UNISOT

Customs Duties and Cost Reductions Report and Financial Analysis

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UNISOT AS

Contents

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1. Introduction

This report details the use of the UNISOT ERP-integrated business network to enable more efficient, faster and secure data interchanges. UNISOT employs fully regulated and legally binding smart contracts to enable a host of features such as automated order procurement and invoicing as well as end-to-end supply chain tracking and faster payments.

The data interchanges that will be identified and analyzed in this report are international customs declarations and logistics bill-of-ladens resulting in labor hours reductions. Financial models in this report were created to demonstrate the low barrier to entry and positive cashflow benefits of participating in the UNISOT network. Cash flow will be the primary factor analyzed however working capital, or accounts receivable and payable, will also be analyzed to highlight the cash flow benefits of faster payment settlements.

Brexit is highlighted as an example of the complexities and issues facing supply chains and customs authorities such as UK Her Majesty's Revenue & Customs (HMRC). The larger a supply chain the more it exponentially benefits from leveraging the UNISOT 'central database' via the blockchain. UNISOT is committed to providing a robust system that scales to demand with tamperproof regulated data interchanges for organizations of all sizes.

2. The Problem Identified

A prime example of the problems and inefficiencies supply chains are facing can be found in the UK leaving the European Single Market and the EU Customs Union. Traders who are used to moving goods freely to the EU will need to adapt. They will have new requirements for paperwork and their goods could face significant checks at the EU border. Supply chains that are optimized for speed and fluidity will need to find the space and time for customs authorities to carry out checks and inspections.

A report by the Institute for Government highlights the international customs issues facing the United Kingdom as Brexit looms (Institute for Government, 2017). The data cited from this summary is from their report. The original "Day 1" date of March 29, 2019 has already passed and the uncertainty of regulations regarding UK trade continues to grow. The current EU summits suggest Britain may remain a member of the EU until as late as October 31st, 2019 (FT, 2019).

The introduction of border checks between the UK and the EU could happen overnight. As the Government has recognized, customs is a cliff-edge issue that could be a disaster for supply chains. Preparing for day one requires government to orchestrate change across over 30 government departments and public bodies, with more than 100 local authority organizations affected.

There are 180,000 traders who will need to make customs declarations for the first time after exit; many of whom will be small and medium-sized enterprises (SMEs). They will need to manage increased administration and incur the cost of doing so. The introduction of customs declarations alone could end up costing traders in the region of £4 billion (bn) a year.

Customs is undoubtedly one of the challenges, if not the biggest challenge, facing the Government in avoiding the cliff edge and implementing Brexit. This paper identifies the scope of the issue and highlights some key recommendations.

Table 1: List of border operations

Functions	Related activity
Revenue collection	• Collection of customs dues, excise dues and other indirect taxes • Payment of dues and fees • Management of bonds and other financial securities
Safety and security	• Security and smuggling controls • Dangerous goods • Vehicle checks • Immigration and visa formalities • Export licences
Environment and health	• Phytosanitary, veterinary and hygiene controls • Health and safety measures • Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) controls • Ships' waste
Consumer protection	• Product testing • Labelling • Conformity checks with marketing standards (for example, fruit and vegetables)
Trade policy	• Administration of quota restrictions • Agriculture refunds • Trade defence • Customs agreements

Source: Grainger (2011)[3]

Modern customs systems must strike a balance between providing security and facilitating the flow of goods. To minimize unnecessary checks and prevent disruption to supply chains, customs has become intelligence led. Risk assessments help customs authorities to target inspections, identifying goods or traders that present most risk while allowing legitimate trade to pass as freely as possible. As a result of this approach, documentary checks are carried out on less than 3% of imports (non-EU only and further specialist checks may take place for highly regulated goods). Decisions on what to check are driven by information such as where the good is from, the volume and type of the good and the trading history of the importer or exporter. A small package from an unknown trader is treated with greater skepticism than a weekly consignment from a company that has been shipping like clockwork for the past 20 years.

The common approach to customs within EU member states extends to their Information and communications technology (ICT systems). For intelligence-led customs, rapid and secure sharing of data is critical and so is a consistent approach to risk assessment and the certification of heavily regulated goods.

There are several key EU-wide systems that support customs authorities across the EU. From tracking goods and sharing information to providing common approaches and mechanisms, operations at the EU's external border are shaped by these systems. The primary standard across these systems is the modern Union Customs Code (UCC). The UCC entered into force on May 1st, 2016 but some transitional arrangements still apply, most notably for customs formalities which are still in the process of being gradually transitioned to electronic systems.

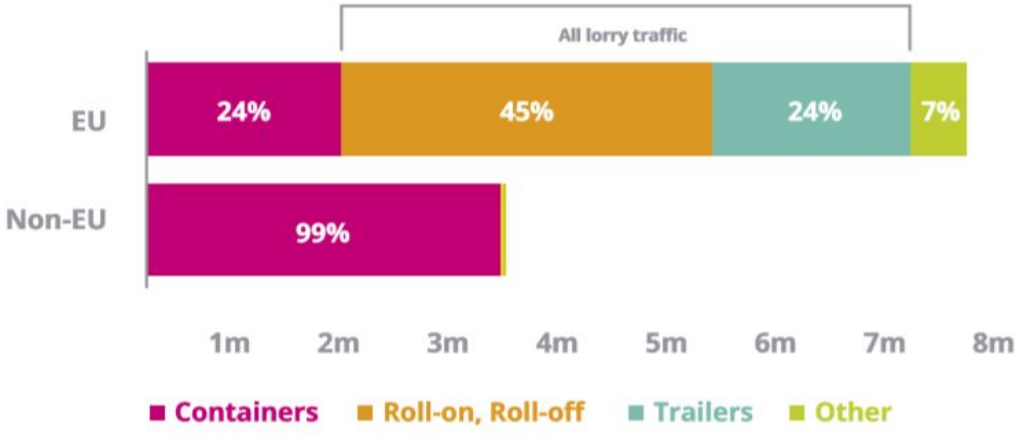
The UK also has its own ICT infrastructure, critical to the running of the border system. The backbone of the UK's ICT is a system called Customs Handling of Import and Export Freight (CHIEF), which is responsible for managing import and export declarations. This system was built by British

Telecommunications in 1989. Its 'retirement' was announced in 2010, with a new, upgraded version to be implemented in 2012. But the project failed to deliver. The design of the new system had not been finalized by early 2012, at which point HMRC confirmed that there would be a delay. Then in June 2013 it was announced that the project would be mothballed in favour of a 'CHIEF 2' replacement programme – Customs Declaration Services (CDS).

CHIEF is in the process of being replaced by a new system, Customs Declaration Services (CDS), which was designed to meet the EU's new customs requirements in the UCC. But even after this change, there will be a complex web of systems beyond CHIEF and CDS, with specialist functions and interfaces right across government and the private sector. Work on CDS began later in 2013, with its design and functionality based largely on the UCC. The UCC supports greater use of technology in areas such as 'self declarations'. A new ICT system is needed, because HMRC's CHIEF system is not capable of meeting the new EU standards.

There are 37 million tons of trade a year passing through Southampton alone, including more than a million containers. Inspecting every import or export post Brexit will be a massive undertaking, creating delays and blockages. The need for customs declarations alone could cost business billions. The Institute for Government researched that a customs declaration is likely to cost a trader in the region of £20 to £45 per declaration. With an additional 200 million declarations expected after Brexit, the cost to businesses could be in the region of £4bn to £9bn. In 2016, £382bn of goods were traded between the UK and the EU as either arrivals or dispatches with minimal or no customs. In contrast, £393bn of UK goods were traded with the rest of the world as imports and exports and were subject to customs checks and controls.

Figure 3: Composition of unitary freight traffic passing through major UK ports, by type of freight unit, 2015



Source: Department for Transport: Maritime and Shipping Statistics

Brexit has thrust these ICT systems into the spotlight. HMRC is still reliant on CHIEF, which can process about 60 million declarations a year, and CDS was halfway through a five-year delivery programme at the time of the vote to leave the EU, based on designs and requirements set before the vote. CDS was designed to manage volumes of up to 150 million declarations. It is likely that on exit from the EU, HMRC will need ICT capable of processing an estimated 200 million more declarations a year. Both systems running side by side may be required to meet capacity requirements for customs declarations alone.

The government Information and Communication Technology (ICT) 'Customs Declaration Services' programme started long before the EU referendum was announced but is critical to customs after Brexit. It is under real pressure and successful delivery is in doubt. The programme has had to contend with

constricting timelines and a huge change in some requirements. Non-delivery would leave the UK facing significant disruption on day one.

3. Explanation of UNISOT Technological Solution

The issues identified above are pressing and are a result of fragmented computer systems. A separate copy of each data interchange is stored on each interacting party's ICT system. Data transfers are slow, expensive and have no guarantees on the data's authenticity. Large supply chains create big data that is often duplicated across many systems as it is shared. A single version of the truth by using a secure 3rd party entity known as the blockchain allows businesses and organizations to share receipts and accounts. The immutable nature of the blockchain ensures data authenticity and credibility. The cost benefit implications and aggregate efficiency created as a result can't be understated.

The development, deployment and subsequent services emerging from blockchain technology alleviate the inefficiencies created by centralized or fragmented computer systems. Standardized forms sent over the blockchain will allow unified integration of business data by BDI (Blockchain Data interchange) across multiple organizations. An example of the use of blockchain technology is in the case of HM Revenue & Customs Notice 828: Rules of Origin (GOV.UK , 2019). The notice details, that goods imported from certain countries must contain proof of origin to ensure that a percentage of materials used do not originate from outside the tariff zones. Tariff rates are applied to goods that are considered non-wholly produced.

In current ICT systems, the fragmented data across supply chains can not be verified to be authentic or untampered. As a result, the proof of origin documentation is at best an accurate estimate, or at worst tampered. The advent of blockchain technology allows immutable tracking and accountability of supply chains to irrefutably and legally prove that the product is within regulations. These regulations include health and safety checks such as ensuring that food products were stored in ideal temperatures during transport.

Inefficiencies have run rampant as supply chains have exponentially grown. UNISOT's purpose is to solve the fragmented systems issue. The root of this issue is due to data duplication and double-entry accounting in which a new receipt or instance of account is created on each system. UNISOT integrates with SAP S4/HANA and other modern enterprise resource management (ERP) systems to enable ERP accounts to become triple-entry systems which share a single data copy in real time with partners.

It is estimated about 80% of global trade passes through an SAP ERP system at present. UNISOT network modules seamlessly integrate to existing ERP systems and use the blockchain as a secure and legally binding data transfer layer between organization's ERP systems. The effect is a single item of data being securely shared across all party's ERP systems involved in the supply chain, simultaneously. The result is dramatic reductions in errors as well as cost and time inefficiencies.

UNISOT is a global permissionless business network with a low barrier to entry. The service may facilitate enterprises as well as SMEs as capital expenditure to join is minimal and benefits are substantial regardless of business size. A network effect is achieved upon admission to the network or in other words the larger the network grows the more valuable it is to be a member. This is due to the features available to transact with other network members. UNISOT facilitates supply chain tracking via tokenized assets, invoicing and order procurement, asset-sharing, faster payment, big data analysis, and process & BDI automation through smart contracts. Short descriptions of each feature can be found at www.unisot.com and UNISOT will be releasing detailed reports as the business network develops.

UNISOT may provide customs authorities, traders and other organizations a stable and secure platform to standardize customs clearances. The immutable and digitally signed nature of blockchain allows customs

to verify the entire history and subsequent credibility of the importer/exporter without having to conduct an extensive audit across all fragmented systems.

It is important to note that UNISOT is aware of the technical scaling requirements to facilitate global business transactions on such a scale and is committed to deploying secure enterprise grade solutions that will handle exponential growth without failure or delay.

4. Explanation of Financial Case Study

In this 6-year financial model a UK trader is importing goods from the EU via lorries and shipping containers. The trader is required to pay duties on declarations in the range of 4-15% on total value of goods, according to research by the Institute for Government (Institute for Government, 2017). ICT systems and contingencies, as well as labor costs are reduced due to efficient data interchange.

The financial figures presented are based on maximum lorry and container load as well as averages of UK import/export volumes by the Department of Transport: Maritime and Shipping Statistics.

Savings are calculated by measuring reduction in full-time-employment (FTE) hours, IT infrastructure expenditure and contingencies. Lower cost in salaries, quicker deliveries and less manual documentation such as bill of laden or UCC customs declarations using UNISOT enables businesses to increase the efficiency of their supply chain.

5. Financial Model of Case Study

Capital expenditures are omitted as set-up costs to join the UNISOT network are minimal.
The financial model described above begins with the trader paying a 4% duty on total goods declared. Additional models of 8% and 15% duties are included. The trader pays a flat UK 19% business tax in all scenarios, and the value of goods are expected to inflate at 1% per year.

INCOME STATEMENT

	EUR	1/2020	12/2020	12/2021	12/2022	12/2023	12/2024	12/2025	Residual
	Months per interval		12	12	12	12	12	12	(12/2025)
	Income specified:								
	Savings on ICT, contingency and labour on lorry declarations		197,160	198,164	199,179	200,203	201,238	202,283	
	Euro volume of goods being declared		3,348,000	3,381,480	3,415,295	3,449,448	3,483,942	3,518,782	
+	Number of lorries		31	31	31	31	31	31	
*	Average number of pallets per lorry		30	30	30	30	30	30	
*	Average value of each pallet, 1% inflation		3,600	3,636	3,672	3,709	3,746	3,784	
+	Savings generated using UNISOT data interchange		197,160	198,164	199,179	200,203	201,238	202,283	
+	Bill of Ladens Processing = 0.0625 FTE per lorry = 3.12 TEUR		96,720	96,720	96,720	96,720	96,720	96,720	
+	Contingency reduction 1% of goods		33,480	33,815	34,153	34,494	34,839	35,188	
+	ICT infrastructure reduction 2% of goods		66,960	67,630	68,306	68,989	69,679	70,376	
	Savings on ICT, contingency and labour on container declarations		53,800	54,088	54,379	54,673	54,969	55,269	
	Euro volume of goods being declared		960,000	969,600	979,296	989,089	998,980	1,008,970	
+	Number of containers		5	5	5	5	5	5	
*	Average number of pallets per container		24	24	24	24	24	24	
*	Average value of each pallet, 1% inflation		8,000	8,080	8,161	8,242	8,325	8,408	
+	Savings generated using UNISOT data interchange		53,800	54,088	54,379	54,673	54,969	55,269	
+	Bill of Ladens Processing = 0.1 FTE per container = 5 TEUR		25,000	25,000	25,000	25,000	25,000	25,000	
+	Contingency reduction 1% of goods		9,600	9,696	9,793	9,891	9,990	10,090	
+	ICT infrastructure reduction 2% of goods		19,200	19,392	19,586	19,782	19,980	20,179	
	Savings on full time employment labour		484,375	484,375	484,375	484,375	484,375	484,375	
+	Field maintenance processes = 0.125 FTE = 6.25 TEUR		6,250	6,250	6,250	6,250	6,250	6,250	
*	Number of lorries		31	31	31	31	31	31	
*	Number of containers		5	5	5	5	5	5	
*	Redundancy reduction and time lapse		50%	50%	50%	50%	50%	50%	
	Income	**0**	**735,335**	**736,627**	**737,933**	**739,251**	**740,583**	**741,928**	**0**
	Other operating income								
	Variable costs	0	-172,320	-174,043	-175,784	-177,541	-179,317	-181,110	0
	Customers declarations duties on lorries, 4% of goods value		-133,920	-135,259	-136,612	-137,978	-139,358	-140,751	
	Customers declarations duties on containers, 4% of goods value		-38,400	-38,784	-39,172	-39,564	-39,959	-40,359	
	Gross margin	**0**	**563,015**	**562,584**	**562,149**	**561,710**	**561,266**	**560,817**	**0**
	Gross margin, %		76.6%	76.4%	76.2%	76.0%	75.8%	75.6%	
	Fixed costs	0	0	0	0	0	0	0	0
	Provisions, increase (-) / decrease (+)								
	EBITDA; Operating income before depreciation	**0**	**563,015**	**562,584**	**562,149**	**561,710**	**561,266**	**560,817**	**0**
	EBITDA, %		76.6%	76.4%	76.2%	76.0%	75.8%	75.6%	
	Depreciation	0	0	0	0	0	0	0	0
	EBIT; Operating income	**0**	**563,015**	**562,584**	**562,149**	**561,710**	**561,266**	**560,817**	**0**
	EBIT, %		76.6%	76.4%	76.2%	76.0%	75.8%	75.6%	
	Financing income and expenses	0	0	0	0	0	0	0	0
	Financing income and expenses								
	Financing income and expenses Financing file								
	EBT; Income after financing items	**0**	**563,015**	**562,584**	**562,149**	**561,710**	**561,266**	**560,817**	**0**
	Extraordinary income and charges	0	0	0	0	0	0	0	0
	Realization profit (-loss)	0	0	0	0	0	0	0	0
	Other extraordinary income (-charges)								
	Income before appropriations and taxes	**0**	**563,015**	**562,584**	**562,149**	**561,710**	**561,266**	**560,817**	**0**
	Change in appropriations								
	Depreciation in excess of (-) / under (+) imputed	0	0	0	0	0	0	0	0
	Appropriations, increase (-) / decrease (+)								
	Income tax	0	-106,973	-106,891	-106,808	-106,725	-106,640	-106,555	0
	Net income for the period	**0**	**456,042**	**455,693**	**455,341**	**454,985**	**454,625**	**454,262**	**0**
	Net income for the period, %		62.0%	61.9%	61.7%	61.5%	61.4%	61.2%	
	Economic Value Added (EVA)		**456,042**	**455,693**	**455,341**	**454,985**	**454,625**	**454,262**	**0**

The first income statement shows a trader declaring several lorries and containers and paying 4% of the value of goods to duties. Reductions in expenses cover the costs of the duties, therefore creating a positive cash flow.

The second calculation is the same model, with an 8% good's value in duties to the customs authorities:

INCOME STATEMENT

	EUR	1/2020	12/2020	12/2021	12/2022	12/2023	12/2024	12/2025	Residual
	Months per interval		12	12	12	12	12	12	(12/2025)
	Income specified:								
	Savings on ICT, contingency and labour on lorry declarations		197,160	198,164	199,179	200,203	201,238	202,283	
	Euro volume of goods being declared		3,348,000	3,381,480	3,415,295	3,449,448	3,483,942	3,518,782	
+	Number of lorries		31	31	31	31	31	31	
*	Average number of pallets per lorry		30	30	30	30	30	30	
*	Average value of each pallet, 1% inflation		3,600	3,636	3,672	3,709	3,746	3,784	
+	Savings generated using UNISOT data interchange		197,160	198,164	199,179	200,203	201,238	202,283	
+	Bill of Ladens Processing = 0.0625 FTE per lorry = 3.12 TEUR		96,720	96,720	96,720	96,720	96,720	96,720	
+	Contingency reduction 1% of goods		33,480	33,815	34,153	34,494	34,839	35,188	
+	ICT infrastructure reduction 2% of goods		66,960	67,630	68,306	68,989	69,679	70,376	
	Savings on ICT, contingency and labour on container declarations		53,800	54,088	54,379	54,673	54,969	55,269	
	Euro volume of goods being declared		960,000	969,600	979,296	989,089	998,980	1,008,970	
+	Number of containers		5	5	5	5	5	5	
*	Average number of pallets per container		24	24	24	24	24	24	
*	Average value of each pallet, 1% inflation		8,000	8,080	8,161	8,242	8,325	8,408	
+	Savings generated using UNISOT data interchange		53,800	54,088	54,379	54,673	54,969	55,269	
+	Bill of Ladens Processing = 0.1 FTE per container = 5 TEUR		25,000	25,000	25,000	25,000	25,000	25,000	
+	Contingency reduction 1% of goods		9,600	9,696	9,793	9,891	9,990	10,090	
+	ICT infrastructure reduction 2% of goods		19,200	19,392	19,586	19,782	19,980	20,179	
	Savings on full time employment labour		484,375	484,375	484,375	484,375	484,375	484,375	
+	Field maintenance processes = 0.125 FTE = 6.25 TEUR		6,250	6,250	6,250	6,250	6,250	6,250	
*	Number of lorries		31	31	31	31	31	31	
*	Number of containers		5	5	5	5	5	5	
*	Redundancy reduction and time lapse		50%	50%	50%	50%	50%	50%	
	Income	**0**	**735,335**	**736,627**	**737,933**	**739,251**	**740,583**	**741,928**	**0**
	Other operating income								
	Variable costs	0	-344,640	-348,086	-351,567	-355,083	-358,634	-362,220	0
	Customers declarations duties on lorries, 8% of goods value		-267,840	-270,518	-273,224	-275,956	-278,715	-281,503	
	Customers declarations duties on containers, 8% of goods value		-76,800	-77,568	-78,344	-79,127	-79,918	-80,718	
	Gross margin	**0**	**390,695**	**388,541**	**386,365**	**384,168**	**381,949**	**379,707**	**0**
	Gross margin, %		53.1%	52.7%	52.4%	52.0%	51.6%	51.2%	
	Fixed costs	0	0	0	0	0	0	0	0
	Provisions, increase (-) / decrease (+)								
	EBITDA; Operating income before depreciation	**0**	**390,695**	**388,541**	**386,365**	**384,168**	**381,949**	**379,707**	**0**
	EBITDA, %		53.1%	52.7%	52.4%	52.0%	51.6%	51.2%	
	Depreciation	0	0	0	0	0	0	0	0
	EBIT; Operating income	**0**	**390,695**	**388,541**	**386,365**	**384,168**	**381,949**	**379,707**	**0**
	EBIT, %		53.1%	52.7%	52.4%	52.0%	51.6%	51.2%	
	Financing income and expenses	0	0	0	0	0	0	0	0
	Financing income and expenses								
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	EBT; Income after financing items	**0**	**390,695**	**388,541**	**386,365**	**384,168**	**381,949**	**379,707**	**0**
	Extraordinary income and charges	0	0	0	0	0	0	0	0
	Realization profit (-loss)	0	0	0	0	0	0	0	0
	Other extraordinary income (-charges)								
	Income before appropriations and taxes	**0**	**390,695**	**388,541**	**386,365**	**384,168**	**381,949**	**379,707**	**0**
	Change in appropriations								
	Depreciation in excess of (-) / under (+) imputed	0	0	0	0	0	0	0	0
	Appropriations, increase (-) / decrease (+)								
	Income tax	0	-74,232	-73,823	-73,409	-72,992	-72,570	-72,144	0
	Net income for the period	**0**	**316,463**	**314,718**	**312,956**	**311,176**	**309,379**	**307,563**	**0**
	Net income for the period, %		43.0%	42.7%	42.4%	42.1%	41.8%	41.5%	
	Economic Value Added (EVA)		**316,463**	**314,718**	**312,956**	**311,176**	**309,379**	**307,563**	**0**

Margins decrease at 8% however the savings are still substantial. The third financial model is with a maximum 15% duty on goods. Margins decrease as expected, however the model still retains a positive cash flow.

INCOME STATEMENT

	EUR	1/2020	12/2020	12/2021	12/2022	12/2023	12/2024	12/2025	Residual
	Months per interval		12	12	12	12	12	12	(12/2025)
	Income specified:								
	Savings on ICT, contingency and labour on lorry declarations		197,160	198,164	199,179	200,203	201,238	202,283	
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+	Savings generated using UNISOT data interchange		197,160	198,164	199,179	200,203	201,238	202,283	
+	Bill of Ladens Processing = 0.0625 FTE per lorry = 3.12 TEUR		96,720	96,720	96,720	96,720	96,720	96,720	
+	Contingency reduction 1% of goods		33,480	33,815	34,153	34,494	34,839	35,188	
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+	Savings generated using UNISOT data interchange		53,800	54,088	54,379	54,673	54,969	55,269	
+	Bill of Ladens Processing = 0.1 FTE per container = 5 TEUR		25,000	25,000	25,000	25,000	25,000	25,000	
+	Contingency reduction 1% of goods		9,600	9,696	9,793	9,891	9,990	10,090	
+	ICT infrastructure reduction 2% of goods		19,200	19,392	19,586	19,782	19,980	20,179	
	Savings on full time employment labour		484,375	484,375	484,375	484,375	484,375	484,375	
+	Field maintenance processes = 0.125 FTE = 6.25 TEUR		6,250	6,250	6,250	6,250	6,250	6,250	
*	Number of lorries		31	31	31	31	31	31	
*	Number of containers		5	5	5	5	5	5	
*	Redundancy reduction and time lapse		50%	50%	50%	50%	50%	50%	
	Income	**0**	**735,335**	**736,627**	**737,933**	**739,251**	**740,583**	**741,928**	**0**
	Other operating income								
	Variable costs	0	-646,200	-652,662	-659,189	-665,781	-672,438	-679,163	0
	Customers declarations duties on lorries, 15% of goods value		-502,200	-507,222	-512,294	-517,417	-522,591	-527,817	
	Customers declarations duties on containers, 15% of goods value		-144,000	-145,440	-146,894	-148,363	-149,847	-151,345	
	Gross margin	**0**	**89,135**	**83,965**	**78,744**	**73,471**	**68,144**	**62,765**	**0**
	Gross margin, %		12.1%	11.4%	10.7%	9.9%	9.2%	8.5%	
	Fixed costs	0	0	0	0	0	0	0	0
	Provisions, increase (-) / decrease (+)								
	EBITDA; Operating income before depreciation	**0**	**89,135**	**83,965**	**78,744**	**73,471**	**68,144**	**62,765**	**0**
	EBITDA, %		12.1%	11.4%	10.7%	9.9%	9.2%	8.5%	
	Depreciation	0	0	0	0	0	0	0	0
	EBIT; Operating income	**0**	**89,135**	**83,965**	**78,744**	**73,471**	**68,144**	**62,765**	**0**
	EBIT, %		12.1%	11.4%	10.7%	9.9%	9.2%	8.5%	
	Financing income and expenses	0	0	0	0	0	0	0	0
	Financing income and expenses								
	Financing income and expenses Financing file								
	EBT; Income after financing items	**0**	**89,135**	**83,965**	**78,744**	**73,471**	**68,144**	**62,765**	**0**
	Extraordinary income and charges	0	0	0	0	0	0	0	0
	Realization profit (-loss)	0	0	0	0	0	0	0	0
	Other extraordinary income (-charges)								
	Income before appropriations and taxes	**0**	**89,135**	**83,965**	**78,744**	**73,471**	**68,144**	**62,765**	**0**
	Change in appropriations								
	Depreciation in excess of (-) / under (+) imputed	0	0	0	0	0	0	0	0
	Appropriations, increase (-) / decrease (+)								
	Income tax	0	-16,936	-15,953	-14,961	-13,959	-12,947	-11,925	0
	Net income for the period	**0**	**72,199**	**68,012**	**63,783**	**59,511**	**55,197**	**50,840**	**0**
	Net income for the period, %		9.8%	9.2%	8.6%	8.1%	7.5%	6.9%	
	Economic Value Added (EVA)		**72,199**	**68,012**	**63,783**	**59,511**	**55,197**	**50,840**	**0**

The following graph compares the scenarios side-by-side and shows total net present value (NPV) of each scenario over the 6-year span.

Figures	EUR	EUR	EUR
Project description	**UNISOT Duties & Savings 4% of goods**	**UNISOT Duties & Savings 8% of goods**	**UNISOT Duties & Savings 15% of goods**
Nominal value of all investments	**0**	**0**	**0**
Required rate of return	**0.00%**	**0.00%**	**0.00%**
Calculation term (years)	**6.0**	**6.0**	**6.0**
Calculation term	1/2020 - 12/2025	1/2020 - 12/2025	1/2020 - 12/2025
Calculation point	1/2020	1/2020	1/2020
Interval length (months)	12	12	12
PV of operative cash flow	2,713,283	1,860,294	367,565
PV of residual value	17,666	11,961	1,977
Present value of business cash flows	2,730,948	1,872,255	369,542
Total Present Value (PV)	**2,730,948**	**1,872,255**	**369,542**
Net Present Value (NPV)	**2,730,948**	**1,872,255**	**369,542**
NPV as a monthly annuity	-	-	-
Economic Value Added (EVA)	455,158	312,043	61,590
	.	.	.

In all scenarios, the savings outweighed the cost of duties. Nominal investments are omitted, as they are variable.

Payment days were also reduced, creating a positive cash flow per interval. This is due to instant or even advanced settlement of invoices and orders via UNISOT blockchain payments allowing supply chains to move payments from end-to-end.
An example of reduction in liabilities and additional working capital due to payment days:

Imputed depreciation	1/2020	12/2020	12/2021	12/2022	12/2023	12/2024	12/2025	Residual
Current liabilities								
Average term of payment, days								
Accounts payable	0	-8,867	-17,721	-17,708	-17,694	-17,680	-17,666	0
Adjusted balance		-8,867	-17,721	-17,708	-17,694	-17,680	-17,666	
Increase (+) / decrease (-)	0	-8,867	-8,854	14	14	14	14	17,666
Other current liabilities	0	0	0	0	0	0	0	
Change in other current liabilities, increase (+)/decr. (-)								0
Current liabilities increase (+)/decrease (-)	0	-8,867	-8,854	14	14	14	14	17,666
Change in working capital	**0**	**-8,867**	**-8,854**	**14**	**14**	**14**	**14**	**17,666**
Net working capital	0	8,867	17,721	17,708	17,694	17,680	17,666	0

The models provided are adjustable, averaged and non-uniform. Many more factors could be accounted for, such as: Account management savings, construction / contracting processing savings, Purchase invoice processing savings or purchase order processing savings. These factors are used in UNISOT and would further increase profitability.

The financial models omit important factors such as time holdup. In June 2015, more than 7,000 lorries were parked on the M20 in Kent, unable to pass through Dover. Businesses lost £21 million (m) worth of stock and the Kent economy lost £1.5m a day (BBC, 2015).

Automated data interchanges through the blockchain would decrease the likelihood of such a holdup.

6. Conclusion

In conclusion, customs agencies are facing unpresented volumes of declarations and ICT systems are unable to handle the process volumes. UK customs is facing a “Day 1” crisis following Brexit due to depreciated ICT systems. A solution is needed as the costs incurred will be billions of pounds merely due to inefficiency of data interchanges.

Traditional ICT systems are fundamentally flawed by relying on duplicating data from one party to another, known as double-entry accounting. Double-entry systems cause an enigma of uncertainty regarding authenticity and a slow rate of data interchange that has caused inefficiencies to exponentially cascade as global supply chains are naturally larger than ever.

Secure triple-entry-accounting enabled systems such as UNISOT present a solution to the fragmented and duplicate data issue by seamlessly integrating with existing ERP systems such as SAP S4/Hana. The integrations allow organizations to share a single-version-of-the-truth or a single document across all collaborating entities ERP systems. The single and authentic document may also be shared with customs authorities to enable seamless and accurate tracking of value of goods and proof of origins.

Financial models show that reductions in ICT, contingency and labor costs regarding lorry and container declarations significantly provide cash flow benefits to organizations, regardless of whether duties are in the low 4%, mid 8% or high 15% range. The benefits to organizations can be capitalized on nearly instantly with minimal capital expenditure on set-up, as UNISOT integrates with existing ICT infrastructure.

A network effect is achieved as additional organizations join the UNISOT business network. UNISOT has capabilities to scale to a global provider of robust enterprise grade blockchain services to enable supply chains globally to collaborate and share data. The total cost savings for an enterprise depend on the scale as larger supply chains contain more inefficiencies, however triple-entry data interchanges are estimated to be orders of magnitude cheaper than present double-entry data interchanges.

More information can be found at www.unisot.com

7. References

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