

New research reveals how AI can make logistics more sustainable

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The use of AI and data analytics in logistics operations improves environmental sustainability, efficiency and productivity according to new research from ESCP Business School.

According to the research, the introduction of automation, such as robotics, especially in the use of intelligent vehicles for container freight management, can offer a range of economic, environmental and social benefits, including enhanced productivity; labour cost savings; reduced emissions and energy consumption; and increased levels of safety.

According to Professor Spiros Papaefthimiou, Academic Director for the Executive Master in Future Energy at ESCP Business School- a new programme that focuses on energy challenges and opportunities

“Our research proves that AI is useful for the effective and efficient management, promoting sustainable development. However, the adoption of automated operations in several fields requires data analytics capabilities (e.g. data curation, data processing, etc.), for capturing insightful information and improving operations. Because of this we anticipate our work to be beneficial to a wider group of stakeholders such as terminal operators, port authorities, shipping companies and shippers, inland transport providers and many more, particularly considering the global environmental challenges across the emissions-energy nexus.”

The researchers used a simulation environment, on Europe's fastest-growing container port (Piraeus), to quantify the environmental benefits related to routing scenarios via different types of AGVs (Automated guided vehicle).

The research is published in the International Journal of Production Research.

For more information, a copy of the research paper, or to speak with the researchers, contact Kate Mowbray at BlueSky Education on Kate@bluesky-pr.com or call +44 710022871