



A Technology Roadmap for Logistics

Promoting a comprehensive and integrated European strategy to support and incentivise ICT platforms and green technologies for European transport and logistics operations

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The Alliance for European Logistics (AEL) promotes a new policy agenda for European logistics services in Europe. The AEL brings together both the major providers of logistics services in Europe as well as global companies that rely on efficient logistics for the successful execution of their business operations. Its current membership consists of AIR FRANCE KLM Cargo, BASF, CEVA Logistics, Deutsche Post DHL, eBay, Group Carrefour, Hapag-Lloyd, Hutchison Europe, IVECO, Kuehne + Nagel, Michelin, Motorola and SAP.

INTRODUCTION

The AEL Vision

The Alliance for European Logistics (AEL) has a vision that across Europe, the ambitious and harmonised adoption of existing and future transport technologies can lead to a step-change in the business and environmental efficiency of Europe's industrial base.

This step-change would be characterised by integrated and orchestrated supply chain networks providing transparency across different modes, and encouraging information exchange among different players in the supply network. This would be accompanied by innovation and the widespread uptake of the latest and most efficient vehicle and equipment technologies across modes.

The role of European policy-makers

The realisation of the AEL's vision is dependent on the continued support of European policy-makers, who hold the key to completing Europe's Internal Market for freight transport services on each mode, addressing infrastructure bottlenecks, and stimulating innovation and transparency within the supply chain. Furthermore, policy-makers have the power to minimise regulatory and administrative burdens on industry, burdens which often only serve to deprive industry of the ability to invest in new technologies and innovation.

Historically, many European policy initiatives have encouraged progress towards the AEL vision. Over the last decades, the European Commission has brought forward several initiatives that address transportation issues in this context. This includes the Trans-European Network – Transport (TEN-T), the European Satellite System (Galileo), the Single European Sky, the Freight Logistics Action Plan, Intelligent Transport Systems (ITS), eFreight, the Green Corridor concept, InteGRail, TAF/TSI and the Marco Polo programme. In addition, the “Digital Agenda for Europe” sets out key performance targets for the wider deployment and more effective use of cross-sectoral digital technologies that will increase productivity and European competitiveness, provide easier cross-border access to goods and services and help the transition to a low carbon, resource-efficient economy¹.

Only recently, the European Parliament, in its own-initiative report on a sustainable future for transport², called for a research and technology agenda for the transport sector that prioritised projects to decarbonise transport, the transparency of the supply chain, transport safety and security, improved traffic management and reduced administrative burdens.

¹ [European Commission DG Information Society - Digital Agenda for Europe](#)

² [European Parliament report on a sustainable future for transport](#), June 2010

Purpose of this Roadmap

This paper seeks to highlight that the introduction of new and existing technologies should be prioritised. In this regard, the purpose of the paper is to encourage policy-makers to focus their efforts on supporting and incentivising ICT technology platforms and green technologies for European transport and logistics (T&L) operations. The paper also identifies specific future priorities for policy-makers which can further unlock the potential of technology as an enabler of business and environmental efficiency.

As a key conclusion, the AEL calls on the European Commission to develop a comprehensive and integrated strategy for the adoption of new technologies, with a coordinated approach involving relevant actors from the research, environment, transport and internal market perspectives of the policy-making world.

THE POWER OF TECHNOLOGY IN THE LOGISTICS SECTOR

Transparency brings efficiency and sustainability

The competitiveness of European industry, whether in the service or manufacturing sectors, is increasingly dependent on T&L. As a networked industry, T&L relies on a range of different elements interacting smoothly in order to move people and goods efficiently. These factors include infrastructures, vehicles, equipment, and operational and administrative procedures. These multiple factors can be bound together by ICT systems which increasingly constitute the building blocks upon which optimised logistics operations are built.

Due to huge pressure on company costs brought about by the financial and economic crisis, companies are more and more working with logistics operators to realise the potential savings of 10% to 30% that optimised logistics operations can have on supply chains. This is perhaps unsurprising given that, on average, logistics accounts for 10% to 15% of the final cost of finished goods – this includes both transportation and storage.

The adoption of new revolutionary technologies by companies is essential in this process of operational optimisation. At the same time, these reduced costs go hand-in-hand with environmental efficiency gains and significant improvements in the sustainability profile of companies.

The use of technology in logistics operations helps better manage the flow of goods whilst optimising costs and processes. Indeed, introducing technology into the supply chain often has a cascade effect in terms of positive impact with implications that run deep into the management of the supply chain (see case study 1).

CASE STUDY 1 – HOW IT SOLUTIONS LEAD TO EFFICIENCY BENEFITS ACROSS THE SUPPLY CHAIN

In a simplified logistics supply chain one can identify three actors; the supplier of goods, the vendor who sells the goods to the supplier, and the logistics service provider who coordinates the movement of the goods from one to another.

A supplier may introduce a new technological process, for example the introduction of electronic delivery notifications, primarily as a replacement for printed documents. Whilst this may have immediate cost and efficiency benefits, it in turn can allow for greater transparency and efficiency in the supply chain. In this instance, a vendor may subsequently have access to the supplier's inventory levels and future product demands. This would allow the vendor to automatically replenish these as needed.

Crucially, this allows logistics service providers, coordinating the physical movement of the goods, to see further into the future and transport goods more efficiently (e.g. ensuring full truckloads, exploring other more economical transport options such as rail etc.).

Whilst this is a specific example, it demonstrates the positive impact that the adoption of new technologies can have on the supply chain more broadly. Specifically it underlines that one of the major contributors to improved efficiency across supply networks is increased transparency regarding the flow of goods, information, cost and carbon or energy footprint.

The challenge is to ensure that all these systems are working seamlessly together across the supply chain and that the uptake of relevant technologies is incentivised by policy-makers.

In short, these changes create “new” customers for logistics companies with new needs, expectations and behaviours. In particular, technological development or “digitisation” in the supply chain has the ability to transform customer’s expectations and behaviour, increasing the focus on individualisation, transparency, simplicity, availability and reliability of the service. For example, customers are more often demanding transparent information on ecological footprints of products. Eco-friendliness and sustainable transport will determine purchasing behaviour to an increasing degree but price will, in the near term, limit ethically-based purchasing decisions especially in the challenging economic period.

Technology standards for a global supply chain

Logistics managers need to provide global coverage with proven and robust systems and processes. Logistics is far more than just goods transport, warehousing and special process solutions. It provides a vital “backbone” function in supporting macro-economic processes and the operation of markets, critical infrastructures and distribution to both business and consumers.

Existing technologies are already playing important roles in T&L operations across Europe. In fact, the benefits of specific technologies, such as radio-frequency identification (RFID) and global positioning systems (GPS) are already being employed by leading logistics companies. The effective usage of such existing information technologies can already yield major efficiency and ecological benefits in the supply chain (see case studies 2&3).

CASE STUDY 2 – USING TECHNOLOGY TO MAKE CONTAINER TERMINALS MORE EFFICIENT

Within container terminals, efforts have been made in recent years to reduce the carbon emissions of operations. Increasingly, terminal operators are using electric rather than diesel-powered cranes and carriers.

The most modern cranes generate power as they lower a container, such that a crane that is lifting is powered by one that is lowering. There is much effort to improve the efficiency of container movements within terminals. Terminal operators develop Terminal Operating Systems (TOSs) to control container movements in the most efficient way. As well as reducing costs, these systems also help to reduce carbon emissions.

The development of Electronic Data Interchange with trucking companies and shipping agents means that trucks coming to a terminal are handled more quickly and efficiently. For example, Optical Character Recognition of number plates matches the truck to pre-registered data and automatically directs the driver to the assigned storage block, thus reducing turnaround time.

At certain ports, systems have been deployed that allow trucking companies to combine deliveries to the terminal with pick-ups from the terminal. This system reduces the number of journeys where the truck has no container, thus improving the cost and environmental efficiency of truck journeys into and out of the terminal. The system is also able to reduce waiting times at the terminal gate, which again improves cost and environmental efficiency.

CASE STUDY 3 – INNOVATIONS IN EQUIPMENT TECHNOLOGIES TO LOWER CO2 EMISSIONS

Given that fuel efficiency is one of the most important competitive factors in the commercial vehicle industry, market forces are reinforcing the need for continuous progress in fuel economy and CO2 emissions reduction through the uptake of the most eco-friendly transport systems and vehicles. The AEL supports current initiatives already outlined by the European Commission, such as the further development of the diesel engine, the development of alternative tractions systems and the introduction of renewable and sustainably produced alternative fuels.

Due to its very high fuel efficiency, the diesel engine has been the fundamental cornerstone of the power train and will remain so for many years to come. The Euro VI exhaust emission legislation, to be introduced in 2013, will reduce pollutant levels in the exhaust system to truly negligible levels.

Electric vehicles present something of an ideal transport solution: while their cost, weight and limited operational range still hampers their wider diffusion, such technology is ideal for operations in towns and cities. Diesel Electric Hybrid Vehicles, which feature traction batteries that can be charged whilst on the move, bypass the need for the specialised infrastructure needed for other electric vehicles. This technology is ideal for city buses that follow specific routes where fuel efficiency improvements in excess of 30% can be achieved compared to conventional diesel engine vehicles.

Reducing dependence on traditional fuel sources is a European priority. In addition, alternative fuels bring additional environmental benefits, as is the case for natural gas. As a road vehicle fuel, natural gas gives off low exhaust emissions (already at Euro VI levels) and, when using a spark ignition engine, results in much reduced engine noise compared to most diesel vehicles. Bio-methane, produced from domestic and agricultural waste, is perhaps the most promising in terms of greenhouse gas savings.

Operational and technical improvements in aviation have led to 15% fuel savings over the last 10 years alone (e.g. a B777-300ER aircraft is 25% more fuel efficient than the aircraft it replaces, B747-400). However, real progress in reducing CO₂ emissions can only be achieved with new technologies, new aircraft designs and alternative fuels. Pilots on biofuels are currently taking place, but they need financial and regulatory support, e.g. mandatory biofuel blending requirements and/or emission targets on manufacturers. Furthermore, earmarking of emissions trading scheme revenues for projects truly reducing aviation's carbon footprint would be extremely helpful.

Critical factors

Developments and trends across European industry are creating an increased rationale for more extensive use of existing technologies as well as innovative development of new platforms. Moreover, the limitations and obstacles to their deployment are being put into sharper focus.

The factors driving this need for a fundamental strategy to stimulate the uptake of new technologies in T&L include:

- **Continued urbanisation:** The increasing urbanisation in Europe's cities continues to drive the demand for innovative city logistics solutions. These include technological platforms that assist in the efficient routing of vehicles, which relieve congestion and improve the flow of goods. In this regard it is important to underline that the cost of traffic congestion is estimated as 2% of European GDP³. This, for instance, is growing the demand for electric commercial vehicles, a potentially ideal transport solution for T&L in towns and cities. However, the lack of an available infrastructure of fast recharging facilities to enable such vehicles to complete an 8 hour work shift creates a clear obstacle for the widespread uptake of electric vehicles.
- **Increased customer demand:** E-commerce marks an important transition in the 21st Century marketplace with seismic implications for T&L. It facilitates consumption on a 24/7 basis, from the convenience and comfort of the home or anywhere else of the consumer's choosing. Given the resulting volume of goods shipped all over the world and consumers' expectation to receive products quickly after the conclusion of a purchase, the e-commerce industry needs logistics companies to deliver fast and trustworthy shipping to consumers. Similarly, e-commerce is an

³ [International Monetary Fund, World Economic Outlook Database](#), October 2009 edition

enormous opportunity for the logistics industry across the EU. This is why both sectors need to work closely together to build synergies in order to foster e-commerce. In terms of public policy issues, the growth has highlighted existing bottlenecks and barriers that prevent further development of new technologies.

- **Continued fragmentation across transport modes:** EU transport policy has developed unevenly across different transport modes. At the same time, quick fixes to transport infrastructures have been regional at best across European Member States. Of inland freight 72% is carried by road, 17% by rail, 5.5% by inland waterway and 5.5% by pipelines. Such realities make it difficult to identify harmonious technological solutions to Europe's transport and logistics challenges.
- **Limited energy resources:** Reduction in global demand due to the economic slowdown has led to a record fall in crude oil prices. However, high oil prices and oil scarcity will remain a challenge in the medium term. It will mean that new resilient operating models will need to be developed (for example, by improving utilisation of transport networks and modes and improving fuel-efficiency). At the same time this is driving the need for research into new and alternative energy efficiency solutions that can secure the transport of tomorrow.
- **Environmental prioritisation:** Sustainability and efforts to combat the carbon footprint of industry continues to be a central pillar of supply chain operations. It is driving the urgent need to redefine low-value supply chains and the modal mix in order to optimise efficiency and capacity. Sustainability priorities will more and more determine purchasing behaviour, putting added responsibility on users and suppliers alike to boost the efficiency of supply chains, providing clear assessment of carbon footprint and other metrics along the supply chain.
- **Europe's competitive and innovative edge:** As outlined in the May 2010 EU Strategy for the EU Single Market⁴, EU industry is currently one of the most competitive in the global market for eco-friendly and low-carbon products, services and technologies. These are currently estimated at €1 trillion annually with a projection to reach €3 trillion by 2020. Europe's market shares in the sector range from 30% to 50%, generate a turnover of €300 billion and provide nearly 3.5 million jobs. Europe is facing increased pressure to innovate and invest in new technologies to maintain its competitive advantage as global competition from other areas, such as China, increases.

These trends and pressures have driven strong growth in the T&L industry, to the extent that the logistics industry itself was the biggest industry sector in the EU in 2008 in terms of revenue; generating €950 billion⁵. A 10% to 30% improvement in efficiency in the EU logistics sector would equal saved costs of some €100 to €300 billion for European industry.

However, these trends must be taken into account in shaping an ambitious and adequate technology roadmap for the logistics sector securing more efficient and sustainable supply chain operations.

⁴ [A New Strategy for the Internal Market](#), May 2010

⁵ The Top 100 of Logistics 2008/2009, by Klaus and Kille, ed. DVV Media Group

A EUROPEAN TECHNOLOGY STRATEGY FOR LOGISTICS

Logistics providers are in a position to use technology to not only reduce their own carbon footprint, but also that of their customers. This can be achieved by optimising supply chains and the energy balance of all logistics activities as well as restructuring corporate processes with the aid of the numerous digital technologies now available.

However, this can only be achieved through the support of European policy-makers. In light of some of the trends and challenges outlined above, the AEL calls on the European Commission to unlock the potential of technology to act as the driving force behind optimising transport in Europe.

Specifically, the AEL calls on the European Commission to develop a European Technology Strategy for Logistics that helps coordinate the flow of materials and goods with the flow of information while optimising costs and business processes.

To this end, we recommend five pillars for such a technology strategy. These pillars are closely related, build upon each other and have partially overlapping focus:

1. **Collaborative Logistics:** To enable all partners in the logistics ecosystem to work together and collaborate, optimise reliable relationships and therefore maximise value and benefit.
2. **Adaptive Logistics:** To ensure operational excellence within the highly agile and short-notice planning and execution business in logistics.
3. **Green & Sustainable Logistics:** To optimise the efficiency and ensure sustainability of logistics processes along the complete logistics value chain in the context of ‘resource utilisation’ – which is certainly also a major cost driver.
4. **Intelligent Logistics:** To enable people to do fast and right decisions in real-time, in all levels inside the company and cross-company, and support human skills and knowledge by intelligent IT tools.
5. **Transparent Logistics:** To provide full awareness regarding the situation in the physical processes of logistics, so that the right information is available which has impact on business processes – in the right quality, density, reliable and with sufficient content.

Such a strategy should conduct a comprehensive analysis of the legal, regulatory, economic and technical barriers for the uptake and effective usage of existing ICT applications and new technology applications in T&L and propose concrete measures to address them. In particular the Commission should identify the need for the harmonisation of legislation and technical standards to promote the uptake of new technologies.

At the same time, the technology strategy should also examine how technological solutions can be incentivised to boost fuel economy and efficiency, thus having a positive knock-on effect across the supply chain.

SPECIFIC RECOMMENDATIONS

From the perspective of the AEL and in the context of the upcoming White Paper on the Future of Transport Policy, a European Technology Strategy for Logistics should focus on specific policy mechanisms that:

1. **Stimulate the uptake of ICT platforms in logistics operations to ensure seamless T&L along the whole supply chain and ensure competitiveness.**

PRIORITY ACTION: Significantly increase the budget dedicated to the piloting of transport-related ICT projects within the current and future EU Research Framework Programmes.

BACKGROUND: Increased adoption of ICT solutions in logistics operations can truly create sustainable freight flows that reduce logistics costs and improve the carbon footprint for all EU companies. However, the biggest obstacle to the adoption of available IT solutions is cost. This means that the adoption of innovative ICT in T&L is often limited to individual companies. Therefore, European policymakers should increase and coordinate funding of pilot projects to leverage the available technology and to deploy innovative technology solutions (including standardisation initiatives) across the supply chain. In the long term, information technology applications will enable the vision of the “Internet of Things” to become a reality. From a logistics perspective this can lead to the concept of the “intelligent package”. This means the package would be given the “knowledge” of where it is going by storing this target information in a transponder attached to it. This will enable the package to navigate its own way through a logistics network. With control commands integrated into the transponder, the freight will also control the systems to reach its destination.

2. **Encourage incentives at both EU and national level for new transport technologies that reduce energy use but cost more than traditional alternatives**

PRIORITY ACTION: Maximise existing EU mechanisms, such as the European Green Cars Initiative and the Clean Sky Joint Technology Initiative, and design new tailored funding programmes to incentivise the acquisition of energy saving transport technologies.

BACKGROUND: Adopting new transport technologies requires an integrated approach to stimulate eco-friendly vehicle diffusion, by means of fiscal, financial, infrastructure and technical measures harmonised at European level. Incentives have the potential to incite investment in eco-efficient vehicles, electric and hybrid trucks and vans and aerodynamics features for all transport mode and ITS devices. Incentives can be both financial (such as subsidies and credits with low interest rate) and in-kind (such as priority access to city centres for low carbon vehicles).

3. **Support the development of interoperable intelligent transport systems (ITS) to secure co-modal traffic management**

PRIORITY ACTION: Following the adoption of the ITS framework directive, prioritise EU-wide standards and interoperability related to future ITS applications that can genuinely link the vehicle with transport infrastructure.

BACKGROUND: Intelligent transport systems linked to infrastructure will improve traffic management and reduce congestion, contributing to a reduction in the number of kilometres operated, fuel used and CO2 emitted. For example, fleet management by means of telematics allows better utilisation of the existing physical infrastructure capacity, thus reducing fuel consumption and CO2 emissions. While intelligent transport systems should be developed for each particular mode of transport, it is of the utmost importance that they are interoperable with each other in order to secure co-modal traffic management.

4. Support the development of technologies for efficient carbon reporting (monitoring and calculation of energy consumption, greenhouse gas emissions and carbon footprint at different levels)

PRIORITY ACTION: In the context of the recommendations of former EU Commissioner Mario Monti, develop a standard, EU-recognised methodology for calculating the carbon footprint of transport and logistics operations to avoid a proliferation of national approaches.

BACKGROUND: A clear and uniform process to accurately measure the carbon footprint of T&L operations is currently lacking. A standardised information technology platform that tracks resource consumption (such as energy use, production processes, packaging material and transportation equipment) as well as exhaust emissions and waste across the supply chain would lend greater transparency to the effort to drive sustainability within industry. Furthermore, it would make efficiency gains more quickly achievable. With proper analysis of the information, informed business decisions can be taken to drive operational excellence throughout the value chain. Such activities will also extend the 'Internet of Things' to sustainability aspects.

5. Support the development of a robust EU harmonised ICT platform and/or standards to enable electronic processes of all administrative, customs and security procedures

PRIORITY ACTION: Using the e-Freight project and the mid-term review of the Logistics Action Plan, set out legislative policy measures that ensure the introduction of the 'single window' concept for cross-border transport operations and the creation of a single European transport document in electronic format.

BACKGROUND: Red tape is slowing down and rendering supply chain operations more complex and costly. Single-window and electronic processes should become a reality for all administrative, customs and security clearance. Information technology applications can play a major role in minimising those administrative obstacles faced when operating a logistics business. In this respect, it is, therefore, highly desirable that the European Commission and the Member States examine together with the industry a robust EU harmonised ICT platform and/or standards to facilitate trade procedures.

6. Support the development of alternative fuels, in particular biofuels that comply with sustainability criteria, alternative fuels like natural gas and the electrification of vehicles

PRIORITY ACTION: In the context of European Strategy on Clean and Energy Efficient Vehicles, set targets and coordinate multi-stakeholder cooperation to renew the European vehicle fleet and to overcome market entry barriers for alternative vehicles and fuels.

BACKGROUND: Not only will alternative fuels serve to reduce dependence on traditional supply sources, their use may bring additional environmental benefits, as is the case for natural gas. In terms of road transport second generation biofuels will be suitable for the entire diesel vehicle fleet and can be produced from waste biomass (and so removing any possible use of crops otherwise intended for human or animal foodstuffs). Aviation biofuels are approaching certification but support will be needed from governments to stimulate the commercialisation and uptake of biofuels, which could reduce aviation emissions by 80%. A regulatory framework providing support and technical standards can help make these fuels available at affordable prices.

7. Support the harmonisation and standardisation of EU tariffs and roaming charges on mobile data networks

PRIORITY ACTION: Reduce the roaming charges for data on all mobile network subscribers, both professional and private across the 27 EU Member States by introducing transparency via a legal instrument, following the EU's Roaming Regulation, to cap the previously excessive roaming surcharges on voice claimed by mobile network licensees/operators for users within the 27 EU Member States.

BACKGROUND: A standardised mobile network subscriber profile relating to the T&L sectors' professional usage of 3G and emerging 4G data services must be exempted from these still non-transparent and non-reciprocal surcharges on data. This will ultimately further reduce the barriers to the free movement for T&L services across EU borders. Mobile and wireless technologies play a key role as a tool for efficiency and security in the T&L sector. Within individual Member States, this has been understood and exploited since the late 80's, where the first all digital fleet management systems were deployed. For example, the automated taxi dispatch systems were adopted by larger taxi fleets in Copenhagen, Paris, London, Oslo, Stockholm and many other EU Member State capitals. These systems reduced the taxi fleets "idle driving mileages" by 25%, reducing fuel consumption, wear and tear of the vehicles and reduced the customer pick up times drastically. Credit card payment over the radio was introduced by the system and consequently the rate of "taxi robberies" almost reduced to zero. Due to the absence of harmonised radio frequencies for such systems, the fleets were only nationally implemented and thereby severely constrained in expanding their businesses and competitiveness. Today such fleets have national agreements with mobile network operators to connect their fleet with their dispatch centres, but cross border roaming is hindered by the above mentioned charges. This scenario is valid for all sub-segments of the T&L sector. Additionally, the international deployment across Europe of Smart Truck programmes, using GPS as well as the permanent connection to the back-end dispatch system via the different national mobile data networks, will benefit greatly from this potential harmonisation.

8. Support the removal of bottlenecks within the existing EU regulatory framework that hamper the growth of cross-border trade and e-commerce

PRIORITY ACTION: Push forward the adoption and standardisation of parcel track and trace technologies in Europe in order to boost both T&L operational efficiency and consumer confidence in cross border e-commerce through improved transparency.

BACKGROUND: Outdated rules, associated with 20th Century market dynamics, hinder the full potential of the Internal Market by allowing the EU to be segmented into 27 different markets. Cross-border e-commerce has been recently identified by two important European Parliamentary reports⁶ as a key driver for the re-launch of the Internal Market. The AEL encourages the Commission to build on the existing EU work so that cross-border e-commerce benefits the whole supply chain, from SMEs to consumers, from e-tailers and online marketplaces to online payments and logistics companies. In its 2010 Consumer Markets Scoreboard, the European Commission set out a 10-point list of priority actions to dismantle barriers in the internal market for consumers⁷. For example, ending fragmentation of consumer laws and discrimination based on nationality or place of residence (enforcement of the Service Directive) will expand consumers' choice and access to products across the EU. Consumer confidence must also be strengthened by efficient cross-border payment and shipping systems. The AEL strongly supports this strategy and calls on the European Commission to deliver on its commitment to remove artificial barriers to cross-border trade and ensure a smooth flow of goods within the EU.

⁶ [European Parliament report on delivering a single market to consumers and citizens](#), May 2010 and [European Parliament report on completing the internal market for e-commerce](#), September 2010

⁷ [European Commission DG Health and Consumers - 3rd edition of the Consumer Market Scoreboard: "Consumers at Home in the Internal Market"](#), March 2010

BACKGROUND INFORMATION

The Alliance for European Logistics (AEL) is committed to raising the profile and understanding of logistics amongst European policymakers.

Logistics is all around us and yet is often easily forgotten or incorrectly grouped together with other sectors of industry. It is crucial for political, regulatory and legislative stakeholders to see logistics not only in the limited sense of goods transport and warehousing, but also in the wider context of the complex macro-economic role it plays in helping deliver a competitive European industrial base.

The logistics sector itself was the biggest industry sector in the EU in 2008 in terms of revenue; generating €950 billion. It is also an important partner and service provider for all economic actors within both the European and global sphere.

The AEL therefore seeks to address the serious discrepancy between the importance of logistics for the economic well-being of the EU and the lack of a truly integrated policy vision for the sector.

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