

Ecologistics

Developing an ICT tool for supply chain tracking and tracing using the Electronic Product Code



PROJECT

Companies and organisations operating in today's global environment are faced with the growing complexity of their supply chains, made up of multiple tiers of trading partners, which can lead to delays, traceability issues and inefficient planning. To get a better real-time view of their operations and to mitigate risks, increased collaboration with trading partners, third-party logistics providers and customs offices is crucial.

Inspiration

The Electronic Product Code (EPC) is a European standard for tracking and tracing that provides information about physical events occurring to products and other assets travelling through the supply chain through an attached tag that is read electronically. It allows organisations to access and share data about the location of products or assets within the supply chain, making it possible to understand what is actually happening in the physical world as products and other assets are handled during operations in factories, warehouses, retail storerooms and other facilities. However, this standard has never been used between different companies in different countries, only by large companies internally. Despite the benefits that widespread EPC adoption would provide, this is currently unfeasible for SMEs as they lack the time and internal resources to match their current organisation to an international and standardised transport flow.

Innovation

Ecologistics aims to improve the collaborative information flow between large companies and SMEs in North West Europe (NWE) by developing an ICT tool for supply chain synchronisation over the EPC network. Two case studies will demonstrate the maturity of the technology for tracking and tracing as well as the feasibility for companies to work together over a secure and reliable application. The Luxembourg Institute of Science and Technology (LIST) is a project partner and will be responsible for communicating with SMEs to identify their needs and to create awareness of ICT solutions for sustainable and efficient logistics.

Impact

The EPC network tool developed by Ecologistics will enable companies in North West Europe to develop more efficient, collaborative and greener supply chains due to better communication between companies and real-time insight into the current location of their products. This would lead to reduced freight congestion, waiting times and unnecessary trips, and improve traceability. By using a European tracking and tracing standard, the ICT tool will be attractive not only for SMEs and large companies locally, but also across Europe, and will make information exchange more efficient for all companies in the supply chain.

Partners

University of Mons (BE) , Multitel (BE) , EuraLogistic CCI Lens (FR) , GS1 France (FR) , Institut für Produktions- und LogistikSysteme - IPL (DE) , Transports Terrestres Promotion Northern France (FR) , Ecole centrale de Lille (FR) , Eindhoven University of Technology (DE) , Merseytravel (UK) , Logistics in Wallonia (BE) , Forem

Contact

5, avenue des Hauts-Fourneaux
L-4362 Esch-sur-Alzette
phone: +352 275 888 - 1 | LIST.lu

© Copyright April 2025 LIST

LUXEMBOURG
INSTITUTE OF SCIENCE
AND TECHNOLOGY

