SMART BORDERS & DIGITAL TRADE CORRIDORS

TRADE FACILITATION COMMISSION

Policy and Practicality in Partnership

In 2017, the European Parliament Policy Department for Citizens' Rights and Constitutional Affairs commissioned a concept paper for the post-Brexit border environment. The concept paper presented a new model for managing borders - Smart Borders 2.0. The basic principle of the new model was based on long-standing best practices at the border between EU (Sweden) and Norway and has subsequently been used by France in the post-Brexit solution for Eurotunnel.

In 2019, the WCO made the Smart Borders concept an international best practice. The WCO encouraged its members (including the UK) to find technology solutions that facilitate the flow of people, goods, and conveyances at borders while following the guiding principles for SMART borders: Secure, Measurable, Automated, Risk Management-based and Technology-driven.

The basic principle behind Smart Borders is moving border procedures to before and after the border. This is done by utilising technology, data, and proven trust through documented compliance records. This allows smarter risking and makes the border safer, faster, and more predictable. It requires pre-arrival data and information for risk management so that different control programmes can be applied in new and more efficient ways.

It removes the out-of-date approach of the border being a line on a map and replaces with the end-to-end movement of goods across frontiers. The ingestion of data rather than the single submission of two-dimensional transaction data.

When a pre-determined level of compliance has been established for a trader, all controls can then be carried out before or after the border. This process will make use of self-assessment, self-inspections, goods supervision and smart containers (track and trace of goods), alternative control and inspections sites (e.g., enroute, at destination, or at the traders' premises).

These methods are supervised and audited to maintain and increase compliance levels. The border crossing is simplified using smart technology such as tried and tested bar code scanning, automatic vehicle number plate recognition, and container and vehicle scanners.

Smart Border 2.0 Concept
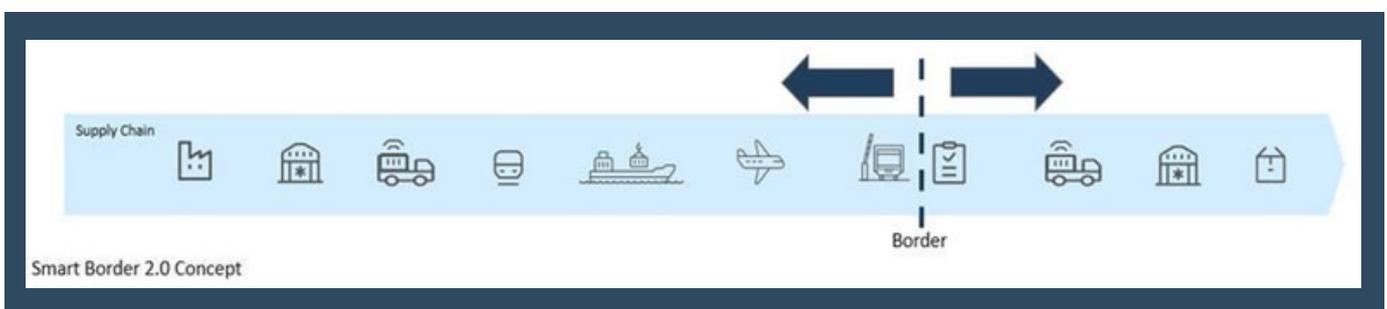
Smart Borders are digital borders, that make borders safer and more secure. They reduce cost and the risks of delays, making domestic trade more competitive internationally.

Digital Trade Corridor (iDTC)

Related to Smart Border, we have also seen the development of an end to end way for traders to move goods from A to B using so-called digital trade corridors (DTC). A DTC needs to be intelligent otherwise it risks becoming no more than a repository for international documents. The desired concept is to profile the trader, the movement, the type of goods, the controls that exist and the pitfalls that should be considered and/or avoided. An approach that is led by "tell me about this movement.." will enable the decision engine to ascertain what is required and what elements may require clarity – the iDTC will then establish what documents are required, who is responsible for them (see earlier section about incoterms®), and what areas need further clarity. Some examples of questions the iDTC might ask of traders include:

1. Is the country of preference the same as the country of despatch and if not have the goods remained under customs control (GSP goods, for example, will lose their preference status if cleared in the EU prior to arriving in UK, even if we also have a preferential trade agreement with that DCTS(formerly GSP preferences)country
2. Is there a conflict on the VAT rate to be applied and if so the iDTC should flag this an qualify the data at input.
3. Is there a potential for RGR (returned goods relief) and if so trader the trader have the original export MRN (Movement Reference Number) or copy documents.
4. Are SPS controls applicable and if so what level:-
   a. Low, medium or high risk
   b. Organic products – perhaps requiring soil certification
   c. Cites, for example Sturgeon Caviar (which is more common than you might think).
5. Are the buyer and seller related and has this influenced the price?
6. What prohibitions, restrictions and/or sanctions apply to the goods being moved.
7. Are you using simplifications?
8. What evidence of preference are you using? (avoid importers' knowledge).
9. Is a REX statement needed? Is the REX valid?

Collecting data is easy – identifying and collecting the right data is key. Furthermore, the iDTC should be on a continuous improvement path, learning from previous errors and updating to prevent these errors again. For example, incorrect duty calculation, wrong importer according to incoterms®, high (or low) value for the commodity code used.

Once the profile is established, the iDTC will create the document pockets which must be completed prior to being 'Border Ready'.

iDTC assess the requirements at consignment level
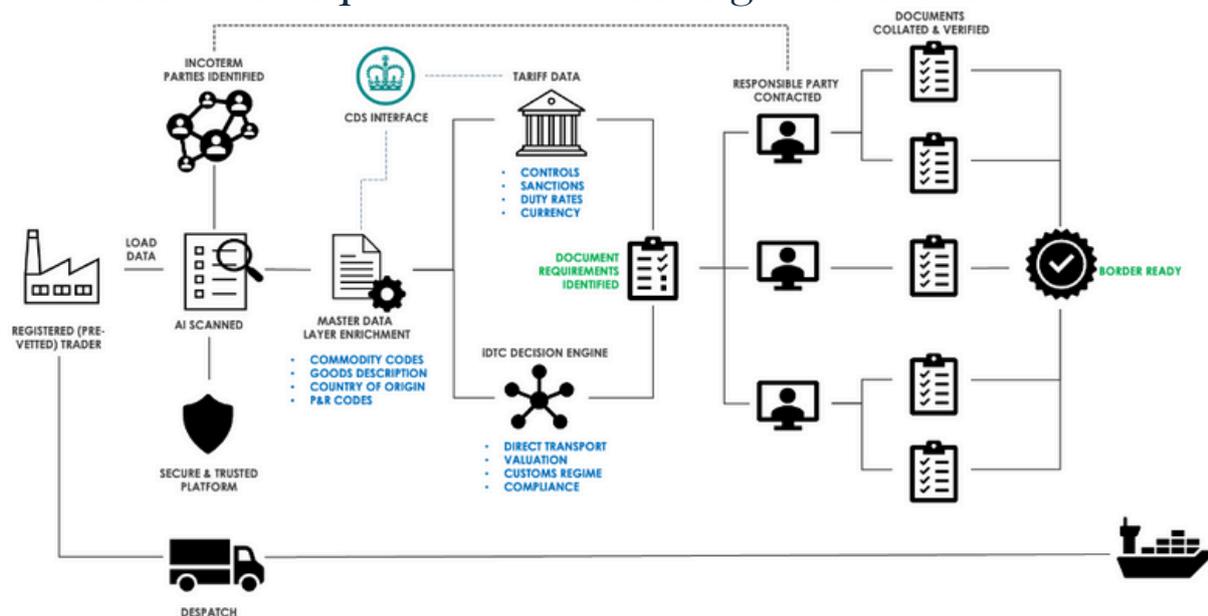
Border Trade Demonstrators and the iDTC

The Cabinet Office has established a BTD programme to determine how SIGNALS from the supply chain may be received by UK government border agencies and used to support their border management and risk assessment processes. It could be considered as an extension of the Ecosystem of Trust pilots that were run previously.

A SIGNAL is any information data set which may inform border agencies on the nature of consignments, their location, transport route and conditions and key EVENTS such as health checks, departure location and times, entry and exit details into and out of Ports etc.The BTD is analysing use cases of consignments of Chilled Poultry products from the EU to the UK.
TETA provides a Freight Forwarding service using their advanced technology platform, collecting supply chain data and documents, arranging transport, scheduling health inspections, and completing import declarations. This rich set of information is shared with the iDTC creating one view across the consignment end to end journey.

The iDTC makes use of the TWIN (Trade Worldwide Information Network) to host information from Signals and other associated supply chain documents and events. TWIN is based on IOTA's distributed ledger technology which provides a the technical infrastructure to enable information to be shared in a highly secure manner.

Throughout the consignment journey TETA uses sensors to monitor the consignment location and the environment temperature in the container.

Consignment and journey information are sent in the form of 'SIGNALS' to the Cabinet Office Data Hub for onward distribution to other Border Agencies. The iDTC is able to capture any Signal and associated data generated in the supply chain.

The BTD trials are focused on three categories of signals;

DISPATCH – A SIGNAL is sent to the cabinet office on dispatch of the vehicle carrying goods from the warehouse in the EU. This signal includes information on the nature of the goods, transport details and any associated documents such as invoices and packing lists. This may be used to provide advanced notice to the planned UK Port of Entry providing authorities with a rich data set to support advanced risk assessments and intervention planning.

HEALTH TESTS – The poultry supply chain is subject to legally specified testing for Salmonella. The iDTC is able to capture such in-market test results and publish the results via the Cabinet Office. This provides insights into the quality and health status of the associated supply chain.

JOURNEY – Key transport events are collected on the iDTC to further monitor and verify the integrity of the supply chain. These journey signals currently include date, time and place of dispatch, and are being extended to include port of exit, port of entry dates and times. Additional journey events such as environment temperature monitoring may also be captured in similar ways.

Benefits for Government Border Agencies and Port Operators will include:-

Security
"I am able to access Safety & Security Declarations (SSD) to identify consignments of interest. Using iDTC I am able to search additional associated supply chain information to corroborate information on the SSD and deepen my risk evaluation. For example, I can see the original Commercial Invoice to confirm which organisation provided the goods, and I can see all journey details to verify against the declarations."

Health & Safety
"The iDTC is currently building interfaces into Port inventory systems which will enable - "I can use the Port Inventory System (CSP) to see which consignments are scheduled to arrive into my port. Using the CSP system I can 'click through' to the iDTC and access more comprehensive information about the consignments which are of interest to me. This greatly reduces the potential for delays by supporting more accurate intervention decisions"

HMRC
"I can find supply chain documentation such as commercial invoices to review against declarations including confirming origin and preferential tariff claims without delaying the entry clearance"

There are also obvious cost saving benefits to the supply chain

Predictability
"I know where my vehicles are at any one time and able to identify and react quickly to any delays."

Information
"If one of my vehicles is called for inspection I know the driver can show digital copies of the supply chain and declaration documents, ensuring they are not held up due to missing documentation." *[The introduction of the recent Electronic Trade Documents Act paves the way for acceptance of digital documents]*

Supply Chain Visibility
"With access to iDTC I can find out when my order has actually left the warehouse and what its estimated time of arrival will be. If it is delayed at a port or misses a ferry crossing I can be alerted and prepare contingency plans for the delayed stock."

Reduced Spoilage/waste
"I ship fresh food products so any delays at Ports of entry could spoil the whole consignment costing me thousands of pounds. iDTC ensures any required documents are always available for inspection to help minimise any potential delays."

Benefits for Government Border Operations

The pilots delivered a range of technology and business process innovations designed to show how the border operating model can be improved, covering different trade routes, commodities and customs procedures. In terms of change to the border operating model, three critical features emerged:

- Innovative technologies are required to assure Government Departments that transport is secure and can be monitored throughout the goods journey.
- Trusted Trader schemes are essential to simplify border processes and reduce the need for transaction-based controls at the border.
- Accessing and capturing supply chain data through technology channels to allow this data to be shared with Government Departments will enable better compliance with legislation and more risk-based interventions at the border.

Each of these components supports Government objectives on both trade facilitation and compliance/law enforcement. Overall, the Cabinet Office evaluation of the pilots found:

- There are benefits to the Government that come from access to supply chain data, resulting in better targeting and improved decision-making, which in turn reduces the number of checks required at the border. Supply chain data improved the UKBF targeting teams' confidence in their decision-making and showed a potential to decrease the time taken to make those decisions.
- The use of innovative technology improves the border experience.
- There is now a better understanding of interoperability between Government and Industry systems.
- Evidence to support the shift from transaction-based processing to better use of trusted trader schemes, eventually moving away from formatted declarations.
- That Departments do see the benefit of working as "One Government" at the border.
- The new operating models evaluated are not yet ready to replace declarations.
- Government cannot take full advantage of new data because the industry has yet to be incentivised to develop the appropriate technical infrastructure to make it available in the right (machine-readable) format at scale, and Government has not yet adequately determined the most effective ways to use or collect it.

Current processes at the border are in the main transactional and can be cumbersome for traders and Government Departments. At every stage of the cargo movement process, there is a requirement to provide information or to make checks to proceed to the next stage. Often traders (and those providing data on behalf of the trader) are required to submit the same or similar data to different entities within the Government; and be subjected to delays whilst physical checks are conducted (even for compliant traders).

Border processes can be costly, complex and time-consuming for the trader. These factors can lead to an incomplete or disjointed picture of border flow for Government Departments, leading to suboptimal risking and inefficient checks.

The border is an integral part of international trade supply chains and this means it is critical to use technology to exchange data in a secure environment to enable more efficient movement of goods. At the same time, better use of data by Government Departments will make the controls necessary to protect society from harm more effective. Building an operating model that includes improved supply chain management by traders and Government Departments is key to transforming the way in which goods are moved across the UK border.

The border industry's capability to share additional data with HMRC at potentially negligible cost to traders creates potential opportunities. HMRC would benefit from receiving additional data that increases its confidence in the classification, origin, destination and valuation of the goods. This links to HMRC's ambition to improve its risk management capabilities and intercept revenue fraud and/or illicit trade.

The importance of data and not replacing red tape with green tape

Data is the key to future trade development and growth. As a prominent trading Nation it is essential that UK takes a leading role in trade and customs digitalisation to foster safe, secure and resilient international trade growth.

A leading trend in international trade is Supply Chain Visibility (SCV). There is a strong need for increased SCV to provide resilience and predictability of increasingly integrated international supply and value chains. Disruptions to international trade in recent years resulting from trade wars, conflicts, protectionism, pandemics, and black swan incidents have caused ripple effects of delays, additional costs, and enormous challenges for international trade. The goods transport industry is already transforming itself to meet these challenges and to manage continued globalisation, constantly adapting to changing international production patterns and new consumer behaviours.

Disruption to trade flows has been the driver for an acceleration in trade digitalisation. We are the first generation that can turn problems into opportunities through technology and data handling. Initiatives such as the UK Electronic Trade Documents Act and the introduction of key data elements like the eBill of Lading (eBL) are driving this trend.

We are at the beginning of a paradigm shift towards digital trade, Global Trade 2.0. We are already seeing the use of big data, machine learning, and artificial intelligence in the management of international supply and value chains. These are trends that will accelerate in the coming years. As trade data becomes more digital, it is important to re-engineer trade process before attempting to digitise it. A huge opportunity will be missed if the process merely turns a poor procedure in to a digital one. Many trade documents currently in use are obsolete in the digital age and should be eliminated rather than digitised. This will make trade simpler and more efficient for all stakeholders.

The international transport industry is already collecting data directly from sources across all stages of global supply chains. The data is validated, refined, analysed, used and re-used throughout the supply chain, providing consistent and compliant reporting. These commercial trade data pipelines are, in turn, shaping the foundations for Trusted Trade Lanes, Trusted Supply and Value Chains, and intelligent Digital Trade Corridors that involve all stakeholders.

The next step is connecting these commercial data pipelines and to government agencies to maximise the predictability and resilience of safe and secure supply chains.

> *Trade isn't about goods. Trade is about information. Goods sit in the warehouse until information moves them."*
> C. J. Cherryh

In the past, there have been doubts as to whether the private sector is willing to share more non-obligatory data with governments. There are however many examples today of how, with the right incentives and benefits in place, the safe and secure exchange of data is possible and encouraged.

Smart Containers provide 24/7 data on goods container parameters, including access history, temperature, movement, and humidity. These efficient track and trace systems offer real time supervision of goods and digital audibility. When these supervision systems are twinned with commercial supply chain visibility data from all stakeholders, a trust badge – a passport for goods – is created. This information could and should be voluntarily shared with government agencies to enhance the risk management process and access to simplifications before the border, at the border, and after crossing the border.

This also means that digital compliance records are being created by industry. It means there is the opportunity for automatically generated early warning signals to border agencies when something is wrong or 'looks a bit odd', creating a new environment for smart border application at UK borders and improving trade facilitation.

Voluntary access to supply chain visibility data creates a new paradigm for smarter risking at borders. As a result, borders become safer, more predictable, and more resilient. This means both big businesses and SMEs can engage in international trade at a lower cost, more competitively, and with a smaller carbon footprint.

Supply chain data is also needed to comply with new supply chain ESG regulations, including the US Forced Labour Act, the EU Supply Chain Due Diligence Act, the EU Carbon-Border Adjustment mechanism (CBAM), and the EU Deforestation Regulation. Similar regulations are also coming into force in other jurisdictions, including Canada, the United Kingdom, and Australia.

From a trade facilitation perspective, it is crucial that these new ESG regulations are designed and applied in a way that generates maximum ESG impact with minimum impact on international trade and the cost of doing business. If not designed and implemented correctly, these regulations risk becoming costly burdens on UK trade and even blockers for SMEs to export or be sub-contractors in production and international value chains. We do not want to replace red tape with green tape!

We need smarter systems to tackle important ESG challenges and trade can become a decisive factor if trade digitalisation is used as the bridge for business. Business can actively contribute to a better world through inclusive participation in growing international trade. This also means that a new tiered UK Trusted Trader programme should impact ESG reporting in a favourable. way. The UK government should actively seek mutual ESG recognition through technical agreements for authorised traders with documented systems in place with all major trading partners.

We need smart ESG trade solutions. This is possible and we still have time. The proposals in this report makes that possible.

If UK businesses are early adopters of trade facilitation compatible ESG regulations this can become an important differentiator for important markets such as the EU and US.

It is also clear that trade complexity is increasing as more regulations are introduced – this needs to be turned into a reset opportunity. If we do not facilitate smoother trade currently it will remove the option to mitigate some of the increased burden with positive enhancements elsewhere. ESG and other developments also create a catalyst for data standardisation and a requirement beyond making the border easier to negotiate. In short, rather than suggesting the trader does more in order to benefit from facilitations, the developments mean they will need to do more anyway and thus more useable data is more readily available for border functions.
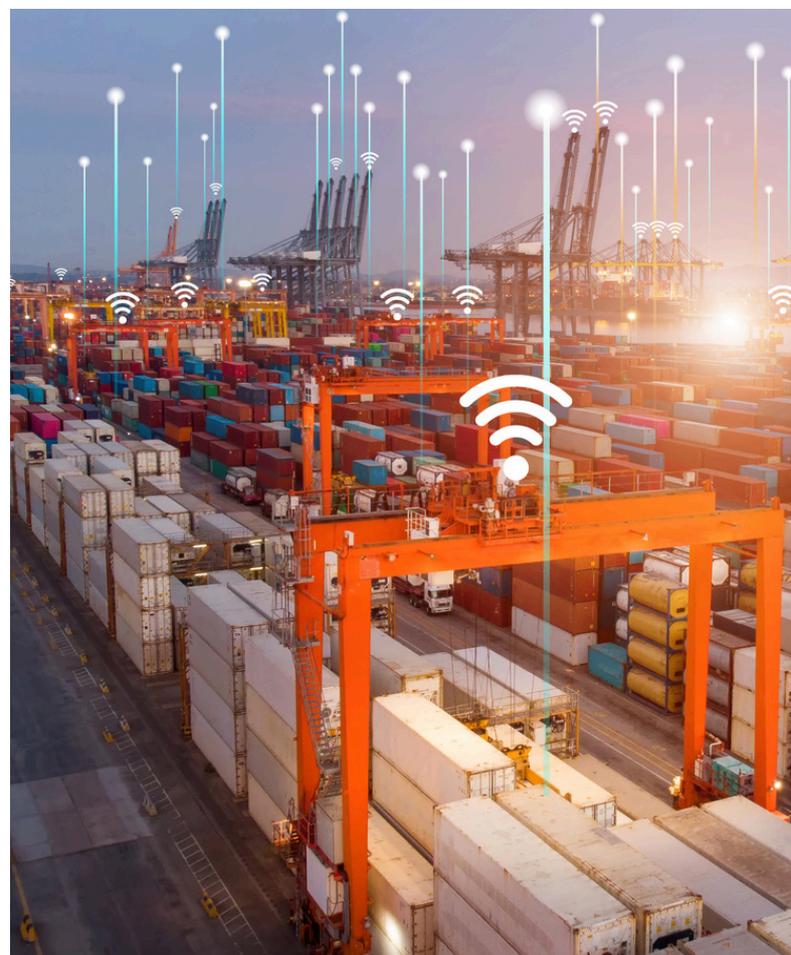
TRADE
FACILITATION
COMMISSION

Policy and Practicality in Partnership

✉ contact@facilitation.trade

🌐 www.facilitation.trade

Shaping the future of customs simplifications and border processes to enhance trade efficiency