Portsmouth International Port is one of the most important ports on the English Channel and the second busiest UK cross-channel ferry port overall. It is a major freight and distribution hub specialising in fruit importation, temperature controlled storage and packaging; 60% of bananas sold in the UK are imported through this port.

To help improve freight movement and reduce the environmental impact of the fruit and vegetable supply process, Portsmouth International Port has trialled a new system that tracks and traces goods movement through the entire freight journey.

The integrated track and trace system was developed in collaboration with Mainland Market Deliveries Ltd (MMD), a local specialist fruit importer, to increase quality control and improve client service. The system uses barcodes that are applied to the goods from the outset of the journey all the way to the supermarket. The products are scanned at every stage of the process and the data is fed into a web portal.

Before the web portal became available, a series of international telephone calls had to be made or faxes of stock sheets sent. Now live data of stock and dispatched loads can be viewed online from anywhere in the world, dramatically reducing the amount of time, cost and effort to acquire the information.

With the help of the tracking system, suppliers and retailers see real-time information about where their produce is, enabling them to manage stock levels, and plan and streamline their onward logistics more efficiently. This helps reduce the number of journeys and vehicles on the road, keeps the fresh produce in perfect condition and improves client service through higher transparency.

Transnational engagement
Portsmouth Port and MMD led the development of the track and trace tool, and used the expertise of Weastflows partners to suggest how the system could be optimised, such as by using GPS chips for tracking.

This pilot shows the system can be replicated for fresh produce in other ports. This is a major consideration for large global companies who rely on having efficient supply chains.

Results and benefits
The results of the trial show that there has been a reduction in the number of journeys. Heavy goods vehicles (HGVs) spent 15% less time at the port, because they were dispatched when produce was ready for collection. The system also helped to ensure full advantage was made of empty space in trailers, reducing the overall number of lorries on the road. This not only reduced congestion at the port, but also helped reduce air pollution.
Growers, shippers, wholesalers and retailers are all benefitting from this use of technology. The system gives growers the certainty that their fruit has left Portsmouth and is travelling to the ripening centre and it allows the supermarket to trace the fruit back to the farm of origin, which can be important for quality control.

Tracking the fruit at all times helps reduce waste and costs and increase efficient operations, by making sure the shipments can be collected at exactly the right time.

As part of an internal evaluation, the port created an online questionnaire for all companies involved in the trial, which recorded positive feedback from 95% of users on the implemented system. The participants found the tool to be very user-friendly, accessible and a system with little downtime.

The trial has now finished, and a full report will be produced, outlining the results and recommendations, which will be available to download via www.weastflows.eu.

Lessons learned and recommendations
Using an online track and trace system can make a huge difference, resulting in more efficient deliveries, a reduction in carbon emissions and costs incurred in the supply process.

This system has helped MMD to remain a viable business and Portsmouth Port to keep its position as an international freight gateway. MMD is now looking to expand this system to a larger number of users and add more features, such as electronic mapping of fruit location on vessels to speed up the offloading process.

There is the possibility that that other ports and terminal operators will implement a similar system based on the Portsmouth Port pilot. This will help contribute further to efficient and sustainable movement of freight within Europe.

Weastflows (west and east freight flows) – an INTERREG IVB North West Europe (NWE) project funded by the European Regional Development Fund (ERDF) – aimed to improve and enhance freight logistics across a west-east axis in the NWE region. The project brought together experts from all sectors of the freight transport industry to work towards connecting supply chains in the region with the wider freight network across the rest of Europe and Asia. Through a combination of freight mapping, innovative technology and a drive to promote sustainable logistics, Weastflows has worked to generate a step-change in the industry. This helps deliver economic, social and environmental benefits to both communities and businesses across the region.

Lead partners
• CRITT Transport et Logistique (FR)
• Institute for Sustainability (UK)

Partners
• Agence d’Urbanisme de la Région du Havre et de l’Estuaire de la Seine (AURH) (FR)
• Beter Bereikbaar Zuidoost-Brabant (BBZOB) (NL)
• Brabantse Ontwikkelings Maatschappij (BOM) (NL)
• Centre for Quantitative Methods (COM) (NL)
• Communication and Tracking Services (CTS) (FR)
• InforIT (NL)
• Institut du Droit International des Transports (IDIT) (FR)
• Intermodality (UK)
• Irish Exporters Association (IEA) (IE)
• Limerick City and County Council (LCCC) (IE)
• Liverpool John Moores University (LJMU) (UK)
• Logistique Seine-Normandie (LSN) (FR)
• Luxembourg Institute of Science and Technology (LIST) (LU)
• Mobycon (NL)
• Portsmouth International Port (UK)
• South East Scotland Transport Partnership (SESTran) (UK)
• Transports Terrestres Promotion Northern France (i-Trans) (FR)
• Universität Duisburg-Essen (UNI-DUE) (DE)
• University of Science and Technology of Lille (USTL-LAGIS) (FR)
• Verband Region Rhein-Neckar (VRRN) (DE)

“We’ve looked at what other fruit distributors have done and there isn’t anyone using software in this way. This is a major consideration for large global companies who rely on having efficient supply chains. All have been impressed once shown the live information available directly to them. The bespoke technology is helping MMD to reduce cost and remain a viable business.”

Mark Webb, Portsmouth International Port

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Investing in Opportunities

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