A huge volume of goods and products are transported across the world on a daily basis, and managing these flows is a complex logistical challenge. Cargo may be initially transported by ship before then being loaded on to a train or truck, and it is not easy to ensure that the available space is used effectively and efficiently. "Empty space is a big problem in today's transports," says Dr Zavitsas. It is not easy to ensure that the container space is used more efficiently, alongside more efficient transport modes and the available container space more efficiently, and reduces carbon emissions.

Physical internet

The physical internet is a novel approach designed to help transport and logistics companies utilise more efficient transport modes and use the available container space more efficiently, and reduces carbon emissions. We spoke to Dr Konstantinos Zavitsas about the work of the PLANET project in helping transport and logistics companies work in a smarter and greener way.

Transport infrastructure

A further aspect of the project’s research involves using models to answer questions about the future of the physical internet. Gaining better control of transport routes and the infrastructure is more widely. Researchers have found that they can develop dynamic solutions that track the progress of delivery runs during the day, which could help companies avoid wasted journeys and use their resources more efficiently. "We've shown that the solution is that is possible, and it can add value to the supply chain," says Dr Zavitsas. The aim in the project is to try and solve these kind of real-world problems using the physical internet, which Dr Zavitsas hopes will encourage enterprises to adopt this technology. "With last-mile logistics, the question is whether a company is willing to open data to someone else who can help and prevent them from having to make a dedicated trip just to deliver a small number of parcels," he outlines. "That solution will be beneficial in financial terms, as well as in reducing carbon emissions."