic to profit from this crisis. There has been a substantial increase in fake or counterfeit medical items available on the market, including disposable medical masks, hand sanitisers, antiviral and antimalarial medication, vaccines and COVID-19 test kits.

This alert comes from the Medicine and Healthcare products Regulatory Agency (MHRA) following the recent Operation Pangea XIII, an investigation conducted by Interpol, regulators, police and law enforcement agencies in 90 countries.

This year's operation took place in March when demand for protective equipment (e.g. masks) and treatments (e.g. antiviral medication) against coronavirus were in full swing. With 34,000 unlicensed and fake products, advertised as 'corona spray', 'coronavirus medicines' or, 'coronaviruses packages' seized. At this time no

coronavirus related products had reached the UK, but there were other discoveries. The MHRA and the UK Border Force found 870,000 doses of unlicensed and dangerous medicines. They took down 300 websites and removed 1,000 social media adverts online offering medicines illegally. The fake medicines included anti-depressants, erectile dysfunction tablets, painkillers and anabolic steroids.

Pangea noted that fake corona home testing kits were particularly worrying from a

public health perspective, and we have seen the false hope provided by such kits being sent to the US from the UK and intercepted at Chicago International Airport. Globally there is an insatiable demand for certain types of healthcare and sanitary products (masks, gloves, sanitizers and cleaning products, pharmaceutical products), which has opened up more opportunities and a growing market for OCG's existing counterfeiters and individual profiteers.

The resulting impact of government lockdowns has changed the buying behaviour of the general public, perhaps forever, and what was considered by Border and Custom's agencies as one of the existential national security threats, namely e-commerce, has now become the agent of much concern in this pandemic crisis and likely beyond.

This is not new. Agencies have observed a year on year increase, and back in 2018 the then US CBP Commissioner Kevin McAleenan told the U.S. Chamber of Commerce's 6th Annual Global Supply Chain Summit, in Washington, D.C. That the numbers were indeed staggering. The US Office of Trade records revealed that





e-commerce resulted in nearly a 50 per cent increase in express consignment billings in five years and a 300 per cent increase in international mail. In 2013, the US CBP processed 150 million international mail shipments. By 2017, that number was over 500 million shipments. Over 80 per cent of Americans now shop online, and the global e-commerce market is now over \$3 trillion in sales. That volume and market value now has undoubtedly increased with COVID-19.

E-commerce offers a range of challenges for stretched customs and border agencies. These e-shipments pose the same health, safety and economic security risks as maritime container shipments, but with a far higher volume. With fulfilment sometimes masking origination, criminals see weapons, narcotics and fake medicines shipped in small packages as far more difficult to be discovered; and by virtue

of the online marketplace, these OCG's can now ship directly to consumers and retailers. OCG's have increasingly found new concealment methods and routes to get weapons past border defences. Components are being smuggled in via the fast parcel system, hidden amongst the explosive growth in online shopping. Last year in the UK, 100 firearms were seized and 27 people arrested by the National Crime Agency (NCA) in the second national operation targeting customers who bought illegal blank-firing weapons online from sellers across Europe on the dark web. While these weapons can be purchased with limited restrictions in many countries, they are illegal in the UK. As they can be readily converted to fire live ammunition, they represent a significant criminal risk.

Equally, the terrorist threat cannot be understated. In 2010, intelligence sharing led to the

disruption of a terrorist plot that involved ink cartridges placed in small packages on express cargo planes and were set to detonate over the eastern seaboard of the United States. This resulted in the immediate development of Air Cargo Advance Screening (ACAS) by US CBP in 2010, and several Pre Load Air Cargo Information or PLACI programmes and pilots in Canada and Europe. But fully operationalised systems are few and far between.

Whilst our hard-pressed border agencies are trying to facilitate the processing of legitimate consignments of essential and urgently needed medical supplies, they need to be mindful of how OCG's and individuals are looking to exploit the increased volumes crossing the border and arriving at our airports. The challenge to Border and Custom agencies is immense to keep pace with the exponential growth in online shipments and the pandemic has

COVID -19 CRIME

magnified this. Simply put they cannot inspect every item, and therefore in-line with other cargo there needs to be intelligence led-risk assessment, combining real-time targeting with pre-load PLACI and pre-arrival checks with advance cargo information, screening and use of AI tools such as predictive modelling. Underpinning this needs to be a strategy that comprises both operational procedures and new tools as well as increased national and international cooperation and standard-setting.

Operationally it requires adapting from scanning for risks around more high-value, sea containerised shipments, to increasing lower-value and smaller shipments as per courier, fast parcel and consolidated in standard air freight. Whereas maritime and air freight requires importers to submit data in advance of the physical arrival of a shipment for declaration

and risk assessment, there is less qualitative data to identify and assess the low-value parcels and packets to feed into the mainstream targeting screening systems. The US has a defined e-commerce strategy with new protocols that allow for effective identification, enforcement, and deterrence that is being pursued to better address the emerging threats, improve the targeting and optimise the available resource and inter-agency partnering. That incentivises the stakeholders in the e-commerce supply chain and strengthens compliance through enforcement mechanisms and known shipper programmes. Along with robust international standards for e-commerce shipment data collection and identification.

The nature of e-commerce as opposed to standard cargo brings into focus a greater need to identify the ultimate consignee and consignor. This will require

a consolidated approach to targeting both people and goods in order to deliver a multi-modal cross domain risk assessment platform. This should leverage state of the art technology with more effective integrated tools for dark-web intelligence analysis and dissemination.

The legacy of the Coronavirus pandemic may well be felt beyond the impact on society and its view on public health and preparedness. The change in individual buying behaviour to online from traditional shopping may result in a far bigger challenge to come for agencies battling OCG's.



Preserving the global supply chain in times of crisis

By Shenali Jashani,
Business Consultant,
Future Borders, Fujitsu

Kieran Kelly,
Digital Transformation & Technology Specialist,
NSF International

Covid-19 - the global pandemic that disrupted the world in such a short space of time. Whilst a highly distorted supply and demand impacts the global supply chains, innovative solutions which address the new and emerging societal and industry needs in the wake of the Covid-19 pandemic are rapidly needed.'

Covid-19 has drastically changed the way the world now interacts with each other. In March of this year, public hotspots and social spaces were closed within just weeks of the virus entering the UK, with 'non-essential' businesses following suit or having to quickly adapt to their workforce working remotely. Despite living in a world where we analyse and share information instantaneously, we heavily underestimated the impact of the aggressive nature and spread of the pandemic on our national supply chains and human resources. We cannot measure what we cannot see, and across today's complex supply web, more is required to connect a fractured and disparate system.

From a border management perspective, the movement of people has been heavily restricted both internationally and domestically, with the UK public being placed on a mandatory lockdown to prevent the virus spreading. The continued

movement of goods across the border, however, is now more important than ever, along with our ability to track, authenticate and visualise availability to support the demand for fresh food and critical supplies for UK citizens. The global supply chains have been massively affected not just by this steep increase in demand but also by a declining workforce who are healthy enough to produce, package and deliver these goods end-to-end, as the virus continues to spread globally.

This distortion of supply and demand is painfully apparent within the food industry. Here the high levels of demand echo throughout the global supply chains, causing a severe effect on health and safety standards of the workforce, livestock and fresh produce.

In an industry that was already marked with high levels of fraudulent behaviour, COVID-19 has brought into sharp focus the need to effectively audit and hold accountable those who are involved the production of food, from farmers, to packaging plants to logistics providers all the way through to your local supermarket. If fresh food is experiencing a 150% surge in demand, then how can supply chains which were already working at 99% efficiencies be suddenly producing 120% more food? The numbers simply do not add up. Providing visibility here is not only crucial for maintaining high health and safety standards but also for understanding the complexities of the supply chain; specifically being able to identify where goods originate from and establish their current location at any point in time.



GLOBAL SUPPLY CHAIN

Optimising supply chains is an inherently tricky business, due to the convoluted and global nature of trade. For example, a single piece of pork would have begun life as a pig on a farm in Northern Ireland, been transported as livestock to GB, butchered in Scotland, packaged in Manchester and then delivered all across the world to mainland EU or even to China in its derivative form.

For every step of this process, including on the farm, a different individual and organisation have played a role and interacted with the goods, thus increasing the difficulty of tracing the goods and any necessary precautions. Not to mention the proliferation of varying standards across countries which in turn produce diverging streams of regulation. With all these various actors adhering to differing standards spread across the world, it becomes far easier to mix human error with illicit activity, and for regulatory bodies and final buyers to turn a 'blind eye' if profit margins continue to be met.

Animal identification, while regulated by regional Governments, is based on management and upkeep of paper-based records.

Departments have previously sought to computerise the registration of animals and assets but the data itself remains buried in silos and paper management is still required at farm level. Data standards remain fractured and no single version of the truth is visible or manageable, thus presenting major challenges for the traceability, authentication and management of livestock.

Some would suggest that traceability already exists today. To an extent, they would be right. At the same time, we must all recognise that there is scope for

fraud in all aspects of the food and livestock supply chains. Without an effective end to end monitoring process, the consequential risk to human health and the wider economy remains high.

The pandemic has placed even more strain on an already fractured and stressed supply chain. The resultant impact to the economy and public at large has been highlighted by the global levels of panic buying and public disorder.

In the scramble to procure products quickly, government departments and distribution centres are resorting to spot markets which poses a significant risk in itself. Although purchased in good faith these goods may themselves present a threat to human health, and may compound the problem still further.

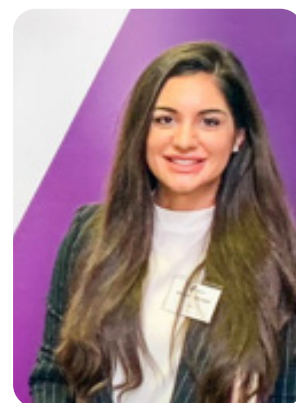
Through the correct implementation of technology, people and processes, positive economic behaviours need to be supported from the beginning of the supply chain. By implementing multifactor authentication of livestock at birth we have the ability to authenticate, trace and validate registered animals and produce both up and down stream. We can utilise smartphone technologies, animal DNA and government approved, digitally signed animal

identification tags to establish and support a connected digital agriculture eco-system. This not only supports local produce and sustainability, but establishes a single record of trust that can be shared in real-time across the connected supply chains, including all relevant government departments, regulatory and certification bodies. Audit and compliance can be achieved in real-time whilst removing the need for paper records and on farm administration. In our knowledge economy, we can support and enhance trust from birth of the animals through to the end consumer by creating positive economic behaviours.

The end-to-end solution benefits all members of the new connected eco-system. Efficiency savings, predictive analytics and real-time collaboration across government and industry will improve standards, increase traceability and ultimately promote greater visibility throughout the supply chain.

If we work together in a truly collaborative manner, we have the ability to create a positive paradigm shift for the global food supply chains and ensure we provide efficient access to safe food for all current and future generations, even in times of crisis.





The border management paradox

By Shannon Kerrigan

How do we strike the ‘right’ balance between security and commerce? As Governments across the world wrestle with this question - international mobility, migration, and trade volumes have accelerated at pace, placing border systems under increasing pressure to: facilitate flow; process progressively complex transactions, and; detect evolving criminal threats. COVID-19 has sharply interrupted this trend, with international passenger capacity reducing by 85% in April 2020¹, and global trade expected to fall between 13-32% as the world works to bring the pandemic under control.

As we look ahead, trade and

travel facilitation will be key to economic recovery. Leidos foresees a shift towards contactless facilitation methods such as Non-Intrusive Inspection and biometric identification to create the frictionless border of the future - enabling government agencies and port authorities to meet border users’ ‘keep me safe without slowing me down’ expectations, whilst strengthening: economic growth, revenue collection, and national security. An effective framework that empowers a Whole-of-Government response, leveraging technology to maximise data driven intelligence is integral to this.

The UK Future Border

The UK Government’s Future Border goal is clear: **to create and maintain a world class border that enhances the prosperity and security of the UK.**

This ambitious statement stands against the backdrop of global COVID-19 uncertainty, and the impending pressure of EU Exit – both of which have shone a spotlight on HMG’s strategy to protect the health, safety, and security of the UK and its citizens. Whilst consensus is currently limited on the majority of topics, there is collective agreement on the criticality of how we organise, operate, and rise to the challenge of coordinated border management.

The Current Situation

Current customs and immigration systems operate in departmental siloes of layered legacy software, built up over many years to support changing regulations. With 27 Government departments working to balance priorities and manage the mass of people and goods that cross our air, land and sea crossing points every day, implementation of post EU Exit operations remains a complex challenge, in an increasingly short space of time. HMRC is forecasting a surge from



¹ ICAO. (2020, April). Effects of Novel Coronavirus (COVID-19) on Civil Aviation: Economic Impact Analysis. Retrieved from <https://www.icao.int/sustainability/Documents/COVID-19/ICAO%20Coronavirus%202020%2004%2008%20Econ%20Impact.pdf>

BORDER MANAGEMENT

the current 55 million customs declarations annually processed, to 270 million - if the UK leaves the EU with 'no deal'². This will place immense pressure on IT and physical infrastructure, alongside Border Force agents.

A Unique Opportunity

Alongside these challenges however, this landscape presents huge opportunity for change on a bold, but achievable scale. The UK cross-government Border Delivery Group and Future Borders Programme have driven significant progress in scoping and coordinating plans to ensure the border works effectively after the transition period, alongside developing international, trade, and supplier partnerships. Building on this to deliver the UK's Future Border vision relies heavily on effective collaboration (cross-government, industry, and internationally), learning what has worked, and what hasn't worked from other nations to create a world leading UK border, and adapting commercial and policy processes to enable: innovation, agility, and outcome based contracts that are constructed to deliver true transformation.

Leidos has a range of ideas on the most valuable way to contribute within this area. As a long-term partner to the UK and US governments, we provide fixed and mobile scanning equipment,

multi-sensor surveillance systems, and integration services that include multi-modal biometrics in the United Kingdom and United States.

To move from siloed 'border controls' to a world leading Coordinated Border Management system, we must focus on underpinning operational activity and programmes with cross-cutting enablers. This will empower the delivery of an end-to-end border experience, with minimal friction and cost for users, based on international standards and operational best practice, supported by innovative technology with emphasis on: collaboration, trust, unification and driving value through interoperability.

Non-Intrusive Inspection as an Enabler of the UK Future Border Vision

We recommend focusing on the user, and integrating government around their journey, for example: moving towards digital customs and removing the need for a 'wet stamp', introducing greater use of NII, and a tiered Trusted Trader programme. This provides traders the option to pre-enrol, register their cargo and purpose, and experience minimal friction at the border - in exchange for maximum compliance, revenue collection, security, and flow facilitation for UK Government

and Port Authorities.

The UK currently has capacity to intercept a minimal percentage of imports - documentary checks of non-EU goods are carried out on less than 3% of imports (compared to less than 1% of lorries arriving via Dover or the Channel Tunnel), and physical inspections on a fewer number still³. When customs do conduct documentary checks, the delay at the border can be up to three hours, with physical inspection delays sometimes reaching up to five hours⁴. This highlights a gap in the process and intelligence cycle, and is where NII comes in.

Using Dover as an example, just under 18,000 vessel arrivals were handled at this port alone in 2018⁵. On the commerce side of the equation - providing the capacity to perform 100 percent scanning on traffic flowing into the country means no queues or requirements for additional 'away from the border' inspection infrastructure. Government agents are focused on identified threats opposed to unnecessary interventions, travellers' gain hours of their day back, traders conduct faster, more efficient business, and the administrative burden for both government and industry is reduced. These advances have the power to transform the UK border into a tool to boost the economy significantly, rather than a commerce blocker.

² National Audit Office (April, 2020). Departmental Overview: HM Revenue & Customs 2019. Retrieved from <https://www.nao.org.uk/wp-content/uploads/2020/04/Departmental-Overview-HM-Revenue-and-Customs-2019.pdf>

³ Institute for Government, (2017, September). Implementing Brexit: Customs. Retrieved from https://www.instituteforgovernment.org.uk/sites/default/files/publications/IfG_Brexit_customs_WEB_0.pdf

⁴ House of Commons, (2017, January). Home Affairs Committee. Oral evidence: Implications of the UK's exit from the EU. Retrieved from <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/home-affairs-committee/implications-of-the-uks-exit-from-the-european-union/oral/46107.pdf>

⁵ Department for Transport, (2019, August). UK Port Freight Statistics: 2018. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/826446/port-freight-statistics-2018.pdf

Then there is the security counter balance - scanning is easy, but detecting is hard, and the difference is critical. Leidos' solutions create a detailed radiographic image supported by easy-to-use analysis software tools and dual-energy material discrimination, helping inspectors quickly detect and intercept weapons, narcotics, explosives, and other contraband. Scanning the entire volume of goods that enter the UK would produce a mass of data, the value comes from how we analyse and turn this into intelligence. For example, correlating each bill of lading with the real-time shipment image, and deploying Machine Learning and

Artificial Intelligence subsystems to automate contraband detection, reducing the manual oversight workload on Border Force agents.

We would no longer need to question what is in containers – the agents and departments involved are already aware. Data analytics can then be performed on: crossing timings, frequent travellers, unexpected route patterns, linked suspicious persons and many more data elements - eliminating the 'random' nature of border checks, and building a complete and trusted intelligence landscape.

In conclusion, current circumstances offer an

unprecedented opportunity for a holistic, pan-government approach that takes full advantage of innovative technologies to deliver on both the commerce and security aspect of the border management paradox.

About Leidos

Leidos is a Fortune 500® information technology, engineering, and science solutions and services leader working to solve the world's toughest challenges in the defence, intelligence, homeland security, civil, and health markets. Our company's 36,000 employees support vital missions for government and commercial customers. With global headquarters in Reston, Va., and European headquarters in the United Kingdom, Leidos reported annual revenues of approximately \$11.09 billion for the fiscal year ended January 3, 2020.



For more information, please visit www.leidos.com | www.leidos.com/uk-borders

REPORT



World Travel & Tourism Council: Crisis Readiness Report Summary

by Gloria Guevera Manzo

The world is facing increasingly complex and interconnected events and challenges. While globalisation has enabled an unprecedented reduction in poverty and connectivity; global transformations have simultaneously given rise to a new set of tests. Given the high stakes, new solutions will be required at the local, national and international levels, bringing together all relevant stakeholders to jointly respond to today's risks and to prepare for the crises of tomorrow.

The Crisis Readiness report from the World Travel & Tourism Council (WTTC) launched in November 2019, analyses the impact at the national and destination level of 90 crises between 2001 and 2018; measuring the impact in terms of the time to recovery, the lost arrivals as well as the lost visitor spending.

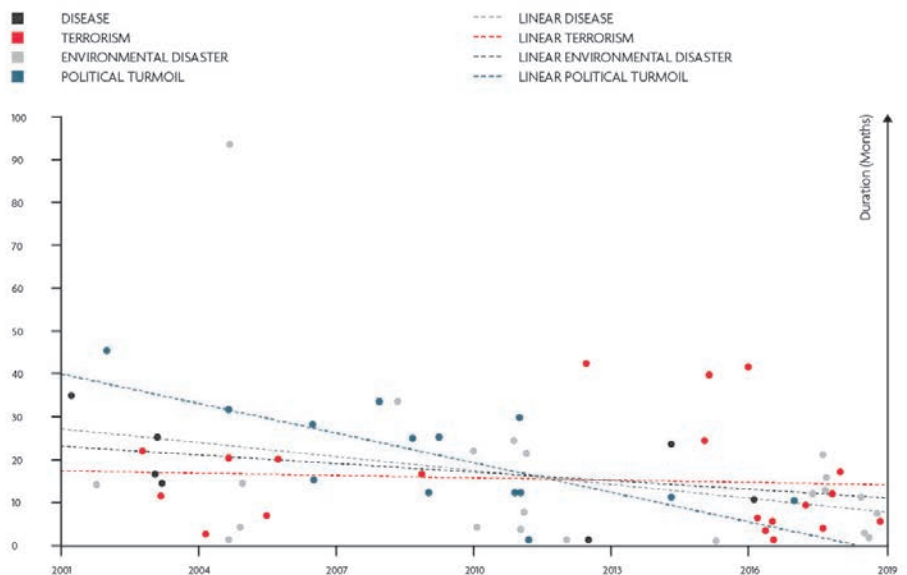
Measurable economic impact occurred in 92% of the selected Travel & Tourism related case studies. Among the cases with evident impact, terrorism cases had the lowest recovery time at 11.5 months on average, with the recovery time ranging from as little as 2 months to a maximum 42 months. The data shows

that political instability or civil unrest is far more damaging to a country's Travel & Tourism sector than one-off terror attacks, with civil unrest and political instability cases having the highest recovery time at 22.2

93 months. This is due to the wide variation in the severity of natural disaster events within our case examples.

Different crisis events, unsurprisingly, have differing levels of economic impact. Of

Figure 11: Crisis Recovery Duration by Start Year of Crisis (Tourism Economics)



months on average, with a range between 10 and 44.9 months.

Disease cases had average recovery times of 19.4 months, with a range between 10 and 34.9 months. Recovery from natural disasters took 16.2 months on average. Natural disasters had the greatest range of recovery time, from just one month to

the four crisis categories studied, terrorism incidents had the lowest economic impact in terms of total lost arrivals and lost visitor spending, and the quickest recovery time, while civil unrest had the longest recovery period. Though crises are occurring with greater frequency, they also appear to be diminishingly

disruptive. WTTC's research reveals that the Travel & Tourism sector has become increasingly resilient over time, with the average recovery duration falling significantly, from 26 months in 2001 to just 10 months in 2018.

Often, the biggest risk is not the crisis itself, but rather the preparation, management and response. While the implementation of strategic recommendations and policies will improve the Travel & Tourism sector's resilience, it is important for destinations to take a holistic approach to drive societal resilience more broadly; the building blocks of which are trust, collaboration, communication, openness, empathy, honesty and efficiency.

While predicting when the next crisis will hit and what form it will take is nearly impossible, preparing through an all-hazards approach to managing crises can foster resilience and ultimately protect a valuable sector of the economy from disruption. It is important for governments and the private sector to collaborate and plan for the safety and security of travellers, the local communities and the destinations themselves.

Having a robust crisis preparedness plan is critical in mitigating the effects of a crisis. Establishing and maintaining key relationships based on trust, shared values and common goals takes time and should be attended to long before it is necessary to rely on them. It is thus necessary to bring together and create these trust-based coalitions between key stakeholders ahead of crisis

Index 100 = Q pre-crisis

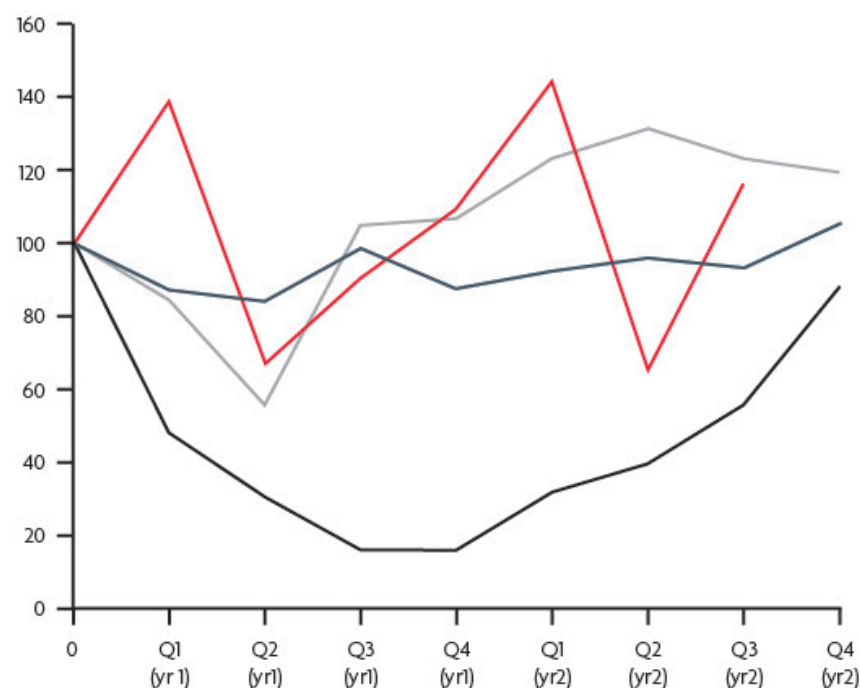


Figure 7: Epidemic Impact on International Arrivals

- BRAZIL - ZIKA VIRUS 2015
- UNITED KINGDOM - FOOT AND MOUTH DISEASE 2001
- HONG KONG - SARS 2003
- SIERRA LEONE - EBOLA 2014

to respond in a coordinated and effective way when needed and ultimately improve resilience. What's more, given the importance of Travel & Tourism, the sector should play a role in these coalitions.

Strong coalitions require commitment, energy and time. Such an approach requires key private sector stakeholders to be engaged in security discussions with government counterparts, so that critical intelligence can be shared. This relationship may require private sector partners

to receive security clearances or non-disclosure agreements so that government agencies can more freely share threat information that can enable early action.

Crisis preparedness needs to be human-centric, focusing on how to safeguard residents, tourists and employees alike. As such, identifying and engaging with these stakeholder groups is critical to be able to disseminate information, provide reassurances and share best-practice approaches.

As destinations invest in core

REPORT

capacity and resources, they should ensure that adequate emergency response personnel are in place, that there is a contingency plan for funding, and that they have regular drills and rehearse different scenarios to make certain there is “muscle memory”. People on the front line must be educated, trained and empowered; with roles and responsibilities of each staff member clearly outlined in the event of a crisis. Mexico City, for instance, conducts each year on September 19, an annual mandatory emergency disaster simulation, on the anniversary of an 8.0 magnitude earthquake which took place in 1985. Thanks to the drills, and resulting muscle memory, Mexicans knew what to do when the earthquake hit Mexico City on 19 September 2017.

When managing a crisis, it is important to first have accurate and transparent communication. Strategic communication and effective media engagement during the immediate aftermath of a crisis are critical to the Travel & Tourism sector’s timely recovery. Successful responses require proactive, honest, transparent and factually accurate communication to the extent of the crisis, with detailed information on ongoing health and safety issues. Having a proportionate response is key. Furthermore, misperceptions, particularly relating to geography, still occur often – ensuring that people have completely accurate knowledge on where things are happening can help mitigate any collateral damage coming from ignorance or stigmatisation. For instance, one public misconception was

that the entire Caribbean region was struck by hurricanes in 2017, with 91% of travellers believing the Caribbean was closed, leading to a decrease in regional arrivals.

As destinations recover and rebuild their confidence after a crisis has been managed, they need to recompute for lost ground. This requires transparency and ownership of the crisis; with a clear and honest articulation of what happened, what has been done in the wake of the crisis and the promise of what a destination will do in the future. Managing the perception of security is key. Effective communication and marketing can also let travellers know when a destination is ready

to welcome tourists & motivate travellers to come back. In today’s hyper-visual era, pictures and videos to show that a destination or business is open and eager to welcome tourists can play an important role in illustrating the recovery. Miami for instance created a website with a live feed, which is employed in the context of crisis, so that travellers can see for themselves what is happening on their beaches and boardwalks.

Beyond communications, governments can put in place a variety of policies, ranging from travel facilitation to travel insurance, to persuade travellers to come back to the affected destinations after a crisis event.

Miami Actual vs Lost Monthly Arrivals

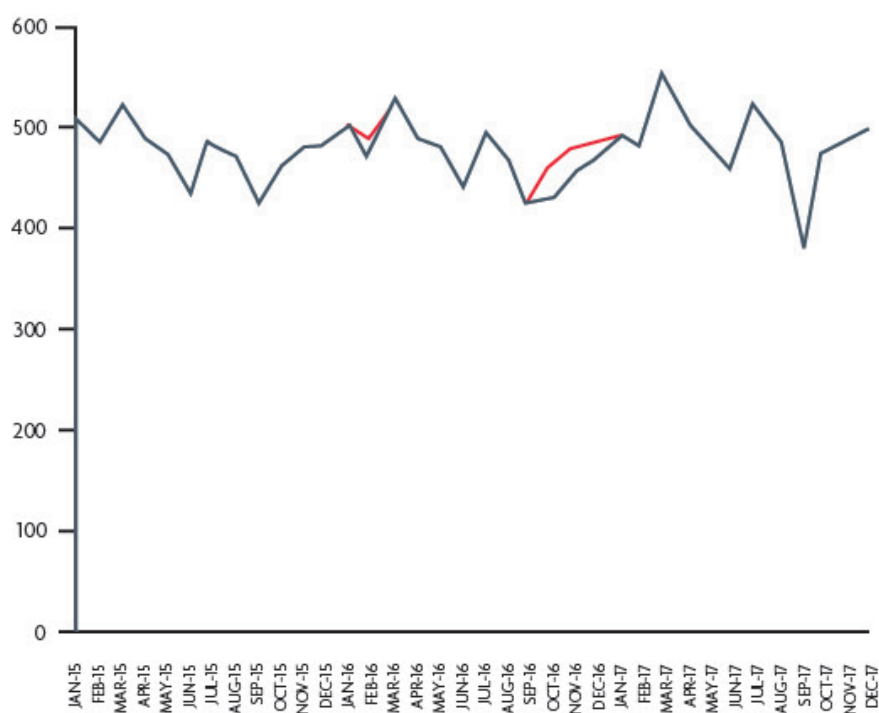


Figure 8: Zika Impact on Miami International Arrivals (in thousands)

■ ARRIVALS LOST
■ MONTHLY ARRIVALS

Puerto Rico Actual vs Lost Monthly Arrivals

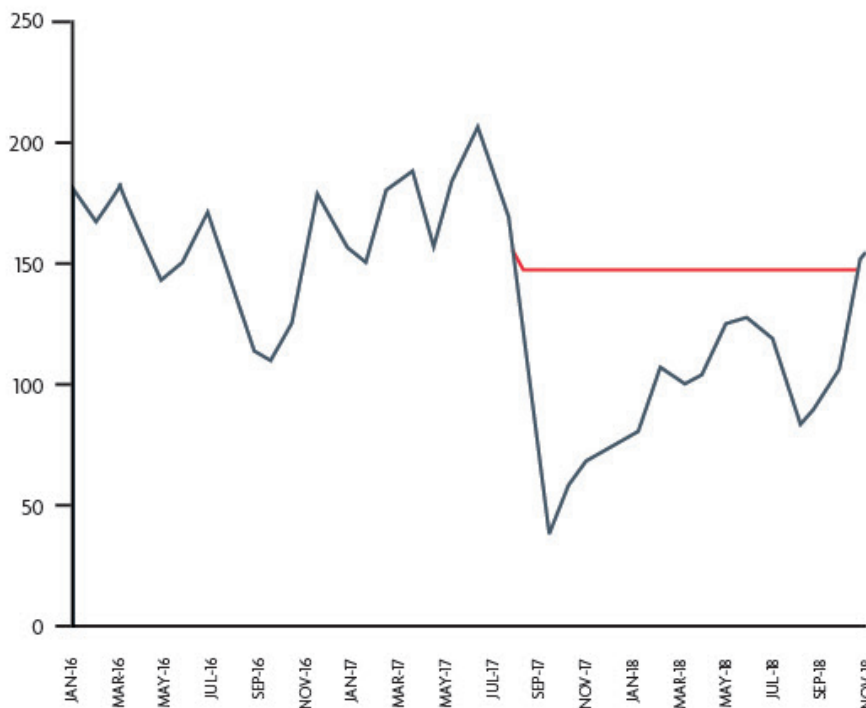


Figure 9: Puerto Rico Actual & Lost Monthly Arrivals (in thousands)

■ LOST ARRIVALS
■ ACTUAL ARRIVALS

both citizens as well as tourists. One example is that of Puerto Rico, which decided to adopt a new energy infrastructure after Hurricane Maria tore up the island's power transmission and distribution network in 2017, which left the average citizen without electricity for an average of 84 days. Specifically, Puerto Rico is planning to build low carbon microgrids which incorporate renewable energy, in turn enabling increased energy resilience and mitigating utility failure.

This body of work is however just the first milestone, helping us to set the stage to engage key stakeholders more deeply as we collaborate to develop self-assessment preparedness tools as well as "basics" plans for emergency action for both the public and private sectors.

Together, we hope to build a more resilient future not just for destinations and businesses, but for the local communities who want to see their homes and livelihoods protected and the travellers who continue to dream of discovering the wonders of the world.

Gloria Guevara is the President & CEO of World Travel & Tourism Council (WTTC), which represents the global Travel & Tourism private sector.

While certain market segments are very sensitive to crisis, others are not as risk averse; with different types of travellers having diverse risk thresholds. Understanding the nuances of travellers and their motivations is critical in the recovery phase. Destinations should work to identify which market segments are likely to come back first after an incident and focus on these source markets first. The diversification of tourism

segments can help mitigate the impact.

The destruction caused by crises, may provide an opportunity to rebuild more robust, sustainable and efficient infrastructure. The recovery phase may also enable a destination to rethink its product offering and its target audience. In effect, disasters may disrupt previous political and financial roadblocks, ultimately becoming a catalyst to change the tourism product, benefiting

Reviving the global economy through special economic zones

by Shanker Singham, Lars Karlsson and Daniel A. Gottschald



Shanker Singham is CEO, Competere and a former advisor to the United States Trade Representative and Department of Commerce, and to the UK Trade Secretary.



Lars Karlsson is Managing Director of KGH, and former Director of the World Customs Organisation and former head of the Swedish Customs Agency.



Daniel Gottschald is the CEO of Technical University Munich's international venture arm TUM International GmbH.

The Coronavirus SARS-CoV2, and the disease it causes Covid-19, has achieved something that nothing and no-one else has managed in the history of the world. It has achieved a complete shutdown of the global economy. This economic coma we have subjected ourselves to in order to fight the disease will mean that once we all come out of our lockdowns, we will be confronted with a deeper economic hole than perhaps ever in our lifetimes, and longer. At the moment, economic projections are for a deeper economic depression than even the great depression of the 1930s.

How will we recover?

We suggest operating at four distinct levels, each contributing to the greater vision of establishing a much more resilient global economy for the post Covid-19 era. First what we can do globally to ensure that global institutions are singing from the same page and are not giving inconsistent advice to countries. Second how we shore up international trade, and ensure that we maintain open trading regimes without barriers and regulatory protectionism. Third we must ensure that national level economic reform is based on

private sector economic growth, as governments will have spent unprecedented and unsustainable amounts. This should be focused on ensuring new business formation and scaling of those businesses. This will require pro-competitive regulatory reforms that create wealth and grows economies, creating the conditions for entrepreneurs to flourish. Governments will have to single-mindedly focus on what generates private sector wealth creation – anything else will be a “nice to have” luxury. Fourthly, we can use subnational zones to generate economic activity through the use

of special economic zones, free trade zones and enhanced nodes for the global supply chain.

This article will focus on the final area, although a successful SEZ/node strategy will have positive effects across the other four dimensions, as the schematic below shows.

Special Economic Zones, and Free Trade Zones can be much more powerful economic generators than they have been before. In the past, they consisted of tariff and customs concessions, and tax breaks. But these alone are not enough to attract global capital and parts of the global supply chain. In order to attract these, it is necessary to use the SEZs to improve the regulatory environment, removing the burdens on business formation and growth. There is a lot of private capital that is sitting on the side-lines and once we come out of the Covid-19 outbreak, it will be looking for places to invest. There will also be great pressure to “reshore” supply chains, and to have greater visibility into supply chains. SEZs can fulfil this need as well. As the world recovers, these enhanced nodes or poles will develop around the world and will support trade superhighways between them which could turbocharge much depleted international trade flows.

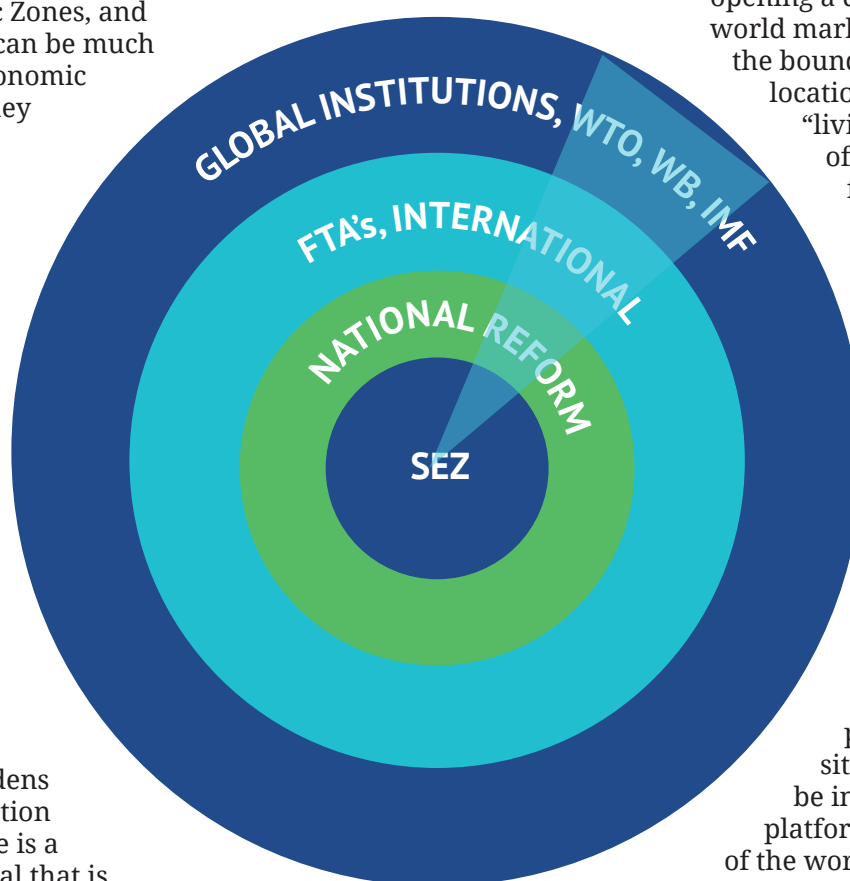
We will also need to diversify

supply chains through increasing the number of FTAs we have around the world, and lowering the barriers to trade with as many countries as possible. SEZs play an important role here as well. Regulatory improvements in the zones themselves can lead to reform in

interconnected SEZs will differentiate nations in the post Covid-19 era. These SEZs should be more than just the sum of transactions under an FTA and they can and should be more than just a free zone beyond customs control. In the past, SEZs have been national projects of opening a domestic economy to world markets – carefully, within the boundaries of a controlled location and under the

“living lab” conditions of a specific regulatory framework, which was expected to show the future path for the economic evolution of a country. China’s opening via the SEZ of Shenzhen, established in 1980, has become the role model for many of these zones. The new SEZs after Corona won’t be regulatory enclaves, allocated to a particular geographic site, but they will be institutionalized platforms and networks

of the world’s most open, most competitive and most relevant resource, knowledge and business agglomerations, self-governed under their own regulatory regime, guarded by the most proactive nations and interconnected by worldwide trade highways and super zones of prosperity. The dominating powers of these future SEZs won’t be the most aggressive empire builders, but the most competitive, fastest and smartest service providers, who maintain trade highways by unbeatable offers in finance, entrepreneurship, innovation



the country as a whole, spurring much needed national level reform. This can in turn make, in particular developing countries part of the global supply chains and hence interconnect the developed and developing world. Vesting developing countries into the success of the global trading system will make them better stewards of it, as they start to see the benefits of reduction of barriers in developed and developing countries alike.

The governance of

REVIVING THE GLOBAL ECONOMY

support and raising the ease of doing business for those who suffer most from the post Covid-19 crisis. Service quality levels, the degree of ensured freedom and the credibility in being a safe harbour for new, global ventures will be crucial success factors. The trailblazers of a global economic recovery will need an initial nucleus to materialize their businesses – it will be provided by an upgraded SEZ, selling participation and market access instead of investment opportunities only. Hence, SEZs as the future pacemakers of globalization have to be

- » embedded into a global system of interconnected value chains (by smart technology and favourable free trade agreements),
- » equipped as most functional nodes of global trade highways (by smart logistics infrastructure and smart market intelligence functions) and
- » governed under a unique special regulatory regime that enhances wealth creation.

Some readers of this article might be inclined to question if the free zone instrument can evolve into this new shape that we are describing in this context. Over the last decade there have been many studies written on the challenges related to traditional free zones from a governance, transparency and compliance

perspective, since the zones are outside the customs territory and supervision of customs services and other agencies involved in international cross border trade. Some zones have been identified as risks related to illegal activities, security and intellectual property rights issues.

The lack of segmentation of zones related to compliance and risk has been identified as a major problem by international institutions. This is now about to change and the process has already started with the development of risk and compliance programmes for free zones, like the Safe Zone programme from the World Free Zones Organization, Authorized Economic Operator (SAFE) concept of the World Customs Organization and the Clean Zone initiative from OECD, all including a clear Code of Conduct for good governance, transparency, high quality and compliance. This article discusses a new generation of high level Special Economic Zones using these new standards as a basis for safe and secure operations managed in a transparent way.

Prior to the pandemic a world was emerging where the competition to be a global node in the supply chain was fierce. Countries that were unable to make themselves attractive to the supply chain would simply become irrelevant in international trade terms. We know that pandemics through history have

tended to accelerate existing trends, and that will also be true of global nodes for international trade supply lines.

The economic impact of Covid-19 will be devastating. Traditional countermeasures will not help to absorb the shock sufficiently, as the upcoming recession is not a monetary or a sectoral crisis, but a crisis of the resilience of globalization itself. Economic powers will shift, strong industrial clusters will collapse, but globalization, for all that, will continue, the informal sector may recover faster in many countries and new socio-economic eco-systems are on the rise. It is now time to install the platforms which help them to emerge. Never before have we had the opportunity to use so many powerful tools: technologies of industry 4.0 and artificial intelligence, a wealth of experience with failing and succeeding special economic zones all over the world and the will and opportunity to enter into a new set of intelligent and comprehensive free trade agreements. Combining these tools in the right way will allow us to design a more robust and fair globalization of the future, which guarantees access to global trade highways for tomorrow's business sectors, on the basis of competition and openness.

Future borders - maximising the impact of free ports

By Richard Gutsell,
Business Development Director, Borders Identity & The Digital Economy, Atkins

FUTURE BORDERS



The way we define and manage our borders is becoming increasingly important. The Government is planning to establish up to 10 free ports across the UK to boost trade and economic growth as we leave the European Union. Under the arrangements, some of our existing rail, air or maritime gateways will be designated free trading zones, that is, areas where special customs and tax

arrangements apply.

Here, we outline some of the steps that government could take to maximise the benefits of the new free port designation. In particular, we consider how physical and digital border controls could be optimised to allow goods to move seamlessly through free ports, their associated enterprise zones for industry and on the rest of the country.

Design and model free port borders in a virtual environment first

To do this, we need to change the way we think about the UK's borders.

Instead of seeing them as an immovable barrier we should see the borders of the future as a complex, interwoven fabric of digital and physical processes. Designing the way people and



goods move through the space in a virtual environment first will help authorities:

- Assess the best way to manage the opportunities and challenges presented by free ports, including security vulnerabilities, revenue erosion, operational efficiencies, and straight-through processing.
- Examine, in detail, the potential for different formations of free port, across maritime, air and rail, and how to maximise the benefits of them.
- Plan for significant changes, such as a new trade deal or an ambitious infrastructure project, which would require the free port to be capable of adapting.
- Solve problems and build robust business cases before budgets are allocated and new facilities are planned.

A digital twin, that is, a virtual replica of real world infrastructure, can be created to show the critical processes that underpin operations at the border, and those that stretch beyond it. By capturing this data, we're enabling intelligent decision making on, for example, risk and operational efficiency. We can also plan 20–30 years into the future. If we connect all 10 free port digital twins, we can start measure each ports' performance, strengthen their connections and improve interoperability.

Maximise the benefits of emerging technologies

According to McKinsey & Company, around “40 partly or fully automated ports now do business in various parts of

the world” and that number is expected to increase as billions of pounds more is invested in automation over the next few years¹.

Applying technology to streamline and automate operations will have significant implications for security controls, workers, operators, supply chains and local communities, and the pros and cons of this should be addressed through the free port's design.

Automation is just one of the technologies that should be integrated into our thinking about free ports. Other examples include the Internet of Things (IoT), autonomous vehicles (including cargo vehicles), and the move to 5G networks.

All free ports should have digital technologies, including those listed above, embedded in their long-term strategy to ensure they're prepared for the opportunities and growth that could be created by custom-free trade and manufacturing.

Understand the importance of identity in creating a secure, non-stop trading hub

If authorities know who we are and where we've been, they can make it easier for us to move between countries. The same applies to cargo. If authorities can identify and verify a product that's due to enter the country early on, they don't need to carry out as many checks on arrival.

At the borders of the future, people and goods will have established and verified identities, which will be tracked throughout their journey using, for example, IoT, 5G and/or blockchain

technology. This digital journey, which should start long before any physical activity, will enable authorities to put the processes and resources in place to ensure a person or product meets the UK's requirements before they get to the free port.

They'll know what level of trust to place in people and goods, or when and where to intervene, because they've identified the person or product and validated the route. In this way, they can ensure free ports are secure and efficient. When this seamless digital journey underpins the physical processes, it can also enable straight-through processing, which will spread the benefits of free port status beyond the zone itself to the rest of the UK.

Develop resilience against operational and cyber threats

Rail, air and maritime ports are complex systems of systems that are sensitive to disruption. For example, bad weather including snow and ice can bring activity on a runway or dock to a halt. There are also less visible threats, which are increasing as a result of operating in an ever more connected world.

This sensitivity will increase as our reliance on digital infrastructure grows and the free port operates at optimum capacity for more of the time. The free port of the future must have robust controls and plans in place to detect and mitigate the risk of a physical event or cyber attack, slowing or stopping the steady flow of people and goods through our borders. This resilience must be designed in from the outset.

¹ <https://www.mckinsey.com/industries/travel-transport-and-logistics/our-insights/the-future-of-automated-ports>



Disaggregated borders - a catalyst for economic development

If we can track cargo, in the way we've described above, it's possible to control it, and that means we can extend the benefits of the real free port to the businesses and communities within a virtual enterprise zone, while also being assured there are no security threats or customs

and revenue violations. Target industries and development zones could be designated virtual enterprise zones as part of plans for a single free port or for all 10 free ports.

To realise the potential of free ports, many different processes, services, technologies and disciplines will need to be integrated, they'll need to be delivered at pace, and their impact will be felt for many

years to come. If we consider the physical and digital infrastructure requirements early on it will increase the chances of success and ensure the way we manage our borders contributes to the growth of UK trade.

**FEATURE:
THE DIGITAL
CHALLENGE**



Feature: the digital challenge at the borders

by Krum Garkov

Today, and in the years to come, as a result of migratory pressure and terrorist threats, Europe will be facing a dual challenge:

- On one hand, to **remain open to the rest of the world**, since the world has never been smaller than it is today. Countries, businesses, organizations and people are more interconnected and interdependent than ever before;
- On the other, to **stay secure**, since security and safety are one of the major concerns of the European citizens.

Border management is a crucial element of the response to this challenge. However, border management today is a challenge on its own as well. In an increasingly globalized world, economic prosperity relies on the free movement of goods and people, but if those flows are not monitored and controlled the result can be smuggling, trafficking and irregular migration. Moreover, with them come organized crime and terrorism. How can governments reconcile these contradictions and make border management more efficient and agile?

To answer this question, we need to recognize that border management must go through a

fundamental transformation:

- First, it is **information driven - and information is the most valuable asset** of border agencies;
- Second, its efficiency is totally **dependent on digital technologies**, border infrastructure and large-scale IT systems; and
- Third, there is a fast process of **convergence** between border management, migration management and internal security.

Therefore, there is a need for a **paradigm shift** in border management from being built on **physical assets** to being built on **digital assets** and from **silos-based approach to integration and information exchange**.

Digital technologies will be a key enabler and success factor of this change. However, deployment and use of their capabilities will only be useful if we recognise that the information, operational and technical **silos** created in the past **are no longer fit for purpose**. There is a **need of a new integrated information architecture** and a **new ecosystem** for border management. It should consolidate capabilities of digital technologies and available information - and provide an extended and powerful tool set in the hands of practitioners,

increasing the efficiency of their daily work.

This need has been clearly recognized by the EU. In the last few years, the Union has been facing an evolving threat to internal security, as clearly demonstrated by terrorist attacks and the growing migratory pressure. A crucial element of the response to this has been in its efforts to address existing information gaps; and to strengthen and develop further information exchange and management.

With these objectives in mind, the EU has in recent years launched a number of new initiatives, in particular:

- implementation of the European Entry-Exit System (EES);
- implementation of the European Travel Information and Authorization System (ETIAS); and
- implementation of interoperability architecture for border management and internal security.

These initiatives constitute a substantial part of the EU response to current security and migration challenges, acknowledging the fact that border management is undergoing a fundamental digital

transformation. Taken together, they aim to make information exchange and information management in the European Union more efficient and comprehensive and to deploy a **new information architecture for border management and internal security in EU** (see figure below right).

The European Agency for Operational Management of Large-Scale IT Systems in the area of Freedom, Security and Justice (eu-LISA) has been tasked to implement these initiatives, in close cooperation with the Member States, the European Commission and other European agencies. This work is progressing as we speak, and it is expected that EES will become operational in 2022, followed by ETIAS and interoperability architecture. When combined with already existing large-scale IT systems in the EU (the Schengen Information System, the Visa Information System and EURODAC), these are the building blocks of the **new information architecture for border management and internal security** in Europe, which should be available by 2024. This will deliver two major operational benefits to border agencies:

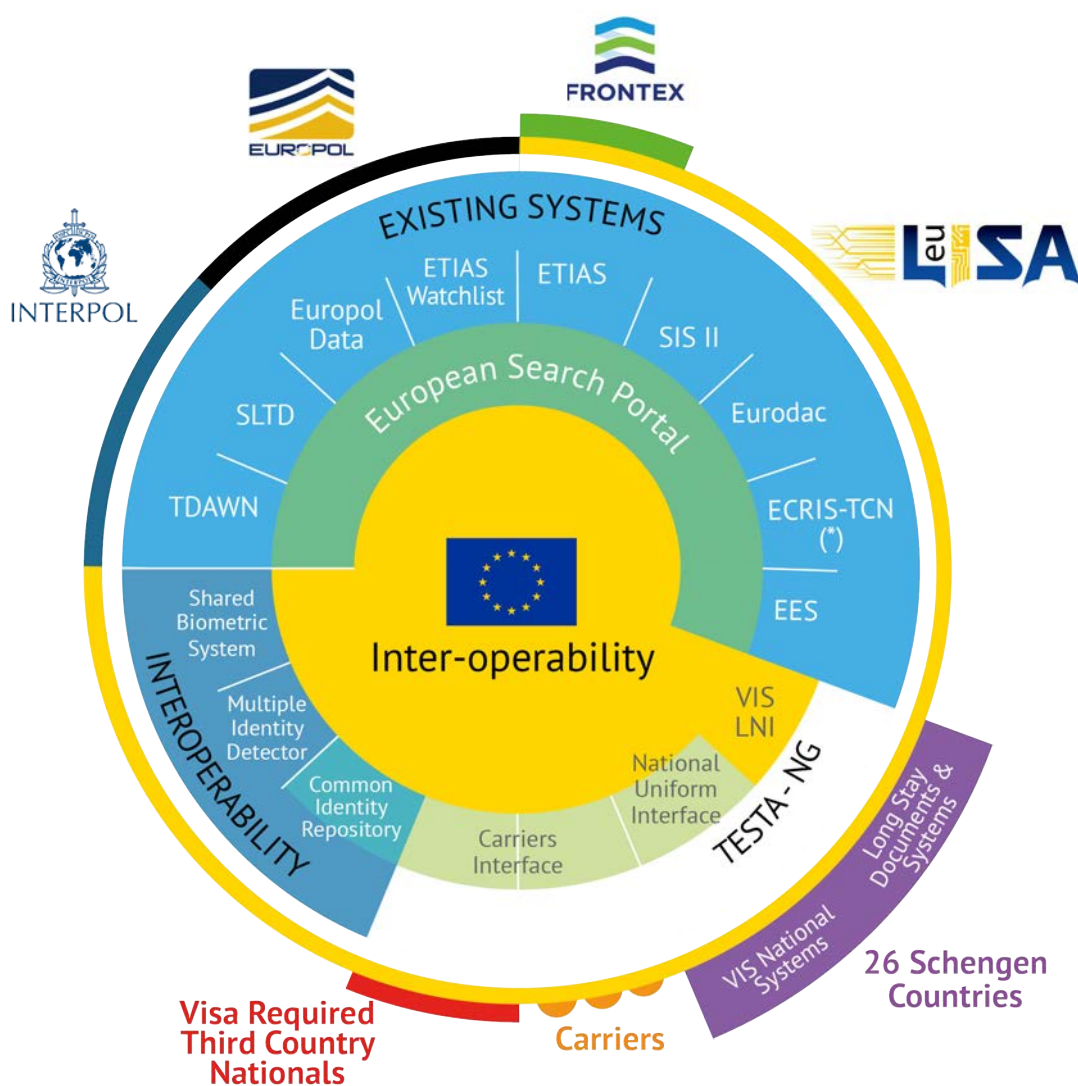
- it will facilitate faster and more efficient access to information;
 - it will establish a new and comprehensive approach for identity management, using a combination of biometric and alphanumeric data.
- However, once deployed, the

ability of this new information architecture to deliver its anticipated policy objectives and operational benefits will depend largely on the quality of the data fed into it; and timely and efficient access to the information extracted from that data. For this reason, alongside it Europe has started the deployment of a **new eco system** of devices and solutions for acquisition of raw data and access to information for the purposes of border management.

Implementation of the new European information

of management of the external borders of the EU. It is also a huge challenge for all the actors involved in its implementation.

However, it by far is not only a technical initiative, but also part of political response of the EU to the concerns of the EU citizens about internal security, migration and management of external borders. It seeks to change fundamentally the way border guards work. For this reason - alongside with technical developments - there are number of strategic challenges that need timely response, in particular:



architecture for border management and internal security is probably the most complex and ambitious initiative in the last decades globally, aiming to develop further efficiency

- **Readiness of the industry:** implementation of the new information architecture for border management in the EU requires substantial redesign of existing

border infrastructure, and massive deployment of new equipment and solutions that fit for purpose. This is especially valid for land and sea borders. New equipment and solutions are an essential element of the new eco system for border management, and a key prerequisite to ensure the quality of raw data collected at the external borders. However, indications from industry regarding its ability to address this huge new demand have thus far been contradictory. So - is the industry up to this challenge and able to provide viable end-to-end solutions?

- **Business model and processes for border management:** the new information architecture for border management will place a powerful tool kit in the hands of border guards. However, to enable its full potential it cannot be simply plugged into existing business models and processes at the borders. They need to go through substantial redesign in order to integrate the new capabilities and to maximize their benefits for daily operations. This approach is also essential if we are to ensure coherence between strategic decision-making and operations. This is particularly important for complex areas such as border management that need to reconcile (at first sight) the contradictory objectives of facilitation of border crossings and prevention of threats.
- **The digital workforce:** deploying new digital technologies at the borders alone will not increase the efficiency of operations, for

so long as technologies are agnostic to their use. It will be necessary to leverage new capabilities introduced by digital technologies and workforce change to achieve more efficient day-to-day operations. Substantial capacity building efforts need to be put in place by the EU Member States to enable workforce transformation that will match the new needs and demands at the borders. Border guards need not only to learn how to use the new digital tools; but also how to create a change-ready environment which is capable of enacting the new business models and processes at the borders.

- **Integration of stakeholders:** today, border management is no longer a business only for governments and border agencies. In the digital age, **cooperation and information exchange** is vital for **efficient border management** since the challenges and threats are beyond capacity of a single governmental agency or country to resolve them. Therefore, in addition to redesign of business models at the borders it will be of utmost importance to integrate into them carriers, passengers, airport and sea port operators and other relevant actors.
- **Success is a matter of trust:** the success of such huge initiatives and transformations as the implementation of new information architecture for border management and internal security in the EU does not depend upon the amount of money spent on it, or the excellence of the technical solutions implemented. It depends

mostly on the perceptions of citizens for their added value, and to what extent they address demand for more efficient border management and stronger internal security. In other words, it is all about level of trust that governments and the EU as a whole are able to build with their citizens; that these initiatives address the right problems; and the data collected will be used for legitimate and limited purposes. Therefore embedding **adequate data protection safeguards** and **privacy by design** into the new information architecture from the very start - coupled with **strong and efficient cybersecurity measures** - are key enablers of the overall success.

To conclude, it is clear that **digital transformation of border management** in the EU and globally **will continue at high pace** in the coming years. At the same time, the ongoing globalization will increase **demand** from citizens for **more efficient and customer-centric services** and will leave no choice to the governments and border agencies but to increase pace of utilization of digital technologies. Their ability to see beyond technical developments and to recognize the challenges above will be crucial for their success in delivery of border management services of the future. These services will be built around personalized approach, information-driven operations, integration mindset and commitment to efficiency.

Krum Garkov is the Executive Director of the The European Agency for Operational Management of Large-Scale IT Systems in the area of Freedom, Security and Justice (eu-LISA).

Remote pre-enrolment for eTAs, eVisas and Trusted Traveller Systems

REMOTE PRE-ENROLMENT

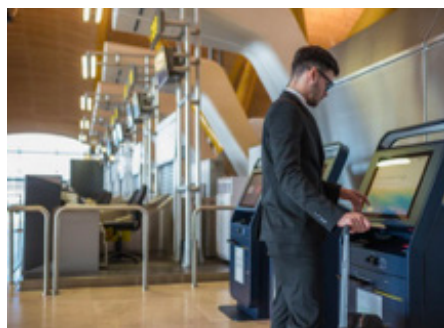
Now is the time for a digital transformation

By Carl Gohringer, WorldReach Software



Travellers are accustomed to using e-Gates and kiosks that utilise ePassports and facial recognition at border control and immigration. This is no longer novel and is readily accepted by most.

However, Governments' interaction with foreign nationals remotely, at a distance and before they travel, is ripe for digital transformation. Given the significant level of cooperation, standardisation and effort made by passport agencies worldwide to embed a secure chip into almost every passport, there is an opportunity to enable a remote digital identity verification channel.



The Potential Benefits are Significant

Benefits can broadly be categorised as:

- **Reduced Friction and Cost**
Reducing friction and cost in the process of interacting

with travellers, before their journey starts.

- **Enhanced Security through Remote and Early Capture of Biographic and Biometric Data**

Capturing accurate, secure and verified data earlier, before the visitor arrives.

- **Maximum Flexibility in Defining Passenger Segmentation and Policy**

Allows rapid flexible policy adjustments based on earlier access to trusted and secure traveller details; enables enhanced ability to segment and facilitate processing on arrival.

There is potential to digitally transform the way in which governments interact with travellers.

Traveller Segmentation

The following serves as a broad categorisation of how travellers may be segmented:

Citizens

Returning residents or citizens travelling or living abroad that are entitled to unconditional entry.

Beneficiaries of a Free Travel Zone

Citizens of another nation participating in an international treaty allowing freedom of movement with the receiving

nation that are not subject to any pre-processing.

Examples include:

- Republic of Ireland / United Kingdom Common Travel Area.
- Australia / New Zealand (ANZ) Trans-Tasman Travel Arrangement.
- Member States of the European Union.

Visa Nationals

Individuals who need a visa to enter, even for short periods. The application process can be onerous.

Non-Visa Nationals

Individuals who do not need a visa to enter for short periods.

Trusted Travellers

Individuals from other countries who have enrolled into Trusted Traveller and expedited border control programmes designed for pre-approved, low-risk travellers.

The Advance Capture of Passenger Details Before Travel: eTA Programmes

Governments are increasingly looking to capture information about Non-Visa Nationals before they travel, using Electronic Travel Authorisation (eTA) programmes.

Examples include:

- The USA Electronic System for Travel Authorisation

REMOTE PRE-ENROLMENT

(ESTA).

- Canada, Australia, and New Zealand eTAs.

Other Governments have announced plans to implement eTA programmes, in conjunction with enhanced entry-exist systems.

Examples include:

- The European Commission's European Travel Information & Authorisation System (ETIAS).
- The United Kingdom's eTA programme.

Existing eTA programmes rely on manual data entry by the traveller and are prone to data quality issues.

Today, new eTA programmes have significantly enhanced capability available to them.

Expect More: The Current State of Technological Capability

New eTA systems can benefit from technology and experiences learned from significant Government programmes.

Recent advancements easily and affordably enable a remote traveller enrolment capability, using travellers' own mobile phones and ePassports. This is due to rapid innovation in multiple areas:

- Pervasive availability of NFC to read ePassport chips.
- Readily available cloud computing resources.
- Remote facial biometric capture and genuine presence assurance.

WorldReach Software has developed solutions to enable travellers to unlock the power of the chip embedded in their

ePassports, using their own mobile phones.

eTA, eVisa and Trusted Traveller systems can benefit from remote pre-enrolment of trusted, validated and secure digital data sourced from ePassports coupled with genuine presence assured biometric data.

Overview: Different Levels of Reliability and Security of eTA Systems

eTA systems entail the traveller supplying their passport data to the destination government before they travel.

Legacy eTA Systems: Manual Entry of Data

Legacy systems do not rely on automated and secure data retrieval from passengers' travel documents.

- Passengers typically type in their own data.
- There is minimal data validity checking.
- There is no capture of biometrics.
- It is highly prone to data entry errors (as high as 20-25%).
- Inaccurately entered data results in airline check-in failure.
- This results in high exception handling cost and bad PR.

Level 0 Mobile Phone Digital: Passport MRZ and Data Page Capture

Early digital systems can employ remote optical capture of a passport's data page with optical character recognition (OCR) of the Machine-Readable Zone (MRZ).

- This resolves many data quality issues.

- It reduces exception handling issues at airline check-in.
- It is not secure as it is prone to document tampering.
- Fraud may not be detected until inspected by a border guard.
- There are higher rates of manual adjudication.

Level 1 Mobile Phone Digital: Remote Digital Chip Read Using NFC

Remotely reading ePassports' embedded chips has only become viable recently with the advent of this capability on iPhones. This is now immediately and widely available using passengers' own mobile phones.

- Reading data directly from ePassports' chips resolves almost all data quality issues.
- It eliminates most exception handling issues at airline check-in.
- Document authenticity is assured using digital signatures on the chip.
- Earlier opening of the chip results in earlier accurate traveller information.
- Allows the capture of the biometrics from the chip resulting in more accurate biometric matching.
- There is no assurance that the person applying is the valid owner of the document until passenger's arrival at the receiving border.

Level 2 Mobile Phone Digital: Remote Digital Chip Read + Genuine Presence + Live Biometric

The strongest possible assurances are achieved by coupling Level 1 Digital with the capture of passengers' live, genuine presence assured

biometrics during the application.

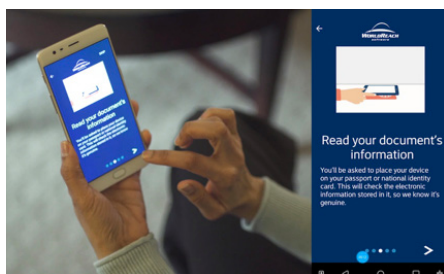
This:

- Incorporates a genuine presence test to ensure the right person was present.
- Captures a live biometric.
- Provides assurance that the applicant is the genuine owner of the document.



- Provides the highest possible level of checks at the point of application.
- Detects fraudulent applications before the applicant travels.
- Enables cross-referencing captured biometrics across multiple applications.
- Allows maximum flexibility in passenger segmentation and expedited border control programmes for pre-approved, low-risk travellers.

Watch it in Action



<https://vimeo.com/331228478>

Is it Viable?

WorldReach Software has been directly involved in the

deployment of relevant systems:

Canada's Chain of Trust Demonstrators

In Canada, IRCC (Immigration, Refugees and Citizenship Canada) and CBSA (Canada Border Services Agency) have been building a demonstrator called the Chain of Trust. Using WorldReach's eIDV service, low-risk travellers will be able to register remotely using only a mobile phone, allowing them to use automated border clearance systems upon arrival.

UK Home Office EU Settlement Scheme (EUSS)

3 to 4 million EU Nationals residing in the UK need apply for a new "Settled Status". The Home Office chose to offer a digital application process using WorldReach's eIDV service without the need for in-person document checks.

Following the release of the service in March of 2019, more than 3.3M people have applied as of 31st March 2020.

Writing in The Guardian on 6 September, the Home Office Minister, Brandon Lewis, said: "More than three-quarters of applicants are choosing to use a specially created app to prove their identity".

The high rate of digital adoption of this service is a testament to its ease of use and the public's trust and acceptance of the digital capability.

The Home Office's EUSS eIDV service is likely the single largest digital programme in the world to date enabling individuals to remotely assert and supply their identity in a self-service manner using their own mobile phone and government issued document.

In Summary

Travellers are familiar with automated, self-service immigration systems using their ePassports and facial recognition. They are increasingly demanding convenient, remote, digital service provision from Government. Border Agencies already benefit by operationally segmenting arriving travellers. Many are looking to capture information about Non-Visa Nationals prior to their travel using Electronic Travel Authorisation (eTA) programmes.

New eTA, eVisa and Trusted Traveller systems can now benefit from remote pre-enrolment of trusted, validated and secure digital data sourced from ePassports coupled with genuine presence assured biometric data.

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Challenges of managing global events during political situations and global pandemics

by Martin Hill, Conference Director
IBMATA Events

It has been an unprecedented time for the world, with the COVID-19 pandemic spreading across the globe at an unstoppable rate. This has had a direct impact on world travel, which all but stopped, allowing governments to focus on slowing down the outbreak within their own country. Due to this, we had no choice but to postpone our IBMATA Summits in both Asia and Europe until later in the year.

All of us here at IBMATA would like to thank our speakers, sponsors, partners and of course our members for being patient with us. Our aim hasn't changed. We intend to put together international conferences with a high-level speaker line-up discussing the latest developments and technologies being used at global border management, as ever. We are already lining up an impressive agenda for both events.

We have certainly been unlucky with our recent events. Before the COVID-19 pandemic broke out in China in January, we had to cancel 2019 conference and exhibition scheduled in New Delhi, India in late November. Due to ongoing issues along the India-Pakistan border – entirely outside our control - we were informed by the

Indian Intelligence Agency that we were not permitted to host the event in India at that time. Once we were informed of this outcome, we considered what alternative options were viable to host our Asia show; and we came to the decision to run our Asia show back in South-East Asia in Singapore in February 2020.

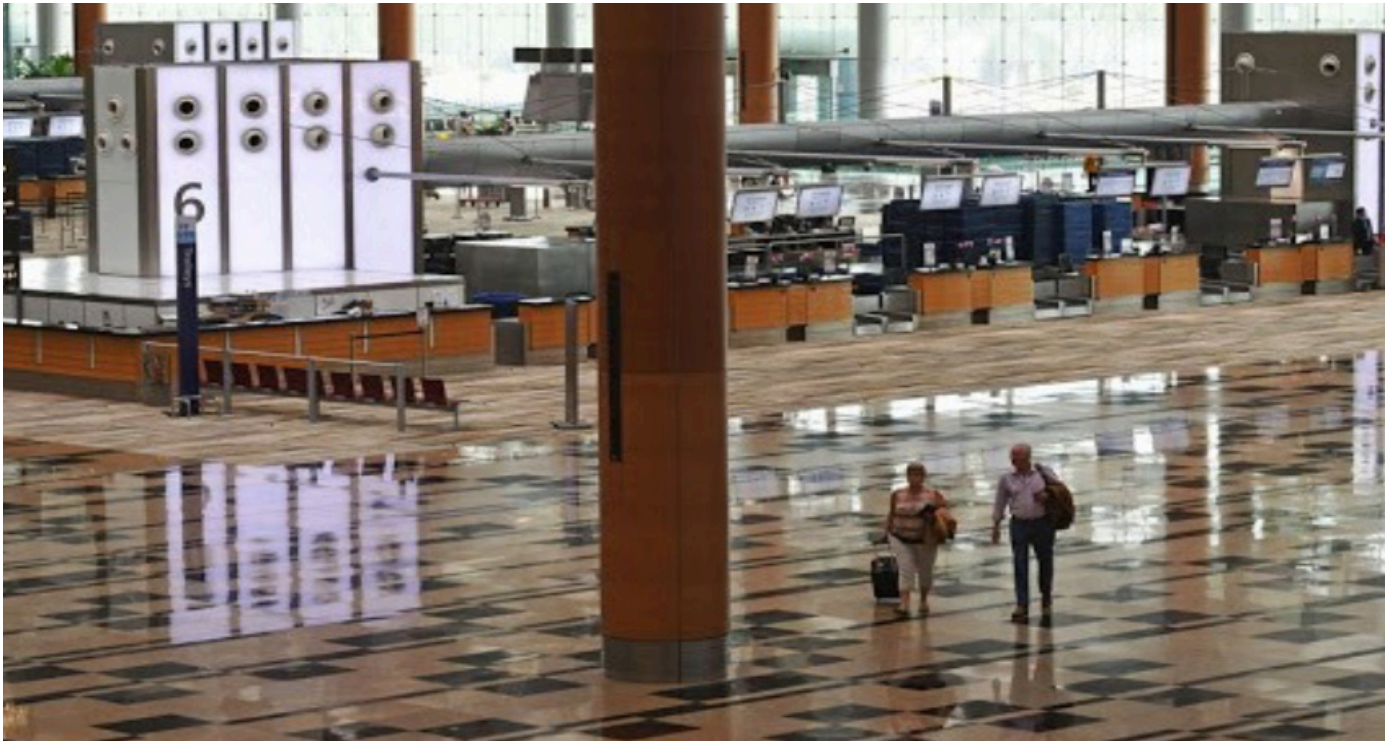
Whilst we were busy putting together a new agenda for the event, we saw the outbreak of the coronavirus in China; and noted that other countries in the region (including Singapore) were being affected. In late January, we received some international speaker cancellations due to travel restrictions in place in their

own countries; and on Monday 10th February 2020 the Singapore Government asked businesses to advise their employees to work from home and to avoid participating in large indoor and outdoor gatherings. This automatically meant that we had no choice but to postpone our planned event. We have now rescheduled our IBMATA Border Management & Technologies Summit Asia conference and exhibition to the **23rd - 25th February 2021** at the Concorde Hotel in Singapore.

After postponing our Singapore show our attention turned to our IBMATA Border Management & Technologies Summit Europe



Empty restaurants in Singapore



conference and exhibition which we were hosting in Brussels, Belgium for the first time. With the event taking place in Brussels, we were (and still are) working closely with EU-LISA and other EU Border Agencies to understand the key border management issues facing them over the next few years. Hosting the event in Brussels allows for a strong gathering of leading European agency officials to participate; and provides our international attendees with an in-depth update on the current border situations across the European Union.

The Brussels event was scheduled for the 12th – 14th May 2020. However as the coronavirus spread through Europe we had many challenging conversations with all the stakeholders involved in the likely length of the lockdown, and whether or not the event could still take place in May. The IBMATA team were monitoring the situation both in the United Kingdom as well as Europe, as countries were

experiencing the coronavirus peak at different times. Some nations were keen to open businesses and their borders as quickly as possible; where others were taking a more cautious approach. Eventually, we agreed a new date of the **10th – 12th November 2020** to host our event in Brussels, Belgium.

The reason for postponing the event until November is that this should allow enough time for the COVID-19 pandemic to have calmed, and for international travel to take place. We believe international travel will be the final restriction to be lifted as the main focus for governments is to stop the spread of the virus within their own countries before allowing international citizens to enter their borders.

It has been a challenging few months for the IBMATA team who have been planning, monitoring and rescheduling our events across different time zones and dealing with many different stakeholders who help make our

IBMATA events a success. We fully appreciate your understanding and being flexible and patient with us whilst we have rescheduled events and locations. The safety of our attendees is the main priority for us and we want to ensure all those involved can travel without any restrictions and worry.



Brussels' empty streets during lockdown



Our IBMATA Border Management & Technologies Summit
Europe 2019, Istanbul, Turkey

So at the time of writing our 2020-1 Border Management & Technologies Summit events are scheduled as:

- IBMATA Border Management & Technologies Summit Europe, Crowne Plaza Le Palace Hotel, Brussels, Belgium, 10th – 12th November 2020
- IBMATA Border Management & Technologies Summit Asia, Concorde Hotel, Singapore, 23rd - 25th February 2021

Once again we would like to thank all our IBMATA members who have been a great support to us during these uncertain times. We hope that you and your families are all safe and well; and we look forward to meeting you in Brussels in November 2020.

Brexit and the Irish border: upholding UK customs sovereignty on GB - NI trade under the Northern Ireland Protocol

By Hans Maessen

BREXIT



In the future EU – UK Free Trade Agreement, adjusted customs procedures for Northern Ireland must be agreed on to restore and uphold UK sovereignty over its customs territory, to provide for minimal trade interference and which should be simple to implement. NI will be part of the UK customs territory, but will apply EU product regulations. All customs procedures must take place as goods are traded across the Irish Sea. This article assumes that a Canada style FTA is agreed between the EU and the UK that provides for zero tariff and zero quota trade.

This concept distinguishes 3 kind of goods:

1. livestock and veterinary goods of animal origin which must be declared, checked and inspected when they enter the Island of Ireland.
2. sanitary and phytosanitary (SPS) goods. These agricultural goods of non-animal origin, can be declared for import as they enter the Island of Ireland, but also at an inland destination.
3. all other (industrial) goods. These goods must apply EU standards, which check is included in standard customs

declarations at a port or an inland destination.

Operations in ports should have limited procedural variations and exemptions for easy automation and to facilitate green lanes. Facilitating inland customs procedures can prevent port congestion and increase logistic flexibility. Only existing customs techniques should be used so implementation can be swift and simple.

The UK wants to limit interference in internal UK trade as much as possible making maximum use of green lanes. For this Trusted Traders in GB and NI should be able to make use of Movement Certificates, a concept previously proposed and advocated by the EU in the first Withdrawal Agreement. Movement Certificates are issued for:

- goods of UK origin that comply with EU regulations and fall under the FTA and
- goods which are destined for and bought by a registered NI trader.

A registered NI trader is a NI company that can show a goods administration which proves that goods which are not imported from UK under the FTA do not enter the EU common market.

A Movement Certificate can be applied for and issued by

UK customs for individual transactions or issued by an authorised trader under a customs permission. It can take the form of a document issued by customs or a statement on the invoice that accompanies the goods with a unique reference to the seller, buyer and the transaction. The EU already uses similar EUR and ATR (Movement) Certificates for preferential trade.

Direct east-west trade between GB and NI mainly uses the ferry from Liverpool to Belfast with only three alternatives:

1. goods accompanied by a Movement Certificate
2. goods to be declared for import into NI
3. goods accompanied by a transit declaration

Transactions with a Movement Certificate are eligible to use 'green lanes' with no formalities. Random checks will be done to monitor if the transactions that make use of this green channel are eligible to do so. Misuse will lead to the withdrawal of the customs permission to use the green lane.

Veterinary goods and SPS goods for direct consumer sale can also be eligible for a Movement Certificate. This is to facilitate the supply of consumer goods by supermarkets and others.

BREXIT

Specific requirements, in line with EU regulations, will be set in the permission to use Movement Certificates in these cases.

Goods which are not eligible for the green lane must be declared for import into NI or must be accompanied by a transit declaration.

All goods entering NI and destined for RoI must be accompanied by a transit declaration. This prevents UK interference with EU imports. These goods can be declared for EU import at the destination in RoI. Livestock and veterinary goods should be imported in RoI through Dublin.

Goods destined for an NI trader ('importer') without a Movement Certificate must be declared for import as they enter NI. If these goods are of other than UK (GB) origin, EU duties and regulations apply. If the importer has a permission as a registered NI trader no import duties must be paid. However, if the imported goods enter the EU market, then the importer is liable to pay the EU import duties.

If the Joint Committee concludes that goods have entered the EU internal market without payment of the applicable duties, then the EU can claim the import duties from a fund provided by the UK for such cases. The UK will hold the illegal trader accountable for his actions and will collect the duties from him and withdraw his customs permission as a registered trader. If the importer is not a registered NI trader, then he must pay the EU import duties.

He can reclaim the duties if he can prove that the goods have not entered the RoI/EU.

Indirect east-west trade via RoI mainly concerns ferry traffic from Holyhead to Dublin. To prevent interference of Irish customs in internal UK trade, all goods from GB traded with and transported to NI via RoI, must be transported and covered by a transit declaration. The transit declaration must be opened in Holyhead, so it is available when the ferry enters the port of Dublin. The transit declaration must be closed at an inland customs office in NI or at the premises of a NI authorised consignee. No import declaration in NI is necessary if the goods are accompanied by a Movement Certificate. A regular NI import declaration is necessary for all other cases.

Direct west-east trade from NI to GB mainly concerns ferry transport from Belfast to Liverpool with only two alternatives. The goods are accompanied by a Movement Certificate (Green lane, no declaration required) or the goods are accompanied by a Transit declaration. A Movement Certificate can apply to goods that are traded within the UK or under the EU-UK FTA. All other goods need to be accompanied by a Transit declaration.

Export from RoI via NI can only be done by declaring the transaction for export in RoI, followed by a transit declaration to any destination. This is to prevent that UK customs has any interference with EU export

formalities and regulations.

Indirect west-east trade from NI to GB via RoI mainly concerns ferry traffic from Dublin to Holyhead which always needs to make use of transit. No NI export declarations will be required for these transactions.

There are three ways goods can enter GB in Holyhead:

- Irish goods accompanied by a transit declaration destined for the continent can make use of the green lane.
- (NI) goods accompanied by a transit declaration and a Movement Certificate destined for the GB. The transit can be closed in Holyhead and the truck can use a green lane.
- All other goods must be declared for import into the UK. This will mainly be Irish goods sold to the UK.

The central issue is if the EU trusts the UK to implement the proposed customs procedures in such a way that they are effective so that the integrity of the single market is safeguarded. For this cooperation between ROI and UK customs is crucial to monitor and manage the agreement.

Hans Maessen is a former chairman of the Dutch Association of Forwarders and Customs Brokers and an independent Customs Advisor for business and government.

The post-Brexit Irish border: between the devil and the deep blue sea

By Katy Hayward

BREXIT



Rarely has a problem been moved so decisively from one border to another. As the clock ticked towards the third extension of the deadline for a Brexit agreement in October 2019, the UK and EU negotiators settled on an innovative proposal. In order to avoid a hard border across the island of Ireland as the UK (including Northern Ireland) left the EU, the boundary for UK/

EU trade would become, in effect, the edge of the island of Britain. The problem of the Irish land border would be moved into the Irish Sea.

In the space of fifteen pages, the Protocol on Ireland/Northern Ireland in the Withdrawal Agreement (17 October 2019) set out a 'specific solution' for Northern Ireland. The EU rules that would require a hard border

with the UK would not apply to the UK as a whole but just to Great Britain. As a consequence, instead of being felt on the island of Ireland, the friction associated with post-Brexit UK/EU trade would become manifest within the UK. In one fell swoop, the Protocol created a border within the UK internal market that would require the 'physical infrastructure (and) related





differentiates between the rules which will apply to Great Britain (as a non-member state) and Northern Ireland (where EU rules will apply). The Union's Customs Code will apply to all goods entering Northern Ireland. This will require a significant shift in border management in Northern Ireland.

One of the reasons why the UK and the EU were pleased to have reached this compromise and avoided a hard Irish land border is that managing the movement of goods across a sea border is that much more straightforward than a 500km land border with some 270 crossing points. There are only a few ports and airports in Northern Ireland and these are already equipped for customs facilitation. Moreover, there are two pre-existing Border Control Posts (BCP) for the import of animal products into Northern Ireland (Belfast Harbour and Belfast International Airport), and Larne Port has the facilities for the entry for livestock imports, although it currently lacks the status of a BCP.

Even with this head-start, it is a major challenge to introduce such measures and capacity in a very short space of time. In the best case scenario, businesses in the UK would be being prepared and trained for navigating the Irish Sea border, customs authorities' facilities and capacity to manage the change of status in that border would be being rapidly enhanced, the details of authorised economic operator systems appropriate for managing the Irish Sea border would be being outlined, and a clear timetable for the rollout of the new system would be known.

And all this has to happen amid an evolving diplomatic landscape, and with an eye to an as-yet-unknown final UK-EU deal (not to mention against the

checks and controls' that so many border experts had been engaged in finding ways to avoid on the island of Ireland (as per the UK-EU Joint Report of 2017)

The nineteen articles of the Protocol are followed by almost fifty pages of annexes. And it is in these annexes that the drastic nature of this agreement is revealed. Whilst remaining nominally in the customs territory of the UK, the Union Customs Code will apply in Northern Ireland. What is more, it will de facto remain in the EU's single market for goods. This means that over 280 pieces of EU legislation will continue to apply in the region. EU rules will apply in such areas as the technical regulation of goods, agricultural production and environmental standards, state aid, EU VAT rules and trade defence measures.

This offers the prospect of an extraordinary scenario when it comes to border management. One region being effectively part of two customs regimes would be extraordinary in international trade terms. And it is an extraordinary move for the EU to allow Northern Ireland free access to the single market for goods whilst being outside the European Economic Area. Perhaps, in the enthusiasm for getting a deal over the line, there has been rather too little recognition of quite

what an extraordinary move it is for the UK too. The UK internal market will have to accommodate the application of two different customs codes and increasingly divergent rulebooks for the production of goods. This will inevitably mean concrete and far-reaching changes for managing the movement of goods across the Irish Sea.

The UK has promised 'unfettered access' for goods coming from Northern Ireland into Britain. But at minimum, we know that movement of goods from west to east will have to entail a predeparture declaration (customs declaration, re-export declaration, exit summary declaration). Approximately half of sales (by value) outside Northern Ireland from the region is with Great Britain, and 62 per cent of this is in the sale of goods. The introduction of any new paperwork and customs registration requirements is a new burden and cost to be faced by any company trading from or with Northern Ireland, even those from Britain.

For the most dramatic change in trade will come in the movement of goods in the other direction, i.e. east to west. The European Commission's Brexit preparedness notices make it very clear that, across a range of sectors, the Withdrawal Agreement

backdrop of the Covid-19 crisis). To further complicate matters, although the UK is responsible for implementing the Protocol, Article 12 makes it clear that 'Union representatives shall have the right to be present during any activities of the authorities of the United Kingdom related to the implementation and application' of the Protocol. This implies that the question of the EU's technical presence (e.g. in the form of customs officers, VAT experts, veterinarians) is not a matter of whether it will occur but how. Given the uniqueness of this arrangement, there is no pre-existing model that will easily apply in this case.

All this is further complicated by the fact that (this being Northern Ireland) there are enormous political sensitivities involved. Having been opposed to any differentiated treatment of Northern Ireland through Brexit, Unionists are dismayed to see that the economic status of Northern

Ireland within the UK has been so considerably affected by this Protocol. There have been threats of anti-Protocol Loyalist protests at ports – a security and practical challenge that would come on top of the existing dissident republican threat (which notably included a Brexit Day plot to blow up a ferry crossing from Belfast to Scotland).

What is worse, Northern Ireland's connections to Britain have already suffered a serious blow through the coronavirus pandemic, with airlines collapsing and ferry services reduced to a minimum. How might trade across the Irish Sea be restored even as the capacity for checks and controls on that same trade be increased, and all as we hurtle towards the deadline for the UK-EU deal?

This is no mere side issue. The EU has repeatedly stated that it sees the UK's preparedness to operationalise the conditions of the Protocol as something of a

litmus test: 'A new partnership can only be built on the faithful and effective implementation of the Withdrawal Agreement'. The Irish border – albeit one now rising from the Irish Sea – could yet again prove to be a tripwire for a UK-EU deal.

Katy Hayward is a Reader in Sociology at Queen's University Belfast and a Senior Fellow of the ESRC-funded UK in a Changing Europe initiative, working full-time on the topic of Brexit and Northern Ireland/the Irish border. She is an Eisenhower Fellow (2019) and a Fellow in the Senator George J. Mitchell Institute for Global Peace, Security and Justice at Queen's University. She is also a member of the Centre for International Borders Research and on the Steering Group of the Institute of Irish Studies in Queen's.





Passenger targeting and analysis - staying ahead of organised crime

by Shaun Anton, CEO of MIB Managing International Borders DMCC, and Director of Intelligence & Targeting for IBMATA

My in-depth involvement with passenger profiling probably started in 2002, when I joined the newly-formed Heathrow (Immigration) Intelligence Unit. London Heathrow was the busiest international passenger airport in the World, handling over 63 million passengers that year. The Unit was formed in response to hundreds of inadequately documented passengers (IDPs) arriving at Heathrow Airport each month.

IDPs consisted of passengers arriving with forged travel documents, those unwilling or able to produce a passport, or impostors. In 2002 UK Immigration's Ports Directorate achieved its highest number of refusals at the border [50,362], and this probably had an impact on the number of undocumented migrants arriving in the UK.

The biggest risk was from undocumented passengers because their identities and origins could not be uncovered in 85% of cases. This had implications for national security, vetting asylum claims, and deportation.

Organised immigration crime groups go to great lengths in order to facilitate the international travel of irregular migrants. The

absence of a document used to board a flight disguises a person's identity, nationality, and travel history; but also protects the crime group by undermining the ability of control authorities and airlines to apply effective countermeasures.

The size of Heathrow was the biggest challenge. IDPs had been instructed to hide in toilets for many hours, to change clothes and use airside transportation to move between terminals. These methods were designed to disguise their travel routing. Hence the need for a coordinated

trends were being picked up too late to investigate effectively.

In the absence of adequate CCTV access, officers were deployed airside to observe arriving passengers, to conduct random checks, and to gather information on suspicious passengers. Once an IDP was 'linked' to a flight, examination of the airline passenger manifest would be undertaken to try and identify the traveller using a range of analytical techniques.

There was some friction with airlines over sharing passenger manifests, partly as a result of

Below: Algerian-born UK passport holder attempted to smuggle 452 counterfeit Spanish, Portuguese, French and Belgian passports from Bangkok to Glasgow via Amsterdam- he was known to UK as a boarding card swapper – booking details had been passed to Thai police in advance.

response across the whole airport.

The first challenge was to reduce the knowledge-gap from 85%. IDPs continued to arrive from unknown locations, on unknown documents, and



Carriers' Liability legislation, which levied a 2000 GBP fine for each 'inadmissible' passenger the airline carried. As our knowledge-gap decreased, the Unit was able to inform airlines about forgery & imposter trends. Linkage assisted in deploying airline liaison officers (ALOs) to hotspots overseas, who in 2003 denied boarding to 33,000 people. Governmental assistance to airlines went a long way to improving relationships and fostering co-operation; airlines could often take more assertive action than law enforcement, bearing in mind that ALOs were only deployed abroad in an advisory capacity. The ALO network underlined the benefits of driving down the routes which crime groups could exploit, and our unit played a significant role in tightening the control through the provision of timely and well-researched intelligence.

Passengers from EU transit points became a high risk: for example, we observed groups of Chinese nationals in identical grey suits, white shirts, grey ties, spectacles, and brief cases arriving as Japanese businessmen from Milan. Iranians were adept at disguising themselves as backpackers from the Far East; or resorted to dying and styling their hair, using coloured contact lenses to match Scandinavian passports.

Organized crime groups were debriefing their clients. When alerted to a risk from long-haul passengers with no checked baggage, the IDPs began to travel with a suitcase. When airlines were suspicious that checked baggage was too light, IDPs filled their suitcases with heavier items, such as South African Yellow Pages, Coca Cola bottles, or mangoes. Unclaimed baggage was forcing IDAs to expose their routings, so our unit set up a

baggage rummage team to find these clues.

We set up our own de-briefing team to interrogate IDPs about their journey; we adopted XL spreadsheets to capture IDP activity, including names used to travel.

The significance of recording travel identities became clear when the three Chinese undocumented



Above: Two suspects arrested at Bangkok apartment with 120 Italian passports, 120 Italian authentication stamps and 10 UK passport laminates (all counterfeit).

Third suspect attempted to bribe Thai police with THB 500,000 to release the other two and was also arrested. They were previously identified as boarding card swappers.

passengers arrived in different UK ports on the same day. Upon investigation, it emerged that they had each travelled on the same identity. It was discovered that a Japanese facilitator had bought three cash-paid tickets in her own identity, at separate airline desks in Amsterdam Airport. She had then passed her three boarding cards (and fake passports in her own name) to the Chinese nationals in the transit lounge.

We discovered that the hub of boarding card swaps was Bangkok Suvarnabhumi Airport, where forged documents were readily obtained, and it was possible to pass airside and return without flying. Intelligence suggested that there were Pakistani and Iranian gangs in Bangkok that would pay an expatriate \$200 to pass their boarding card to an irregular migrant. Penalties were low, and many expats saw this as a 'victimless crime'.

We began linking IDPs to

inbound flights from Bangkok: they had travelled on European identities. Some of the bookings were made in Christian names

only, and sometimes transposed on airline records-illustrating the importance of data quality and monitoring indicators of corruption.

Another incident highlighted an even more sophisticated scam: an undocumented Sri Lankan national arrived from Singapore, attempting to hide a deportation notice which said that he had flown FROM the UK on a counterfeit UK refugee document in the name 'Ernst Peter'. There was no trace of anyone in that identity having ever been in the UK, but intelligence recorded that a Dutch facilitator with the same forenames was a prolific boarding card swapper.

This scam was well thought out: the Sri Lankan had arrived in Singapore from Colombo using his own identity (probably as a transit passenger to a visa-free country). A facilitator travelled from Bangkok to Singapore with a

ORGANISED CRIME

false passport (using the identity ‘Ernst Peter’). ‘Ernst Peter’ flew from the UK and met the Bangkok facilitator airside, where he gave him the boarding card stub from the UK. ‘Ernst Peter’ didn’t even have to meet the IDP, as the Bangkok arrival made the exchange of documents. The Sri Lankan then presented himself at Singapore immigration as a UK ‘arrival’.

Intelligence on known boarding card swappers grew to several hundred nominals. Some had subsequently been arrested for possession of large quantities of counterfeit passports. The documents were a valuable commodity, and crime groups were using trusted personnel as document couriers.

I left the unit seven years later. We had reduced the number of IDPs to double figures, and the intelligence gap was now only 5%. Knowledge of the involvement of organised crime groups had increased considerably. A joint Police and Immigration team were successfully supporting prosecutions. Customs and Immigration profilers formed a joint team to conduct passenger

profiling using airline records.

In 2005 the UK Government issued a white paper “Controlling Our Borders- Making Migration Work for Britain”, which outlined a new e-Borders programme: “..Carriers will provide advance passenger information (API) and passenger name records (PNR) electronically”...”we will have a much clearer picture of passengers’ movements in and out of the country. This wealth of information will help border control, law enforcement and intelligence agencies, and other government departments to target their activity.”

Despite these initiatives, organised immigration crime groups remain agile to modern detection. Technology has removed the human element in automated processes such as check-in; bag drops; and home-printed boarding cards. This creates new opportunities for exploitation.

Immigration crime is now conducted airside, exploiting international visa waiver schemes and weaker biometric checks. Irregular migrants are carrying

counterfeit itineraries in case they are challenged about their intentions. So it is important to learn the lessons of the past: automated passenger profiling still benefits from human interpretation to understand and analyse ever-changing facilitation methods.

How the ‘model port’ utilizes the latest technology to increase secure, efficient travel and trade flow in the land border environment

MODEL PORT

By Bobby Watt,
Former Director, Non-Intrusive Inspection Technology, US Customs & Border Protection

Customs and border management authorities around the world have been supervising land border vehicle crossings in the same manner for decades despite the continual growth of cargo and passenger vehicle traffic. Many land border points of entry lack sufficient space and infrastructure to efficiently handle current volumes as well as the capacity to expand. In addition, manpower shortages faced by many customs and border authorities around the world have compounded the challenge. In this era of fighting terrorism, the ongoing opioid crisis, and the escalation of human trafficking, it is essential that border enforcement agencies identify and implement innovative processes and technologies to adapt. While governments are challenged to modernize quickly, smuggling organizations continually adapt their operations by improving fabrication and concealment techniques to circumvent detection.

In the sea and air environments, advanced cargo data is required to be transmitted to customs prior to a vessel's arrival at the port. This enables authorities to conduct risk analyses in advance and save time on processing upon arrival. However, in the land environment, little advance information on inbound

cargo and passenger vehicles is available. Also, clearance remains a primarily manual and laborious process for officials, including document review and oral interviews with the driver to determine if a secondary inspection is warranted. This process is ripe for innovation to increase efficiency and improve results.

U.S. Customs and Border Protection (CBP) is seeking to revise current operations and utilize the latest scanning and information technologies to minimize processing times for the ever-increasing influx of cargo and passenger vehicles at land border crossings. The new operating model will transform the land border clearance process by augmenting manpower with enhanced technologies to maximize security and efficiency.

Drive Through Scanning Technology

In the current operating environment, X-ray scanning is only conducted on a small percentage of vehicles in secondary inspection. Requiring all vehicles in a ‘model port’ environment to drive through a scanner in primary inspection will significantly enhance customs’ risk management capability. For cargo vehicles, drive through systems will be ‘multi-energy’ meaning they can scan the

driver's cab area with a safe dose of low energy radiation and scan a truck's trailer and cargo with high energy radiation. These new systems can scan over 80 trucks per hour.

Drive through scanning systems will reduce the typical scanning time by eliminating the need for the drivers to turn off and exit the vehicle. Scanned images for all vehicles will be packaged with a facial recognition scan of the driver and a Radio Frequency Identification (RFID) tagged document check largely eliminating the need to orally question the driver and saving additional time.

Due to limited available space at many ports of entry, the implementation of any new vehicle scanning systems must not reduce the number of lanes coming into a port. New systems will be fixed to the ground and require no major port renovations for installation. The new drive through systems possess a modular construction design with fewer mechanical parts than older mobile systems, yielding improved availability and reduced maintenance costs.

Model Port Land Border Operations

The following highlights how these new drive through scanning

MODEL PORT

systems and other innovative technologies will process land border vehicle traffic in a new 'Model Port' environment:

- as a truck arrives into the Port of Entry, the license plate reader (LPR) and/or the RFID transponder on the vehicle will send the cargo manifest and driver information to a remote command center staffed by CBP officers. An empty office at the port of entry, or a modular building can serve as the command centre.
- an automated Traffic Control Indicator signals the truck to enter the multi-energy, X-ray scanning system, which provides images and material characterization of the tractor, trailer and container cargo to the remote command centre.
- as the truck proceeds, it will travel over a newly developed under-vehicle X-ray imager embedded in the ground. This innovative system will scan areas of the vehicle that current imaging systems cannot, such as gas tanks, oil pans, mufflers, floor beams, spare tires and drive shafts.
- The system utilizes backscatter scanning technology, which provides an image superior to many predecessor systems, showing organic anomalies with efficiency and accuracy from bumper-to-bumper and for the full width of the vehicle. This system allows a vehicle to pass over it at 2-10mph (5-15kph).
- traffic control systems will be used to provide a safe scanning environment for

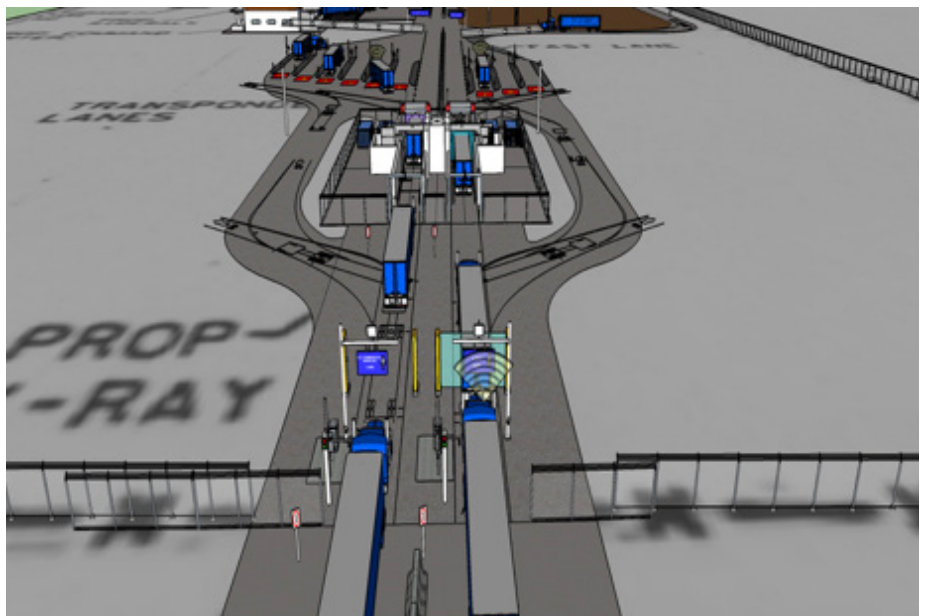
vehicle movements through and around the non-intrusive inspection (NII) scanning systems. Gate arms may be used for vehicle traffic control providing a metered vehicle flow at the entrance and exit of the NII system.

- the images from the overhead and under-vehicle scanning systems will be combined with the manifest and driver information and transmitted to a single operations command centre for analysis and adjudication.
- while officers review the images, the truck will be directed into an adjudication staging lane via signals and signage where a facial recognition check of the driver and an RFID document check will be performed. Audio and visual communication with the driver will be maintained from the command centre. A reviewing officer will decide to release the truck and driver or refer them to

secondary inspection.

- an area surveillance system will be included with the NII scanning systems to satisfy safety and security requirements while providing real-time and recorded video surveillance of NII operations. The area surveillance function ensures drivers are responding to CBP officer instructions and provides the command centre with situational awareness.
- While smugglers will always seek to adapt, the concept of operations and technology described above will significantly inhibit their ability to do so. The man hours freed up through increased automation will allow officers to conduct new risk mitigation tactics, such as roving with new hand held backscatter X-ray scanners, which are small, lightweight, and provide excellent imaging capabilities.

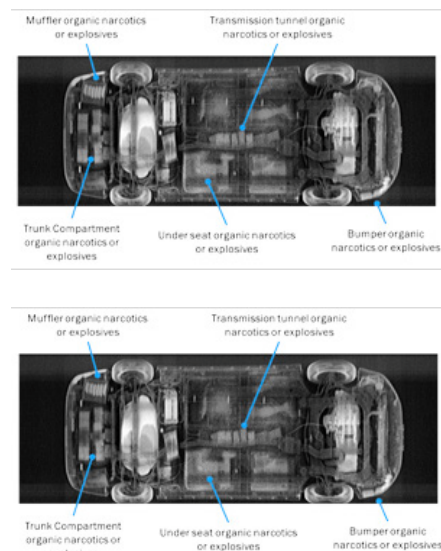
See illustration below:



The 'Model Port' concept applies a similar approach to the processing of passenger owned vehicles (POV) in the land border environment, utilizing a combination of under-vehicle and portal-type scanning systems, license plate recognition, and facial recognition to achieve increased efficiency. All systems incorporated into the POV model port must meet the stringent CBP and ANSI radiation safety standards. The images from the two NII systems along with the facial recognition and travel documentation will be incorporated into a data package uniquely and sent to the Operations Command Center where officers will review the information and will release or direct the POV to secondary.

The new under-vehicle X-ray imager enhances the NII inspection process for commercial and POV vehicles. The easy to interpret imaging provides Customs inspection Officers insight the most difficult

concealment locations making the inspection process more efficient and comprehensive. The following illustrates the value these systems provide.



Conclusions from the Model Port Concept

The powerful combination of new inspection and recognition technologies in the model port concept has tremendous potential to significantly increase throughput as well as maximizing security at key land border crossings. This example of innovation in both process and technology to overcome constraints of manpower and infrastructure can provide a meaningful template to border management agencies seeking to similarly adapt to growth in passenger and cargo volumes in the current dynamic threat environment.

Bobby Watt is a former Director for Non-Intrusive Inspection Division for US CBP. He retired in December of 2019, and currently working with Al Gina's group CT-Strategies.

Building and managing international road border crossings - part 2

How to deliver international best practice in road border crossings

by Jan Tomczyk

One of the objectives in renovating and expanding a border crossing is to create a good image for the country whilst simultaneously delivering international best practice standards. However, many border agencies do not have access to a description of international border crossing best practice, because there is no single source that describes an ideal road border crossing model which can be used as a model of international good practice.

In this scenario, border agencies involved in building and managing international road border crossings may wish to consider the following list of suggested international good practices (which are not exhaustive):

1. Commitment:

Get and sustain high level political and administrative commitment and mandate to improving border crossing management;

2. Legal Framework:

- Develop and approve the mandate;
- Assign responsibilities and accountabilities;
- Agree the governance method;

3. Stakeholder Coordination:

- Create a public and private sector coalition or working group for border crossings;
- Develop border crossing agency cooperation and integrated planning as a result of a Memorandum of Understanding (MoU) for infrastructure and management;

4. Planning:

- Carry out strengths, weaknesses, opportunity, and threat (SWOT) analysis for each border crossing;
- Prepare the vision statement, budgets and a measurable strategic objective;
- Describe the measurable benefits;
- Develop and agree on the work plan and the allocation of tasks, activities, and responsibilities;
- Identify human resources;

5. Design and layout:

- Develop and implement a national border crossing design guide;
- Do not allocate space at the entrance and exit point of barrier gates and gate

buildings for staff to carry out paper document checks. The authenticity of passports and other documents such as driving licenses will be conducted using passport and ID electronic scanners installed inside primary lane checking booths. There is no need to carry out another (duplication) paper document check at the exit;

- Road border crossings should have more than one entry and exit traffic lane to avoid congestion. Many road border crossings were built during the 1980s and 1990s, where a traditional one entry lane and gate was installed. The number of inbound and outbound traffic lanes should correspond with the traffic demand (trucks, buses, cars and other transport means);
- Truck and car and bus vehicles must be processed using segregated primary lanes because different types of vehicle may require a different type of check;
- Hazardous cargo must be segregated from all other traffic movements; and
- Space should be allowed to add extra traffic lanes and facilities in the future.

6. Traffic management

- a. Ascertain the current and future traffic volumes;
- b. Allocate segregated traffic lanes for cars, trucks and buses to eliminate mingling of traffic types and congestion;
- c. Install fast track traffic lanes for TIR and eTIR plus eCMR and AEO vehicles, and for those transporting perishable products;
- d. Consider electronic queue management and fee payment for peak periods; and
- e. Install enough primary lanes for trucks, buses, cars, and people taking into consideration daily and seasonal busy periods.

7. Information and communications technology (ICT):

The border crossing point (BCP) will need an ICT facility and equipment to achieve data exchange and connectivity between agencies and headquarters plus national single windows (NSW) plus:

- a. Interoperability and collaboration among border agencies to give the optimum performance in risk mitigation and reduction, security, and revenue collection;
- b. ICT policy incorporating security and privacy;
- c. Aligning the ICT strategy with the required objectives and making use of portable and mobile devices; and
- d. installation of equipment and software enabling eTIR,

eCMR and national single windows.

8. Infrastructure:

- a. Consider functional facilities for administration, safe and secure secondary vehicle inspections, seizures, detentions, duty-free, dormitories, clinic, primary lanes and booths, canopies, communications, power, water treatment, and closed circuit television (CCTV) and perhaps a fire fighting building plus a helipad for remote BCPs;
- b. Some borders might need one-stop-shop facilities - although their functions will diminish after national single window systems get implemented;
- c. Other borders will need infrastructure as a result of integrated or combined border management;
- d. Ideally the testing laboratories should not get located at the border but in the case where BCPs is 600kms away from the nearest town border agencies have located them at the border. The mutual recognition of laboratory testing certificates is not always addressed.

9. Border management:

- a. Operational and import, export and transit processing of cargo plus screening of bus and car passengers using integrated risk management (IRM) and targeting in place of 100 percent screening and inspection;
- b. Crossings are more efficient using integrated border management

(IBM) or combined border management (CBM)¹;

- c. A border agency Memorandum of Understanding (MoU) should include joint inspection teams (JIT) and joint enforcement teams (JET);
- d. The ideal scenario is a “one face at the border” in which Customs officers scan all passports and documents and in the case of discrepancy, alert the appropriate border agency to intervene;
- e. Car drivers and passengers must stay inside the vehicle when in the primary lane and a booth must be installed for passport, driving license and insurance check. In the case of a selected secondary examination, the car must be moved to a safe and secure secondary vehicle inspection facility;
- f. All the traffic lanes must be used otherwise the investment in the lanes, booths and automatic number plate readers (ANPR) is wasted. Some agencies keep the VIP traffic lane closed to other traffic;
- g. Bus passenger clearance is frequently carried out in a terminal building which can get congested when car and bus passengers are mixed. Adequate space for the average and peak level of passengers should be provided. Ideally, bus passengers should stay on the bus and have their passports scanned on board by handheld passport scanners;
- h. Trucks must be able to enter the Customs Control

¹ Coordinated Border Management (CBM) refers to a coordinated approach by border control agencies, both domestic and international, in the context of seeking greater efficiencies over managing trade and travel flows, while maintaining a balance with compliance requirements. Coordinated Border Management Compendium, Section 1.1. Coordinated Border Management – a new, old concept? www.wcoomd.org

ROAD BORDER CROSSINGS

Zone (CCZ) upon arrival without needing one or two paper document checks in order to access the border crossing. Passports and other documents will be electronically authenticated inside the CCZ by the Border and Customs agencies where necessary. Carrying out paper document checks at the entrance to border crossings is not an efficient use of staff;

- i. There is no need for 100 percent of vehicle x-ray scanning. Ideally, trucks should get selected for secondary examination 24-hours before arrival, using risk management. This is not happening in many countries but it is a requirement of the World Trade Organization Trade Facilitation Agreement (WTO TFA). There is no need for unloading docks at a BCP except in the secondary inspection facility. Trucks selected for secondary inspection must be moved to the safe and secure secondary inspection facility where complete unloading of the cargo and stripping of the truck allows for a 100% physical examination. Integrated risk management, targeting and the targeted 100% physical examination increases the detection rate;
- j. Ideally Customs should conduct a vehicle (car, truck or bus) secondary examination (documents and the physical examination of the truck and cargo) in the red channel, using the integrated risk management system. This should not be a simple glance at the opened rear doors of a container, or a look at the contents of a car boot. In the new safe and secure secondary examination facility the truck, car, and bus should be taken apart; and all the cargo should be removed from the container. Each pallet of goods and each box must be opened. This is why agencies must invest in a non-intrusive inspection equipment such as the endoscope, density meter (to check and detect if there is anything inside the tires and door panels etc.) plus rummage tools (to get access to internal spaces);
- k. Where Customs staff find illicit, prohibited and smuggled goods they should use a digital single-lens reflex (DSLR) camera capable of taking high-resolution photographs which can be used in a court of law during prosecution proceedings. Taking pictures using a mobile phone is not acceptable because the resolution is often not high enough to record every detail;
- l. Place electronic seals (e-Seals) on trucks with the radio frequency identification (RFID) function to track cargo from origin to destination. The container must be sealed under Customs supervision;
- m. Ideally a road border crossing should not be used to control and inspect imports and exports. Imports should get moved to inland customs depot (ICD) or inland customs port (ICP) and sometimes called a dry port (DP) or a land port (LP). The ICD carries out the import process and this is where the testing laboratories carry out their

functions. The border staff must register entry and exit of all vehicles and keep a record of any inspections (documents or documents and vehicle) and send the information to the central archive and share it with other border agencies. This information must be entered on the trader's profile;

- n. Customs and other agencies might wish to consider using the 24-hour pre-notification for import and export dry cargo and fuel tankers. This method requires the import and export declarations getting completed and submitted with all the necessary support documents by brokers in advance of arrival. The truck therefore spends less time at a border crossing. In addition, it allows the border agencies to carry out their risk analysis of the (ideally integrated) risk management. This is a good border management method which balances the need for border security and trade facilitation.

10. Equipment:

Many border crossings are not equipped with modern detection equipment; either because there is no strategy to keep abreast of new technology, or there is insufficient budget. Balancing the need for security and trade facilitation is not easy, but there are some modern detection technologies which can help. For example:

- a. Automatic number plate readers (ANPR) should scan registration numbers in the primary lane to determine if

the vehicle has a “history” i.e., is it on a Police, Ministry of Transport or Anti Narcotic or other agency databases. The result of the scan determines if the vehicle is allowed entry or is detained for further investigation;

b. Backscatter baggage scanners, walkthrough archway metal detectors, non-intrusive endoscopes, radiation detectors, CCTV, density scanners and handheld, mobile, and tunnel X-Ray scanners are the other equipment. As with the ANPR, it is important the X-Ray scanner has a database and a computer archive for storing the images. Ideally the detection equipment inside a bus passenger terminal building should help to reduce crowding and queuing. For example, a large floor level baggage backscatter x-ray scanner must have at least 2m of floor level rollers front and rear (ideally using the “Y” configuration) so passengers have the space to load their baggage onto the rollers and slide the baggage onto the conveyor. Installing two sets of entry rollers will help passengers place their luggage on to the scanner faster and will reduce queuing lengths;

c. An automatic vehicle number plate reader (APNR) system involves installing the readers in each traffic lane. This technology uses optical character recognition. It requires software to capture the vehicle number and connect the number to a location and registration database which will give the officer in a booth a yes or no response; a hit or no-hit. With a no-hit the

officer allows the truck to enter the Customs Control Zone (CCZ) of the BCP. In the case of a hit the officer will take the appropriate action according to the standard operating procedure (SOP). Using a vehicle number plate reader or scanner is trade facilitation and security tool because it adds a compliance record to the traders’ profile and in the event of a hit it provides a record of the traders and trucking company’s non-compliance profile. The driver information is also recorded because if the driver appears at any time at any border crossing he or she is immediately a risk and the appropriate action must be taken. The vehicle number plate reader must have a database of compliant and non-compliant registration numbers. Truck number plates must get scanned front and rear.

11. Standards:

- a. Border Agencies should comply with International standards including phytosanitary, health, food, veterinary, fuel testing, and vehicle weighing. Some countries do not recognize the test certifications from other countries, and insist on a laboratory test which can keep trucks waiting for hours and days at the border;
- b. Allocate workspaces for staff complying with national or international working space areas;
- c. Use international good practice quality of materials for buildings;
- d. Harmonize cross-border standards and regulations for the movement of goods, services, and business

travellers. For example, standardize maximum commercial vehicle axle weights and implement the 1982 International Convention on the Harmonization of Frontier Controls of Goods Article 5 referring to international vehicle weight certificates;

e. Harmonize phytosanitary certification and recognize the laboratory test certificates of other countries to eliminate double testing and delay;

12. Performance

The new border crossing must make a return on the investment (ROI). The ideal KPIs should include reducing the time for passengers and vehicles to cross the border i.e., is the border helping to get exports to markets faster? For countries that rely on tourism, is the border making the crossing faster and more pleasant? Therefore, managers and staff must be accountable for the performance which is determined by the capacity and throughput in the primary lanes and other facilities such as bus passenger terminals. Border crossing processing time should be recorded periodically using the Time Release System (TRS). The TRS is a World Customs Organization method to measure BCP import and export performance;

13. Human resources

- a. Develop and implement a continuous skills training program to ensure that all border staff and managers contribute to reducing border crossing times and improving security;

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- b. Architects, civil engineers and electrical and water engineers need skills training to design international best practice at BCPs.

14. Keep abreast of smart technology and border protection research

- a. Smart technology such as electronic gates (eGates) fitted with a biometric readers are increasingly being installed at airports to reduce congestion and passport queuing times. It is too early to say if eGates improve passenger and vehicle processing speeds at road borders but this is increasingly apparent

at some borders and is a developing market;

- b. The results of border protection research projects such as the intelligent deception detection through machine based interviewing should taken into account. Other research projects include: intelligent portable control system (iBorderCtrl), advanced data driven testing (ADDT), robus TRisk based screening and alert system for passengers and luggage (TRESSPASS), FOLDOUT (EU Horizon funded project 2020), a harmonized and modular reference system for all European automated border crossings (FastPass EU FP7 funded security project),

and BODEGA (H2020), automated border control gates for Europe (ABC 4EU), MobilePass (FP7), efficient integrated security check point (EFFISEC), trusted biometrics under spoofing attack (TABULA RASA FP7) and effective container inspection at border control points (C-BORD H2020). These and other projects need to be considered for best practice road border crossings of the future.

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Middle East & North African region borders strategy overview - selected case studies

MENA
REGION



By Ilya Zlotnikov, James Maskill, Callum Printsmith, and Imane Gilles, Cambridge University MENAF team

Within the context of ever-expanding globalization and international economic cooperation, our study reviewed border management strategies and practices in the Middle East and North Africa (MENA) region. In order to do so, we've analyzed three distinct case studies in the region: Morocco–Algeria, UAE–Oman, and Jordan–Israel. This overview provided a wide perspective on how borders are managed within the region, as the cases demonstrate different levels of cooperation and trust between countries. The border between Morocco and Algeria has been closed since 1994, considerably shrinking the extent of trade between two countries that share a 1,600km border. In contrast, UAE–Oman are both members of the Gulf Cooperation Council (GCC), and although they have had, and still have, minor geopolitical altercation, the countries have substantially increased their cooperation over the last decades. The Israel–Jordan case stands somewhere in the middle, and serves as an interesting example of how countries that don't see eye to eye on many subjects can still cooperate effectively around mutually beneficial goals. Each case study has different characteristics in terms of geopolitics, history, geography

and economic cooperation. But essentially, the challenges they face are similar – building trust and improved capacity to efficiently regulate the licit movement of goods and individuals while simultaneously assuring safety and mitigating risk. A wide overview of the similarities and differences between different case studies allowed us to draw a few general conclusions.

demonstrate how geopolitical considerations act as an external barrier to the promotion of increased economic cooperation between countries. Historical and more recent disputes between the countries are an impediment to the development of the much-needed mutual trust that can foster cooperation. Morocco and Algeria demonstrate an extreme example of this problem. Public sentiment between the



The relative geo-political instability of the region maintains security concerns as a prominent feature in border management strategies.

All three case studies

two countries has been notably favourable in recent years. And calls among liberal nationals within both countries have highlighted the outdated and unnecessary securitization which current border practice represents. Nevertheless, the

MENA REGION



are already demonstrating strong economic ties between them, relatively to the GCC average, but some improvements are still possible. Migrants constitute a very large percentage of both countries' workforces, and many of them work in occupations that require them to frequently cross borders. Therefore, creating a streamlined border process for residents, similar to the process that only citizens currently enjoy, will promote the productivity of both economies. Moreover, as part of diversifying their economies from Oil & Gas, the countries can strengthen their cooperation around tourism, through coordinated infrastructure investments, and the provision of a coherent border crossing process for tourists. Finally, opening the border between Morocco and Algeria will substantially increase the extent of trade between the countries. And will provide the much-needed economic support to border communities that are currently living under economic strain.

Smart border systems and technologies can be an effective solution for promoting cooperation without increasing security risks.

Some steps towards technological solutions to border management have already been made, such as the new e-Visa process enacted by Oman. But many other available technologies can solve the dilemma between increased trade and security concerns. The movement of individuals can be streamlined by biometric scans at border crossings, along with efficient risk assessment processes

border between the countries has been kept closed, although both countries are losing out economically from it. The remaining two cases demonstrate substantial improvements, but the situation is still far from being perfect. Aligned geo-political and economic interests considerably improved cooperation between Israel and Jordan. But the countries still remain suspicious of each other's intentions and capabilities. And this results in long border and customs checks. Finally, the UAE and Oman demonstrate that even relatively aligned countries can still find it hard to cooperate on some occasions.

Overcoming security concerns unlocks the vast potential of mutual gains through cooperation.

The smooth flow of people and goods promotes socio-economic well-being in both countries through increasing the

potential market for suppliers and expanding the choices that consumers face. This basic economic principle is very much evident in all 3 cases. Many advancements were made between Israel-Jordan and Oman-UAE, but there's plenty of untapped potential that could be leveraged further. The basic source of common economic interests between Israel and Jordan is trade. For Israel, the Kingdom of Jordan leads to GCC countries and their ever-widening markets. For Jordan, Israel is an entry point to the dynamic Mediterranean basin. This expanding cooperation can be extended even further to stronger cooperation around the tourism industry, and the creation of a destination duo between the countries. Moreover, allowing a larger number of Jordanians to work in Israel can potentially help Israel to fill its shortages in industry and tourism workforce. On the same note, Oman and UAE

via interviews and information collected through carriers. Trade can be enhanced by technology in several interrelated ways. Trusted trader schemes can be developed based on comprehensive risk assessments that leverage available background information on applicants. Then, a suite of technological solutions can be applied to modernize custom checks for both “trusted” and “regular” traders. Automated border control checks can verify person identity and check vehicle-related documentation. This type of scanning technology allows fast movement of drivers through the border, while sending an appropriate warning to relevant authorities when it detects abnormalities. Moreover, facilitating trading through an integrated software that is complemented by seal technology, will make it virtually impossible to change the content of goods in a shipment, without the knowledge of relevant authorities. These solutions are only a small set of examples for how technology can improve trade. The opportunities that border agencies are facing

in the technological realm are endless.

To conclude, there is no “silver bullet” or one-size-fits-all model that will improve the ability of countries in the MENA region to reap the potential benefits of globalization and increased international trade. An effective border management strategy must take into account the triangle of geopolitics, economics, and technology. Especially when low levels of trust act as a barrier to increased cooperation and trade. Nonetheless, the opportunities for the MENA region are enormous. The gradual integration of GCC countries and their planned diversification from Oil & Gas to service industries are expected to radically transform their economies. As these initiatives mature, the countries’ economies will become more and more connected, leveraging the benefits of economies of scale, comparative advantages, and global supply chains. Many positive steps have already been taken to promote greater cooperation within the GCC and the wider MENA region. In order

to further promote this positive trend in the future, policymakers must carefully design strategies that both highlight the economic benefits of increased trade and directly provide effective solutions to any security concerns that might arise. Technology can be seen as the intermediary element that allows security and economic growth to coexist. Countries can agree to start collaborating based on their trust of the technology, and through the collaboration itself achieve greater levels of trust between each other. Working together towards mutually beneficial goals can help countries in the region to overcome their historical disputes and tensions, and to create “a new Middle East” of prosperity.

Full Report available at
[https://drive.google.com/file/](https://drive.google.com/file/d/1p8OdesB5VVN2D3ZSajy3ae879gU_K7Ti/view)

[d/1p8OdesB5VVN2D3ZSajy3ae879gU_K7Ti/view](https://drive.google.com/file/d/1p8OdesB5VVN2D3ZSajy3ae879gU_K7Ti/view)



FAMINE IN YEMEN



Famine in Yemen - addressing the challenge of identity

by David Gerulski

Yemen, an ancient and starkly beautiful land, has a history as varied and fascinating as its people.

Since the time of the Sabaeans (+/- 1000 BCE), whose famous “Queen of Sheba” is mentioned in both the Quran and the Bible, Yemen has played a pivotal role in the powerful kingdoms and dynasties that left their marks on the Arabian peninsula. In more recent times, the British withdrawal to the north in 1967 led to a split into two separate nations. Though the two formally re-unified in 1990 and peace talks have been ongoing since 2016, the continued struggles have left the Yemeni government, economy, and people in dire straits.

Shifting Borders

A border is traditionally understood to be the geographic boundary of a political entity or the line of demarcation between one nation and its neighbours. Governments work diligently to control these lines to protect national stability, citizens, economies, and institution. They identify who enters and leave, excluding those they wish to keep out and detaining those they deem dangerous.

But the practical utility or function of a border may change

during times of war, natural disaster, famine, disease or other great upheavals. These events often result in uncontrolled and unplanned movement of people across and within borders. Borders become blurred and porous as people are driven from their homes in search of food and safety. We call these people refugees, and there are tens of millions of them around the world.

Similar, and equally disruptive, is this same kind of mass migration of people when it occurs within a country. These internal refugees, or “Internally Displaced Persons” (IDPs), overlap and mingle with refugees from other countries, forming a common set of challenges.

When nations are faced with multi-layered and potentially overwhelming challenges like this, a traditional focus on controlling cross-border movement may temporarily change so the the movement of internal and external refugees can be managed.

Yemen Today

Yemen is suffering through the world’s greatest humanitarian crisis. The scale of the human tragedy is difficult to fathom. Five years of internal military

conflict has forced millions from their homes - the largest number of “internal refugees” (IDP) anywhere in the world in this century. UN agencies report that 80 percent of the population – more than 24 million people – are in dire need of humanitarian assistance. Seventy percent can’t afford food, and more than 1 million cases of cholera have occurred since 2018.

The UN Office for the Coordination of Humanitarian Affairs says that an estimated 4.3 million people have fled their homes since the start of the conflict, including approximately 3.3 million people who remain displaced and 1 million returnees. Public services have broken down and only 51 percent of health centres remain fully functional, and medicine and equipment are limited. Access to safe water has become a major challenge and the lack of proper sanitation has increased the risk of communicable diseases.

Since violence broke out in late March 2015, conditions in Yemen - already one of the poorest countries in the Middle East - have rapidly deteriorated. In addition to the dire shortages of food, safe water, and adequate healthcare, nearly one million suspected cholera cases have been registered since 2018.

“People often don’t understand what ‘food insecurity’ really means in places like Yemen,” said Shannon Muriethi, Global Security Director for a Washington, DC-based non-profit focused on feeding the poor and needy around the world. “It’s hunger at a staggering scale driven by forces over which people have no control: war, famine, and ethnic strife, and more. It drives people from their homes by the millions, creates massive logistical problems in delivering food aid and in guarding that precious commodity against theft and waste. Identifying those in need – wherever and whoever they are – is a crucial part of this process.”

The UN’s OCHOA has also said that more than 20 million people are “food insecure” while a staggering 7.4 million people are at risk of famine. An estimated 4.3 million people have fled their homes since the start of the conflict, public services have broken down, and only half of health centres remain fully functional.

The Challenge of Identity in Delivering Relief

In many countries, people take the concept of “identity” for granted: birth certificates, a driver’s license, voter registration, citizenship papers, or a Social Security card are the norm and relatively easy to obtain. In other places, however, this is not the case. Systems for establishing and permanently recording and tracking identity are either badly outdated or missing altogether.

When the largest global humanitarian food relief agency mobilized to address Yemen’s crisis, they quickly realized they could not effectively do so in Yemen without first addressing the country’s lack of verifiable identity.

In Yemen, food relief could not be effectively distributed to those

in need without an accurate understanding of precisely where the help was needed and who needed that help.

The challenges were formidable. In addition to conflict, famine, and the lack of an accurate national ID database or legal identity

be impossible to develop and deploy.

To address this issue, the relief agency turned to Prodigy Systems, a Yemen-based technology solutions provider with expertise and experience working under conditions that often stymie



framework, nefarious elements within the country had begun to “game the system” of relief and aid, diverting food and monetary assistance into the wrong hands, further deepening the crisis.

Without first gaining an accurate understanding of both the “who” and “where” of the need, an effective food relief system would

other IT companies. Adnan Al-Harazi, CEO of Prodigy Systems, expressed pride in the work his company is doing. “This project is extremely important to us. We are honoured to be able to help lay the foundation of a project that will save the lives of so many of our fellow citizens.”

Tasked with developing a system

FAMINE IN YEMEN

for registering and authenticating each head of household and adult members of every family group in need—across difficult terrain and with minimal existing infrastructure—the Prodigy team quickly concluded a new, truly mobile, biometric enrolment solution was needed. This requirement, combined with the unique geographic, demographic, and political conditions, quickly led to the decision that fingerprint scanners from Integrated Biometrics were the only viable solution.

To receive food at an official distribution point, households must be enrolled in the database. This widely accepted approach not only ensures that only those truly in need will receive assistance but is designed to eliminate fraud and theft. In many famine-torn regions, misappropriation of food is common and can come from criminal elements eager to sell NGO-provided food on the black market.

A National Biometric Database for Those in Need

With this new system, household leaders are enrolled using a cell phone attached to an Integrated Biometrics FIVE-0 fingerprint scanner, which automatically feeds all ten fingerprints into the database developed by Prodigy. These fingerprints become a part of the individual's record to ensure the highest possible accuracy in both the enrolment and verification processes.

Once in the database, the records are de-duplicated to verify that no individuals have



been registered more than once. When aid recipients arrive at a collection point, they identify themselves with a single fingerprint. This process ensures that only individuals registered to receive food for their household will receive that assistance and prevents fraud and misappropriation of humanitarian assistance.

“To complete the enrolment, our team will need to visit as many as 80,000 settlements and enrol nearly a million more people, who are widely dispersed across great distances, so it’s impossible to have them come to a central point. Also, many of these areas do not have a reliable network infrastructure,” said Al-Harazi. “The Integrated Biometrics scanner connects to our mobile phones, so we can register citizens regardless of where they are. The scanner is extremely lightweight and draws only a tiny amount of

power directly from the phone, so we are not forced to carry heavy or bulky batteries.”

In areas where a cellular signal exists, enrolment information is immediately uploaded to the database. When no signal is available, the record is stored on the mobile phone or tablet until personnel are within mobile signal range.

Identity and The United Nations

The UN has recognized the importance of identity and has listed both digital identity and birth registration among its Sustainable Development Goals ([tps://sustainabledevelopment.un.org/sdg16](https://sustainabledevelopment.un.org/sdg16)) in 2016.

David Gerulski is Executive Vice President of Integrated Biometrics. Based in Spartanburg, SC, the company is a technological innovator in the area of fingerprint biometrics and works around the world in areas including law enforcement, education, voter and national identification, humanitarian relief and more.



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