

## Facilitating port expansion, through process simplification, integration and harmonisation - the Felixstowe approach **UK**

The Port of Felixstowe was facing an operational crisis in 1981. Following rapid growth in the preceding years, throughput had reached over half a million twenty foot equivalent units (TEU). Increased throughput could only be achieved with either more land or increased efficiency. As land was limited, management decided to streamline certain processes and procedures that were causing delays to the movement of goods.

### Introduction

The reason for this approach, rather than just seeking to expand the operational area of the port, was quite simple. Cumbersome documentary processes and procedures associated with the clearance and movement of the cargo were creating bottlenecks. An increase in physical capacity and throughput would only lead to an increase in documentation, all of which would require the same onerous manual processing.

The decision was therefore taken to develop and implement a port community system (PCS) with the whole emphasis being to eliminate, as far as possible, the number of paper documents, (often in multiple copies), that were carried around the port. Shipping lines, agents, forwarders, brokers, customs and other government authorities, transport operators and the ports/terminal operators are reliant on information from each other to perform their functions effectively. Activity in each sector has an impact on the others. It was evidential that if information could be passed between them in an accurate, speedy and paperless manner, the potential was there for the whole operation to improve its efficiency. This would facilitate a faster movement of goods, with an increase in overall throughput. These factors alone would make the physical expansion a more attractive proposition.

In order to ensure the system would be a success, or at least mitigate against possible failure, the various sectors of the Felixstowe port community were engaged in the design process.

A steering committee, project team and various sub-groups were established. HM Revenue & Customs played a key role in this by setting up a dedicated local team whilst also providing technical and policy support from Headquarters. It has often been stated, one of the major reasons for the overwhelming success of the system is that it was 'designed for the users, by the users', a philosophy which has continued for the past 30 plus years.

One of the main causes of delay, identified at an early stage, was the processing of customs declarations. Average clearance times were between four and five days, whilst statistics indicated one in three declarations received by Customs contained errors. At this time, maritime declarations were prepared on paper by freight forwarding agents/customs brokers and presented to Customs, whereupon the details were entered into the central customs declaration processing system by data processors employed by the Department. Validation of the declaration data by the Customs system often resulted in the identification of errors and then a process of notification, amendment, re-submission and re-keying of the data followed. It was this which largely contributed to the lengthy average clearance times

The Customs system was, however, capable of handling declarations in a Direct Trader Input (DTI)<sup>1</sup> environment, and indeed the larger UK airports were already utilising DTI. The Steering Committee therefore decided to implement the PCS in two phases. The first phase would see the introduction of DTI to the port. Phase 2 would achieve the full objectives of the PCS. As this was largely a technical issue, it was decided to undertake this in parallel with Phase 1. An Invitation to Tender was issued in 1981 and the contract

<sup>1</sup> A DTI facility allows importers, exporters or their agents to submit, from their own facilities, an electronic data transfer of declarations to a Customs automated system



awarded. By January 1982 the necessary resources were in place and design of the PCS functionality began. The intention from the beginning was for the eventual users of the system to dictate exactly how the system would function and the responsibility of the contractor was to ensure that their requirements were met. That said, several constraints were placed upon the project team in developing the PCS system. Specifically, the system should:

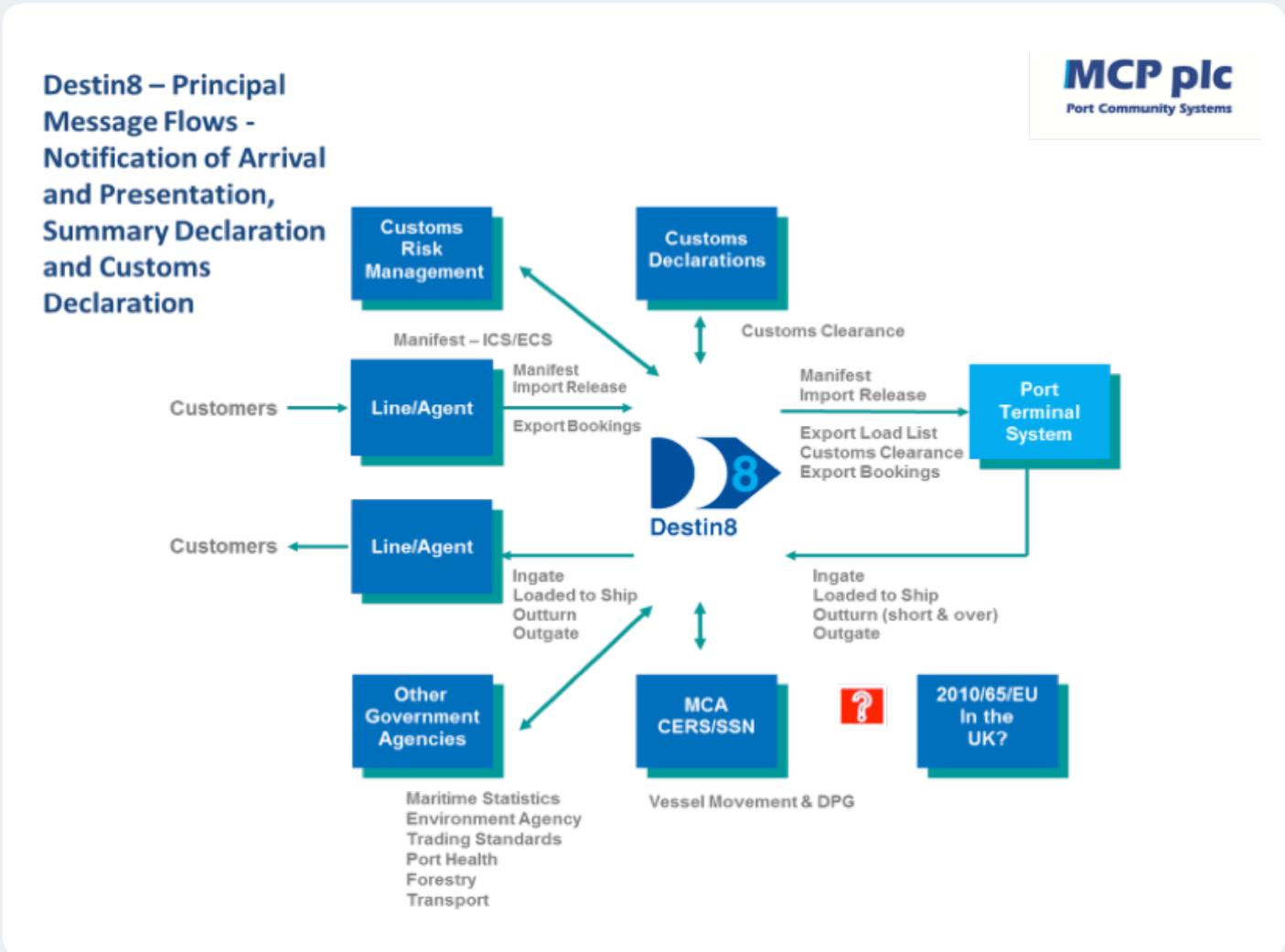
- > Only deal with major operational processes;
- > Never duplicate functions where efficient systems already existed;
- > In the first instance, provide for the electronic exchange of data, including manifest information.

The reason for such basic principles were simple and obvious – the Port of Felixstowe and many of its major customers, the carriers and shipping lines, already had systems of their own in which they had invested heavily and they did not want to jeopardise that investment.

### Phased implementation

**Phase 1** was implemented on 28 January 1984 and essentially provided freight forwarders in the Felixstowe port community, access to the Customs central declaration processing system through a single dedicated gateway, namely, the PCS. Using DTI, the forwarder was effectively fulfilling the role previously undertaken by Customs personnel, freeing them to concentrate on more productive activities. The introduction of DTI alone led to a dramatic improvement in clearance times, from the previous four to five days to around six hours.

**Phase 2** (also known as Inventory Control) development, continued in parallel and implementation took place some 18 months later. The basic concept of Phase 2 was to capture data relating to every import, export and transshipment container/consignment on every vessel, to store such data and to use it to allow the various sectors of the port to carry out their physical operations without having to resort to paper documents. –





Now known as Destin8, the system handles and processes huge volumes of data and information relating to international trade – collecting, storing, exchanging and distributing it among and between almost 750 national and international companies and Government agencies involved in international trade and transport. It provides for the electronic exchange of information between all port sectors, including Shipping Lines/ Agents, Port Authorities, Terminal Operators, HM Revenue & Customs (UK Border Force) and other Government Agencies

(Port Health, Department of Agriculture, Department of Forestry, Department of Plant Health, Department of Transport, Maritime Coastguard Agency, Trading Standards, Environment Agency), Clearing Agents, Logistics Providers, CFS/ICD Operators and road/rail operators. Electronic Data Interchange (EDI) is used extensively between all stakeholders in core functional areas such as Vessel/Voyage processing, Customs Declarations, Imports, Exports, Transhipments, Road/Rail Transportation, CFS/ICD Inland Clearance, Dangerous and Polluting Goods, Maritime Statistics, Waste Reporting and Public domain tracking facilities.

## Conclusion

Implementation of the PCS in Felixstowe have reduced clearance times to zero in the majority of cases. In other words, immediate release is notified to the PCS by the customs declaration processing system on acceptance of the declaration. Only those declarations requiring further documentary or physical checks to be carried out do not receive immediate release.

The original concept, however, “to replace paper documentation with electronic equivalents”, has not changed. It is clear that a reduction in clearance times and reduced paper documents has been achieved but, perhaps more importantly, the system has encouraged data transfer through the single submission of data for multiple use in the Business-to-Business area of port operations.

The concept of single submission is held up as one of the major benefits of International Trade Single Windows. One of the primary aims of the Felixstowe Port Community System is to facilitate the re-use of data from a single submission, in particular to satisfy the requirements of UK legislation, EU Directives and other Governmental regulations

As a result, interoperability between different types of inter-

organisational information systems (IOISs) have already been achieved in several areas such as:

**Maritime Statistics** -the vessel/voyage and manifest data received and stored on Destin8 is used to fulfil the requirement of the EU Maritime Statistics Directive 2009/42/EC in respect of cargo.

**Dangerous & Polluting Goods (DPG)** - for imports, exports and remaining on board (ROB) cargo, the DPG information is stored on Destin8 for use by the port’s safety department in cases of incident or emergency. This data, together with details of the carrying vessel/voyage, is also available for use by the national authority responsible for maritime safety and notifications and where necessary, are sent to the appropriate party, fulfilling the requirements of the Port Waste Directive (Directive 2000/59/EC), Port State Control Directive (Directive 2009/16/EC), Vessel Traffic Monitoring Directive (Directive 2002/59/EC, as amended by Directive 2009/17/EC & Directive 2011/15/EU).

**FAL Forms & Single Window** - Directive 2010/65/EU compels EU Member States to accept and implement the fulfilment of reporting formalities in electronic format and their transmission via a Single Window as soon as possible and, in any case, no later than 1 June 2015. Although most of the Vessel/Voyage data submitted to and contained within Destin8 already includes most of the requirements of the FAL1 form and with the requirements of FAL Form 2 already fulfilled, the system is ideally positioned to facilitate the reporting formalities in Directive 2010/65/EU. The arrival of a voyage on Destin8 fulfils the requirements of EU Directive 2913/92/EEC i.e. the data included in the manifest enables Destin8 to fulfil regulatory requirements on behalf of the ports and carriers, while allowing the carriers to submit data only once.

Most manifests submitted to Destin8 are today used by Customs for all fiscal control purposes, manifests submitted to the system are using the UN/EDIFACT Customs cargo manifest message format CUSCAR and are forwarded to a central Customs anti-smuggling

system, for profiling and risk management purposes. The CUSCAR also accepts additional data elements required for the Import Control System (ICS). The manifest is also made available to other government departments, such as quarantine, veterinary and agriculture, that also use the system. An example of



their use of Destin8 is for X-ray scanning, where the relevant law enforcement agency uses Destin8 to notify scanning requirements and for releasing containers after scanning. No paper manifests are required to be produced to either Customs the port operator, or other government departments using the system. Amendments can be made by the carriers without the need to obtain prior approval, with notification of sensitive.

To summarise, the experience at Felixstowe has shown the significant operational and financial gains to be made by developing fully integrated and efficient port community systems. Such systems undoubtedly reduce the overall amount of clerical work by providing a means of capturing information once. Wasted effort is avoided as duplication of entry and storage of data is reduced

to a minimum. The time required to handle, process and release cargoes results in reduced dwell time purely because the necessary information is instantly available to those who need it.

It cannot be overstated, however, that the fundamental prerequisite to the ultimate success of the Felixstowe port community system is the sense of 'community'. It is essential that all the major stakeholders in the community agree their common interests and accept a common action plan to achieve the required development. One must not lose sight of the fact, the system was, and continues to be enhanced by the users, for the users, and only that way will benefits accrue to all members of the port community, this in turn has a direct effect on the future of the port and its' community.

## References

- For further information on MCP plc or the Destin8 system please contact Alan Long, Chief Executive on +44 1394 600200 or via email to [alanlong@mcplc.com](mailto:alanlong@mcplc.com).
- Maritime Cargo Processing plc – is a founding member of the European Port Community Systems Association (EPCSA).

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