

## The location of logistics activities in Northwest Europe: an empirical analysis

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# The location of logistics activities in Northwest Europe: an empirical analysis

**MATHIEU STRALE**

## **Abstract**

*Logistics activities have developed rapidly in Europe, because of the evolution of economic structures and of the integration of the European territory. Based on this statement, this article examines the geography of logistics across the Northwest Europe and their territorial impacts. The analysis is based on an empirical approach. The geographic analysis is based on the study of a sample of logistics facilities within Northwest Europe. The spatial development issue is treated by decryption of European policies. The results illustrate the importance of pre-existing socio-economic structures for understanding the geography of the logistics activities. Furthermore, they demonstrate the impact of the changes in the territorial development policy at all decisional level in Europe on how the logistics development issue is handled.*

Logistics, Northwest Europe, Geography, spatial development, regional policy

## **Zusammenfassung**

### **Standorte für Logistikaktivitäten in Nordwesteuropa: eine empirische Analyse**

*In Europa haben sich infolge der Heranbildung wirtschaftlicher Strukturen und aufgrund des Zusammenwachsens des europäischen Raumes schnell logistische Aktivitäten entwickelt. Ausgehend von dieser Aussage untersucht der Artikel geografische Logistik-Aspekte im Nordwesten Europas und deren territoriale Auswirkungen. Die Arbeit basiert auf einem empirischen Ansatz. Grundlage der geografischen Analyse ist die Untersuchung einiger beispielhafter Logistikstandorte in Nordwesteuropa. Der Aspekt der Raumentwicklung wird im Rahmen einer Aufschlüsselung europäischer Richtlinien behandelt. Die Ergebnisse illustrieren die Wichtigkeit bereits vorhandener sozioökonomischer Strukturen, die notwendig sind, um die geografischen Aspekte von Logistikaktivitäten verstehen zu können. Außerdem veranschaulichen sie die Auswirkungen von Änderungen in der Raumentwicklungspolitik auf allen europäischen Entscheidungsebenen im Hinblick auf die Frage, wie die Logistikkentwicklung behandelt wird.*

Logistik, Nordwesteuropa, Geografie, Raumentwicklung, Regionalpolitik

## Introduction

Logistics activities (i.e. the activities that organize and manage the exchanges of goods between economic actors) grow rapidly in a context of economic flexibilisation and internationalisation (DICKEN 2015; HESSE & RODRIGUE 2004). These evolutions led to the geographic and economic empowerment of logistics activities. Thus, logistics spaces appear: distribution centres, logistics platforms and even logistics regions (HESSE 2008; CRIDELL 2010). At the same time, freight nodes, such as ports, airports or intermodal terminals, grow in importance. In this context, public bodies regulate their territorial impact and promote their development to generate business and employment. The scientific literature on this subject remains scarce, especially in terms of spatial analyses. In addition, the development of an autonomous logistics sector is new, so statistics on this subject are rare.

In this context, the objectives of this paper are to identify and understand the geography of logistics activities and analyse their territorial impacts. The analysis is organised into two steps: the study of the location factors of logistics activities within Northwest Europe, and the analysis of the policies adopted by European public bodies in logistics and freight transport. Their interaction is explored and general trends highlighted.

The paper is structured as follows. First we explain our methodology for studying the geography of logistics facilities in Northwest Europe. Indeed, this is the most original contribution of the analysis. We then focus on the contribution that our analysis makes to the understanding of European territorial development and to the impact of logistics activities and related public policies.

## Context and research question

Logistics activity raises both economic and public policy issues. Indeed, logistics has a key role in the economy because it is a driver of and a necessary condition for the expansion of goods exchanges (HESSE & RODRIGUE 2006). The produc-

tion of goods in short series and of tailored items, the acceleration of production cycles and the inventory reduction cannot be achieved without logistic support (DICKEN 2015). Therefore, the logistic function becomes a sector with its own spatial and economic existence (DÖRRENBÄCHER 2003). Logistics is comprised of players supporting tasks of increasing complexity.

These developments necessarily have geographical effects: static (e.g., warehouses, industrial sites, industrial estate) (HESSE 2008; MCKINNON 2009) and mobile (e.g., freight transport and related infrastructures) (RODRIGUE et al. 2013). However, there is limited scientific literature on the geography of this activity (RODRIGUE 2006). In addition, freight transport issues have attracted the interest of researchers. This is the result of the lack of data, the novelty of the sector and the fact that the most visible spatial elements are related to transport (e.g., container ships, transport hubs, trucks).

At the same time, public bodies seek to promote and develop logistics activities in order to create new activities and jobs (SHEFFI 2010; HESSE 2008; MÉRENNE-SCHOUMAKER 2007). Indeed, this sector is seen as a potential growth driver in the so-called era of globalization. So, according to entrepreneurial public policy, European, national and regional authorities all promote logistics activities (GUNDER 2010; BAUDELLE et al. 2011).

This raises two research questions:

- What is the geography of logistics operations – particularly its static elements – and what factors influence these locations?
- What are the impacts of logistics activities in terms of territorial development? What are the consequences of the current action of European public bodies?

## Methodology

Regarding our research questions, the main methodological issue was the collection of data about logistics locations in Northwest Europe. Indeed, traditional sources of data are inadequate. Public statistics at the European level do not

meet the requirements for this study: outsourced logistics is a new sector, so it does not even exist in the statistical aggregates. In addition, onsite/inner logistics is integrated in the activity of enterprises. One potential solution is to use national population surveys, by analysing their employment structure (SAVY et al. 2004). However, this raises the problem of the non-unified methods that are used in the European country, which preclude international comparisons.

We have therefore chosen to use alternative methods: by surveying specialised press<sup>1</sup> and professional directories<sup>2</sup>, we collected the names of logistics companies (STRALE 2013). We created a list of approximately 400 companies. In a second step, we surveyed all the websites of these enterprises and the Amadeus database for collecting data on their locations in Northwest Europe, their turnover and their range of activity. Finally we constructed a database of 5000 logistics locations, registered at least at the municipality level (see Fig. 1).

Northwest Europe is defined here as comprising Belgium, The Netherlands, Luxembourg, England, Wales, northeastern France and northwestern Germany. We hope to cover all of the North Sea's main seaports and close hinterlands as well as the dense and industrialised space between northern England and southwestern Germany.

Using a similar method, based on the specialised press, we collected data on logistics real estate:

- We established a list of the largest logistics real estate providers and built a database of their main achievements in Northwest Europe.
- We collected the location, the occupier and the size of distribution centres that were mentioned in the specialised press.

<sup>1</sup> For each analysed country, at least one specialised publication has been surveyed. These journals are *De Lloyd* (Belgium), *Logistik Heute* (Germany), *Logistiek.nl* (Netherlands), *Warehouse & Logistics News* (UK), *Supply Chain Magazine* (France), *Logistics Manager* (UK), *Warehouse and Logistics* (Belgium).

<sup>2</sup> Surveyed directories are Europage and Kompass.

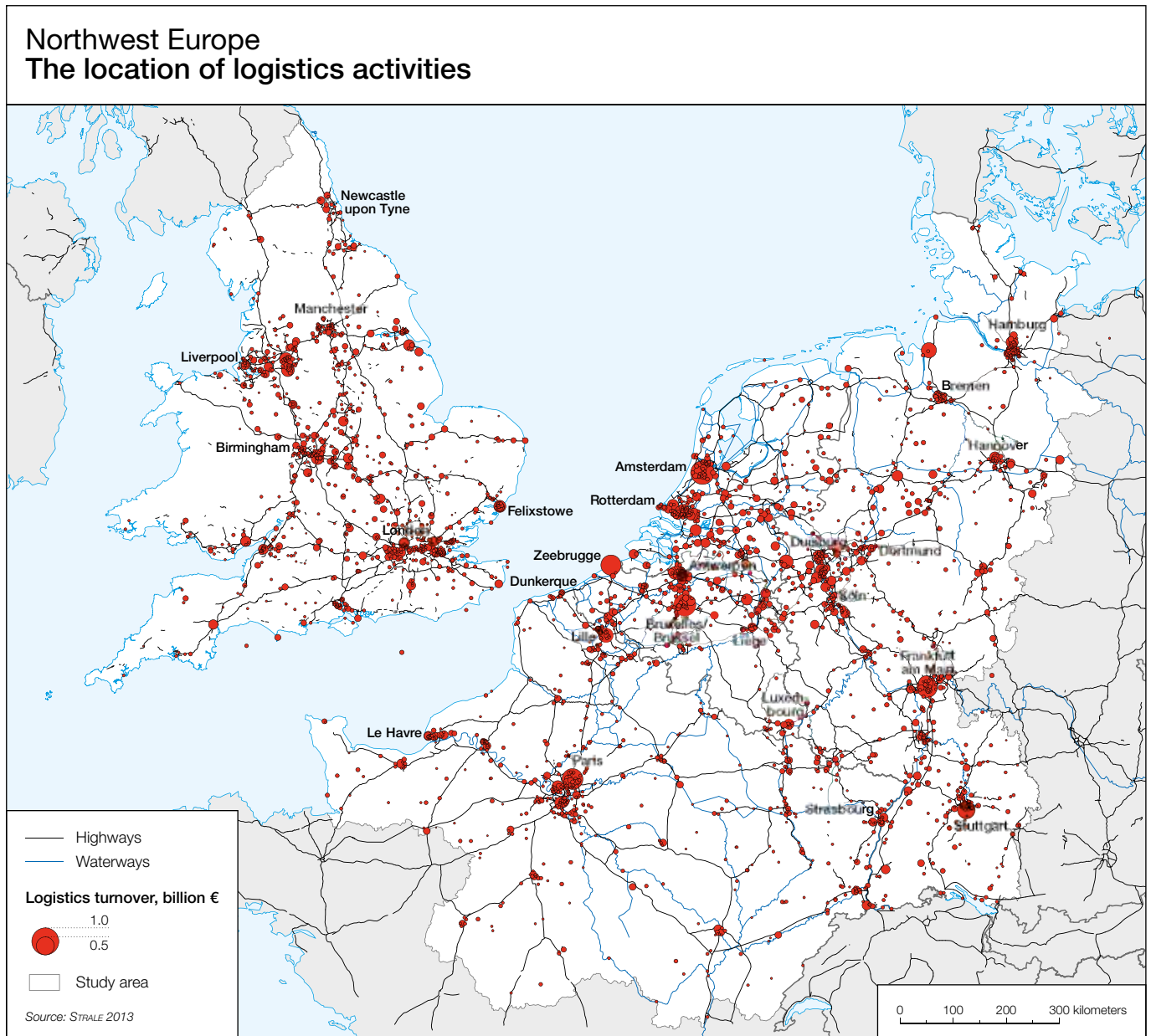


Fig. 1: The location of logistics activities

Other researchers have already used this method (CARBONE 2004; DABLANC et al. 2010). However, the large number of logistics sites taken into account and the size of the territory we study are innovative. No other geographic study of the location of logistics activities is as detailed, both in spatial terms and in the differentiation of its logistics activities. Since there are no complete statistics on this subject, our method may compensate for the lack of data.

However, this also creates methodological issues. The first and main one is the fact that this study is limited to out-sourced logistics. Indeed, our survey

covers only autonomous logistics locations. We have no data on inner logistics. Internal logistics activities that are not carried out on independent locations (such as distribution centres), may not be analysed as pure logistics locations. They are influenced by other activities of the enterprises rather than by logistics constraints.

Another limitation is the fact that our survey is limited to the biggest European actors, because the smaller ones have not been analysed and followed by the specialised press. It should be interesting to conduct a second analysis based on the small actors. However,

such an analysis would require a different methodology.

The last element is the representativeness of the surveyed logistics sites and the potential bias of the sample. The large number of sites and absence of a border effect (STRALE 2013) demonstrate the robustness of the methodology.

The study of the territorial impact of logistics activities and the related regional policy is based on case studies.

The European policy on logistics and freight transport is analysed, based on scientific literature, policy statements and publications by public authorities.

It is used as a framework for the next step of the analysis.

Next, the five main logistics platforms in Northwestern Europe have been analysed: Dourges Delta 3, Duisport Duisburg, Venlo Tradeport, Daventry DIRFT and Liège Triligiport. stakeholder involvement, location, infrastructures, aims, employment, funding, occupiers, surface are taken into account. They were chosen because they are in five different countries, and are therefore illustrative of different territorial and political contexts within Northwest Europe. In addition, these platforms the

biggest logistics developments in their country of origin (STRALE 2013).

This illustrates how public bodies and private operators act in a variety of logistics and territorial development matters.

**The geography of logistics activities in Northwest Europe**

The analysis of the geography of logistics activities is based on the survey database. The analysis is conducted at regional, metropolitan and local levels. The results highlight the close relationship between the development of the logistics sector

and the evolution of the European economy.

At the regional level, logistics activities are concentrated in the most industrialised and populated parts of Northwest Europe (Fig. 2): the Rhine valley, the Benelux at the axis linking London agglomeration and the centre of England and the Ile-de-France region. In addition, port regions such as Bremen, Hamburg, Antwerp, Le Havre or Rotterdam concentrate logistics operations because of their role in international exchanges.

Medium densities of logistics activities appear between these high concentration

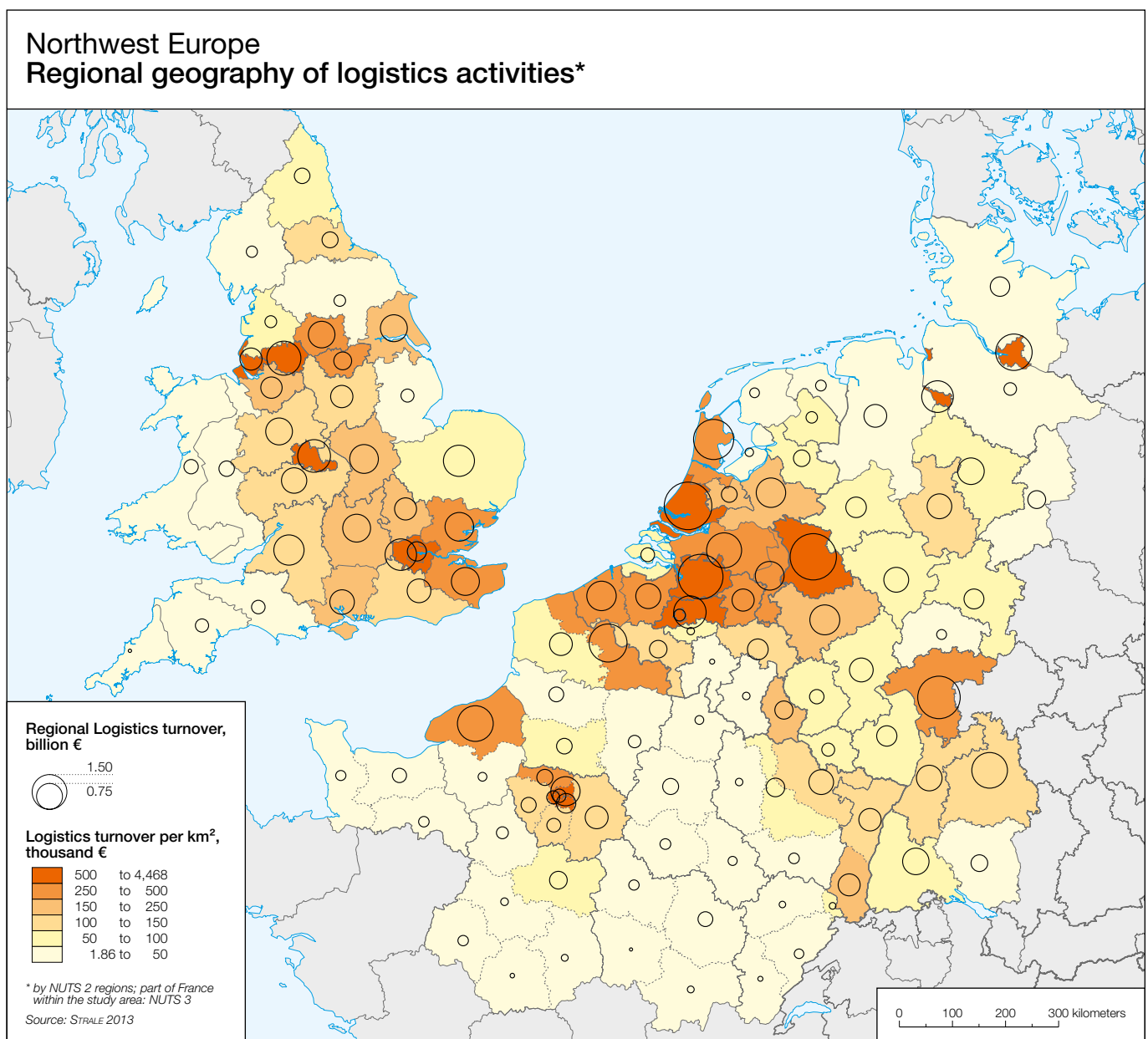


Fig. 2: Regional geography of logistics activities

### Northwest Europe Logistics activities and Functional Urban Areas

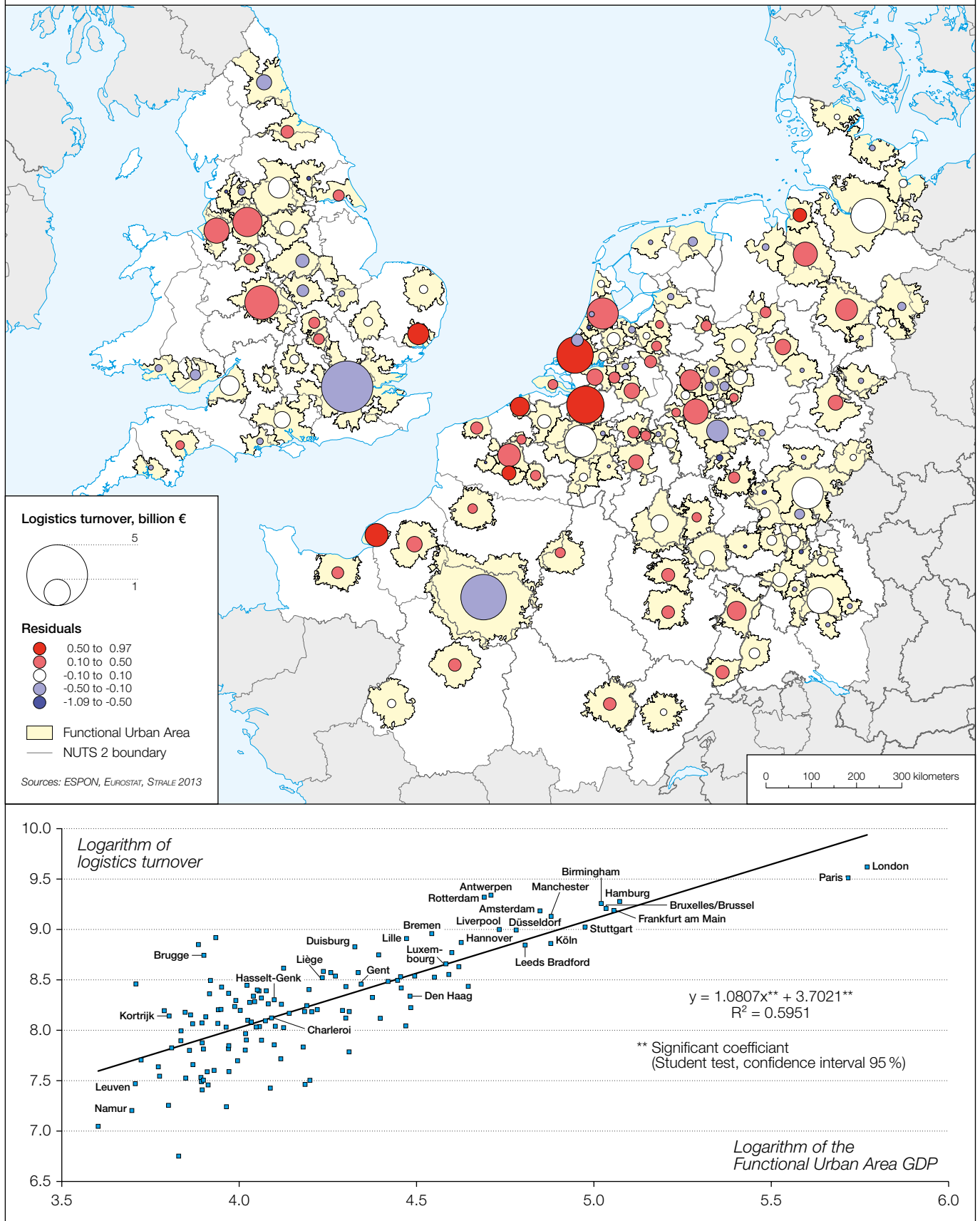


Fig. 3: Logistics activities and Functional Urban Areas

points. These are the linking axes. In particular, seaport hinterland regions close to Antwerp and Rotterdam benefit from a dense logistics fabric. This may be the result of the diffusion of these activities because of the saturation of seaports (HESSE 2008). Another main logistics and freight transport corridor appears along the Rhine valley. Finally a dense logistics space connects London, Birmingham and the English Midland cities.

In contrast, the least dense logistics spaces are the most rural parts of North-west Europe.

Moreover, there are cleavages between Northwest Europe's urban and port regions. For instance, the Antwerp and Rotterdam regions concentrate more logistics activities than Zeebrugge, Le Havre, Felixstowe or Bremen. This may be linked to the greater density of industrial and urban activities around Antwerp and Rotterdam (NOTTEBOM & RODRIGUE 2004; LAVAUD LETILLEUL 2007) and to the close and ancient relationship between port and industrial developments in these ports. Another element is the high density of logistics activities in the Ruhr area. Indeed, this region has a dense industrial fabric; what is an attractive element for logistics providers also acts as a Northwest European logistics hub with high capacity rail, road and waterway links to main Belgian, Dutch and German seaports (HESSE 2008; BOLDT & GELHAR 2010).

There is a significant overrepresentation of logistics activities inside of Northwest European cities. This results from the quantities of goods that are produced and consumed in these spaces.

The statistical relation has been established between the gross domestic product (GDP) of European Functional Urban Areas (FUA, as Defined by ESPON (2007)) and their amount of logistics activities, based on logistics activities survey (Fig. 3). The aim was to analyse the link between economic activities and logistics turnover. There is a positive correlation between the logarithm of GDP and the logarithm of logistics turnover. The elasticity coefficient is 1.08, signifying that

logistics activities grow faster than GDP of FUAs.

Again, port cities show an overrepresentation of logistics, because of the volume of freight exchanged there. In contrast, small cities with smaller markets generate less attraction. The biggest tertiary cities, Paris and London have an underrepresentation of logistics activities because of the relatively smaller amount of industrial activities in their economic structure. In addition, land is very expensive there, and unfavourable to the establishment of warehouses. Following the same logic, other tertiary cities such as Brussels and Frankfurt do not show an overrepresentation of logistics activities. Some secondary cities located around the biggest agglomeration or on major freight flows concentrate logistics activities. This is the case around Paris and London, perhaps as a result of the sprawl of logistics activities around the main cities, in relation to the cost and the availability of land.

The last element is the growing role of logistics real estate. The availability of warehouses and of logistics platforms heavily influences the location of activities; at the same time, real estate providers act in the same way as in the office real estate, creating numerous speculative sites. The geography of logistics real estate reflects the attractiveness of the Northwest European territory. At the regional level, attractive spaces remain the most industrialised and populated. However, there is an overrepresentation of seaport hinterlands, because of the importance of these spaces for European scale distribution schemes (RODRIGUE et al. 2013; NOTTEBOOM & RODRIGUE 2011). Distribution centres of multinational enterprises are located there, for receiving offshored productions coming from seaports and distribute them throughout Europe.

At a more refined level, suburban spaces and spaces around highways are the most attractive. These territories are accessible, close to the market and benefits from cheaper land prices than the more central ones. Another spatial logic is the

structure of the market: in centralised countries such as France, logistics real estate is concentrated around the main centre whereas in multipolar countries like Germany or Belgium, logistics are spread around every major regional market (Fig. 4). In England, there is a concentration of logistics buildings and distribution centres along the London-Birmingham-Manchester axis, because these locations may be used as distribution nodes for the whole country, providing good connexions to London as well as to the cities of North England (MCKINNON 2009).

These results highlight the close relationship between the development of the logistics sector and the evolution of the European economy. The flexibility and the European integration of the economy are causing the development of an autonomous logistics sector (HESSE 2008 & 2015). In turn, this activity contributes to the continuation and intensification of the current economic organization, facilitating the exchange of goods between economic actors. Therefore, the geography of logistics activities is the result of this need of flexibility, in terms of organisation and location. These results are similar to those regarding the geography of flexible economic activities (DICKEN 2015; CARROUÉ 2002; SCOTT 1988; HARVEY 2010): The preferred locations are close to urban areas, with an efficient real estate offer and good accessibility. These places are also far from socio-economically or environmentally damaged territories such as the old industrial regions. In this context, at the regional level, logistics activities participate in the metropolisation of the economic activity. However, there are differences among logistics activities and there are some contradictory logics among the scales of analysis. For example, logistics real estate prefers suburban locations, because of the cost and availability of land. In addition, good freight transport connexions are needed, which explain the overrepresentation of logistics activities in port cities. This situation has consequences for European territorial development and cohesion.

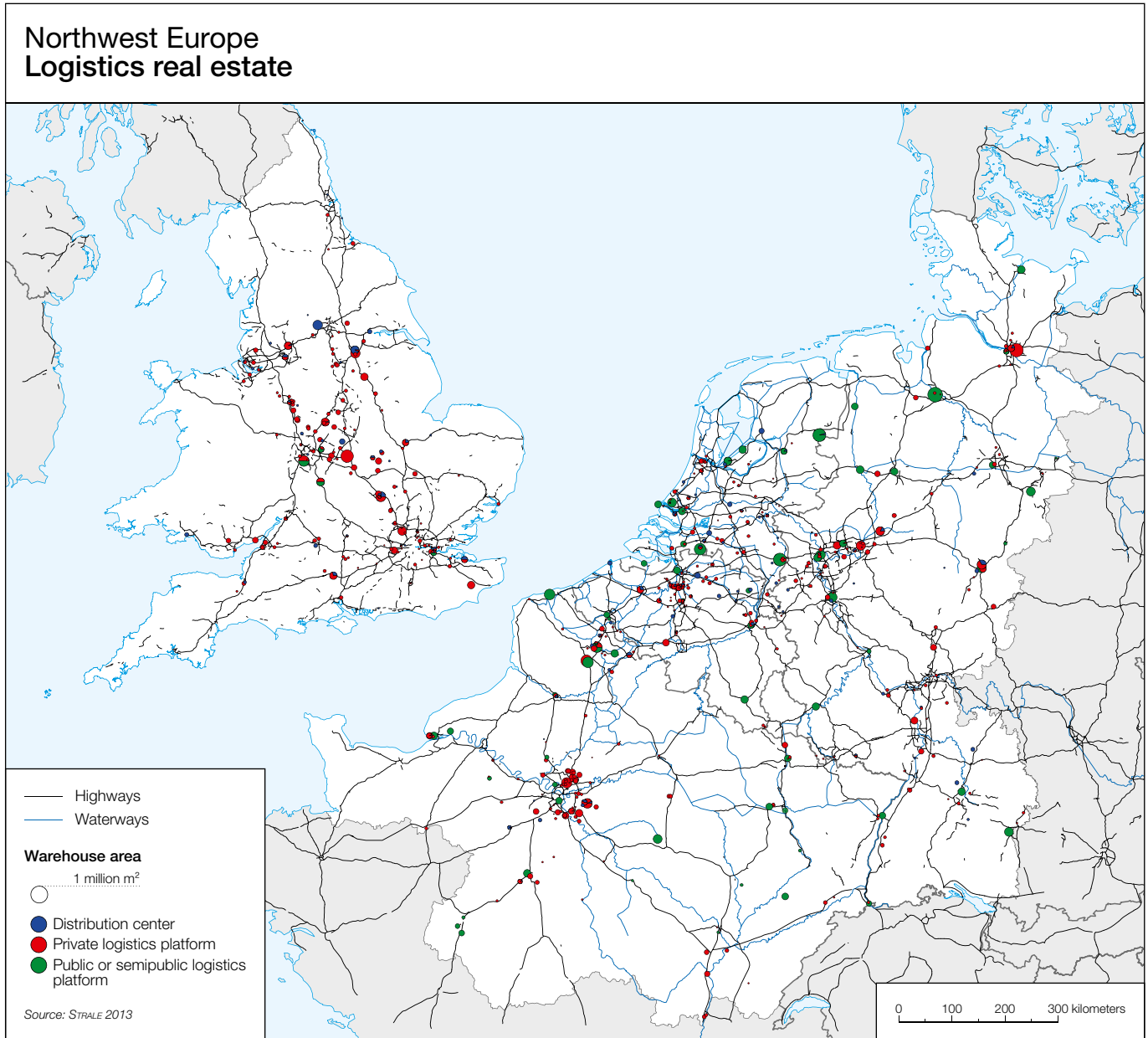


Fig. 4: Logistics real estate

### Logistics and spatial development

Public policy on logistics is the result of the European, national and regional actions on economy, spatial development, social matters and environment (Fig. 5).

At the European level, economic policy is based on the creation of a competitive and unified market (BAUDELLE et al. 2011). In this context, the development of freight transport and logistics services is promoted as a tool for exchanges growth and European territorial integration (EC 2007). By promoting logistics, the EU acts in the same way as other international actors such as the World Bank

or the OECD (HESSE 2015). By the same logic, the enhancement of “European champions” in logistics is a major goal because it may serve the competitiveness of the economy (PLEHWE 2001; EC 2007). Part of these new logistics leaders come from the privatisation of mail and transport services (DÖRRENBÄCHER 2003). On transportation matters, European aims are the development of multimodal transport and reducing environmental impacts by promoting an efficient and competitive transport market (TIGHT et al. 2004). Finally, the regional spatial development strategy is based on territorial competitiveness and subsidiarity (GUNDER 2010;

VANOLO 2010). Land use and economic policy is therefore delegated to regions.

At the national and regional levels, authorities follow an entrepreneurial policy, focused on economic development and private investment attraction. This is the consequence of the growing competition among European territories, of the rescaling of territorial competences and of the evolution of economic climate (SWYNGEDOUW 2000). While benefiting from growing competence, regional authorities are in no position to regulate the economy; in this context, the downscaling of competences results in the obligation of public



bodies to improve the business climate in order to enhance their position in a more global and competitive economy. As a result, regions are looking for investment (HARVEY 1989).

In logistics, this results in the creation of new infrastructure for attracting activities (i.e. logistics platforms) and of new business clusters for promoting their territories. Indeed, logistics is seen as an interesting activity, because it is a growing activity that may create low-skilled jobs and that seems less vulnerable to offshoring because of the link between final distribution and consumption markets (HESSE 2008). Moreover, logistics has the potential to connect territories to global production and distribution networks (HESSE 2015). So, logistics is frequently promoted by regional authorities, in particular in (old) industrial territories, because of the need for reconversion of manufacturing activities and jobs. Regions that were previously reluctant to host logistics activities, because of freight transport nuisances now aspire to become (European) logistics nodes (HESSE 2015). Of course, these evolutions of public action are linked to changes in the economy. The European and world economy are becoming more integrated and competitive, which is conducive to the growth of freight exchanges (DICKEN 2015). In consequence, logistics services are growing, for treating and supervise these goods flows. Related real estate services are also developing, following a similar operating mode as an office market: gathering institutional funding and investing in logistics real estate development (HESSE 2008; MCKINNON 2009).

Thus, a common goal appears: the creation of new logistics spaces. This is an instrument of job creation, network integration, spatial development and attractiveness for public bodies, a potential development space for logistics services and a place to invest for real estate actors.

As a consequence, there is a proliferation of logistics platforms in Europe. They are frequently based on joint public-private

partnerships (HESSE 2008). These initiatives are not supervised by a European structure, even if they have an international reach; in the territorial competitiveness approach, the regulation of initiatives is expected to come from the competition among infrastructures. The privileged locations are seaport hinterlands, for attracting global logistics providers acting at a European level. Regarding transportation matters, logistics platforms are often multimodal, giving access to waterway or rail with direct connections to major seaports.

On this basis, five European logistics platforms are studied as examples. These case studies are chosen because they represent five countries, being one of the major infrastructures of the country (HESSE 2008; STRALE 2013) and having that goal of attracting European-wide logistics services. These platforms are listed in Table 1:

- Logport Duisburg is located in Europe's largest inland port. This logistics platform aims at participating in the development of Duisburg as one of the most important logistics node in Europe. Logport is based on a public-private investment and management and is located on an old piece of industrial land. It benefits from a multimodal terminal operated by major container operators. The occupants are major German and global logistics providers.
- Venlo Tradeport is an industrial park which has been retargeted to logistics. New industrial lands have been dedicated to logistics providers on public-private partnership basis. The district was specialised in foodstuff processing, so large scale fresh logistics services have been targeted. There is a multimodal terminal with direct link to Rotterdam. Due to the relation of Venlo Tradeport with food production, half of workforce is seasonal.
- Daventry DIRFT is located between London and Birmingham, along the M1 highway and is directly linked to railway. It is a fully private operation, based on the development of new industrial lands and warehouses for lo-

gistics operators working at the national or international level. The occupants are major UK logistics operators and supermarket distribution centres.

- Dourges Delta 3 is a new logistics platform that has been created on a former mining site. It is based on a public-private partnership. Dourges Delta 3 is located along the highway between Paris and Lille and is connected to a high-capacity waterway linking the platform to Dunkerque. There is also a rail connection. New industrial lands and platforms have been created on the site. The occupants are European distribution centres and logistics services.
- Liège Trilogoport is a future logistics platform that will be created close to Liège, along the Meuse and Canal Albert Waterway, connecting it to Rotterdam and Antwerp. The site is a former coal factory. It will be based on a public-private partnership for financing the multimodal infrastructures, industrial lands and warehouses. Trilogoport is focused on European distribution and logistics by promoting its connection to major seaports and the vicinity to major markets.

#### **These projects have several points in common.**

Firstly, the funding is frequently based on public-private partnerships: public authorities provide lands and private actors build warehouses. Regional and European authorities are the major actors in the creation of logistics platforms, illustrating the key role of these decisional levels. On the private side, partners are banks, insurance companies and real estate providers. The management follows the same scheme, with a participation of private and public actors.

The locations of these logistics platforms are very similar: seaport hinterlands, with good road and multimodal connections to major seaport terminals. The aim is attracting European scale logistics providers that need to distribute goods at the continental level. Thus, the focus is on land availability, high capacity access to main transport nodes and fa-

mous partners, in particular for real estate offer. At a smaller level, preferred locations are brownfields. Indeed, this may give access to rehabilitation funds and it may also correspond to old industrial territories, where there is a need for new activities (HESSE 2015). In this context, these major logistics platforms are seen as redevelopment tools.

Regarding transport, multimodal accessibility is important, and all the logistics platforms benefit from a terminal that is managed by major seaport container transport actors. This seems to be an important factor for attracting logistics actors.

Finally, the occupiers of these logistics platforms are very similar: major distribution centres and European logistics platforms. They use their site as a national or European node.

### These policies and infrastructures raise several issues.

They illustrate the similarities between regional policies around Europe. Faced with the need to attract investors in competitive context, authorities act in the same way: positioning themselves as “logistics hubs” (HESSE 2015) in order to attract large logistics and freight transport providers and to be a node in the trans-

portation networks. Because of the limited public financial resources and following an entrepreneurial policy, these projects are based on public-private partnerships.

Thus, there is a competition among these territories to attract the same investors with the same arguments. In this context, private actors are free to use this competition to take advantage of better settlement conditions and more generous subsidies. Moreover, there is disequilibrium between large logistics firms or real estate actors and local or regional authorities. The former may invest and move at will within the European territo-

Main Northwest European logistics platforms					
	Logport Duisburg	Venlo Tradeport	Daventry DIRFT	Dourges Delta 3	Liège Trilopiport
<b>Investment</b>	Industrial park: public Investment: 200 million € (155 m€ Port of Duisburg / 45 m€ UE-ERDF)  Trimodal terminal: 24 % Port of Duisburg 66 % Contargo (Rhenus) 10 % Hupac (Switzerland)  Real estate investment: Privé, notamment Prologis et RAG Montan	Tradeport industrial parks: public land owned by the municipality  bimodal terminal: TCT (subsidiary of ECT container terminal manager)	Fully private investment  Real estate investment: BT, Aviva investors, Prologis	Total investment: 305 m€  - Public: 138 m€ (100 m€ NPdC / 38 m€ UE-ERDF)  - Private: 167 m€ (real estate)	Investment: 160 m€  - Public: 43 m€ (20.5 m€ Région Wallonne / 22.5 m€ UE-ERDF)  - Private: 115 m€ (DP World, WDP, DLL)
<b>Location</b>	Old Krupp factory, along the Rhine	New industrial spaces along the highway	New industrial spaces along the highway	Former industrial site along the highway and the waterway	Former industrial site along the highway and the waterway
<b>Date of creation</b>	1998	1980	1997	2003	2016
<b>Land area</b>	265 ha	470 ha	174 ha	300 ha	100 ha
<b>Warehouse surface</b>	200,000 m <sup>2</sup> built, 200,000 m <sup>2</sup> to be built	350,000 m <sup>2</sup>	300,000 m <sup>2</sup> built, 1,000,000 m <sup>2</sup> to be built	200,000 m <sup>2</sup> built, 300,000 m <sup>2</sup> to be built	150,000 m <sup>2</sup> to be built
<b>Multimodal access</b>	Trimodal	Trimodal	Bimodal rail-road	Trimodal	Bi- or trimodal
<b>Management</b>	Logport: Port of Duisburg, - 55 % Port of Duisburg - 45 % RAG Montant - Immobilien GmbH  Trimodal terminal: CMA CGM, NYK and duisport  Prologis manages part of land and warehouses	Land: private management  Terminal: TCT	Land: Prologis  Terminal: Malcom Group	Land: Public  Terminal: LDCT (Naviland, novatrans,...)	Land and warehouses: WarehouseDePauw et Deutsche Lagerhaus Gesellschaft  Terminal: Port de Liège and DP World
<b>Workforce</b>	1,500	1,500 permanent + 1,500 seasonal	3,000	1,000	(2,000)
<b>Main occupiers</b>	Wincanton NYK Rhenus IHG Cobelfret Mackprang Group, GNS Imperial group, Rhenus, Rheiner Bronen, Simon Hengele, Helman, DHL, Schenker, GEFCO, Géodis	Prologis, Géodis, DSV, KLG, UPS Arrow, DHL, Eurotyre, Rhenus	Tesco, Royal Mail, Eddie Stobart, DHL, Mothercare, Ingram Micro, NFT, Malcom Group, Nissin	DHL, Kiabi, Decathlon, Gefco, Rexel, Dascher, Leroy Merlin	DP World, WDP, DLG

Sources: Delta 3 2011; Duisport 2004, 2009; NOTTEBOOM 2009; Provincie Limburg 2008; RRSPL 2010; Wallonie, DGO2 2012

Tab. 1: Main Northwest European logistics platforms

ry when the latter depend on these large private actors' strategies for their economic and territorial developments.

Yet, logistics activities are less connected to their hosting territory, in particular European wide ones (OOSTERLYNCK & SWYNGEDOUW 2010; HESSE 2015). They are mobile and they may easily and rapidly move to another location because of financial incentives or strategic decisions. So, it may be risky to base its strategic development on these activities.

Thus, there is a higher risk of underused or misused infrastructures where the offer of logistics platforms will be excessive or inadequate. At this time, these situations are limited to small platforms, working at a lower scale (HESSE 2008): in various European regions, the multiplication of infrastructure has generated empty and underused platforms. However, this phenomenon may also occur in larger platforms, if there are too many initiatives. Indeed, as stated in the first part of the article, not all places are suitable for logistics activities.

In addition, the employment growth in logistics and freight transport sector has not been scientifically or statistically proven. Indeed, the higher number of job in logistics and the development of logistics providers are, at least partly, attributable to the evolution of the industrial organization and to the outsourcing of these functions. Thus, job creation on logistics platforms may correspond to relocation or loss of activities in other places.

Another promoted element when developing logistics platforms is the clustering effect of such infrastructures (SHEFFI 2010). However, as HESSE (2015) highlights, these logistics clusters are not so automatic and many logistics platforms and nodes are only concentration of different enterprises without collaboration and interactions. Thus, these may be fragile agglomerations, because of the absence of advantages of being close to each other.

From the environmental point of view, logistics platforms create various externalities, mainly higher freight traffic in the neighbourhoods and land consump-

tion (MCKINNON 2009). Indeed, logistics is a low-density activity, based on single-storey buildings and new developments, such as European distribution centres requiring large tracts of land. However, these logistics developments may be based on brownfield reconversion. Regarding transportation matters, multimodality of logistics platforms may contribute to the reduction of road freight traffic. Yet, this requires a limited number of nodes, in order to concentrate freight flows on rail and waterways.

In this context, the role and the action of the European Union are ambiguous. By promoting the development of logistics activities and by participating in the funding of many logistics infrastructures, the UE fuels competition among territories. Moreover, the absence of a European framework on logistics platforms raises the risk of waste, or at least of the misuse, of European funds and territory, because of the creation of underused or unused logistics structures. The main winners in this case are the private investors, because of the bargaining effect it creates inside the European territory, at the expense of European funds and population.

## Discussions

The result of this study may be very useful for improving the understanding of European territorial development. Indeed, logistics activities are regularly seen as an economic (re)development tool both by the European Union and national or regional authorities. Thus, the understanding the spatial logics and of the territorial impacts of this activity is imperative.

Our result has put previous findings into perspective and has responded to a lack of knowledge about the economic geography of logistics. This geography is exigent. It signifies that not all the European space is suitable and that logistics developments should be analysed carefully, to verify the actual needs and potential of the chosen places. Since privileged places already concentrate economic activity, logistics may not be the best

economic sector for redeveloping territories that are facing economic difficulties. Second, logistics is a necessary tool for improving the efficiency of goods exchanges. Therefore, its development influences the economic competition inside Europe and within Europe and the rest of the world. Third, the development of logistics providers is the result of the externalisation of this operation by economic actors; its growth is not associated with a similar evolution of the employment. So, it creates a competition among European territories what wish to attract or preserve jobs. Finally, many environmental issues are linked with freight transport and logistics, so a knowledge of its geography is important. The preference given to semi-peripheral spaces may be beneficial for road transport. However, the development of logistics hinterlands around seaports is a potential vector of goods consolidation, which is a need for rail or inland waterway development.

All these elements may be useful both for territorial and freight transport policies in Europe. In particular, it pleads for a more place-based approach of the European policy in logistics and of related ESIF. Indeed, policies on logistics will not have the same results in all areas and some territories seem to be better suited for logistics developments. In addition, a better integration between freight transport policies and logistics policies should be relevant. These are interlinked issues.

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**Резюме**

Матье Штрале

**Штандорты для развития логистики в Северо-Западной Европе: эмпирический анализ**

В Европе в ходе формирования экономических структур и благодаря созданию единого европейского пространства произошло быстрое развитие логистики. Исходя из этого, в статье рассматриваются географические аспекты развития логистики в Северо-Западной Европе и территориально-пространственные последствия указанного процесса. Работа основана на эмпирическом подходе. Основой географического анализа является изучение ряда типичных логистических штандортов Северо-Западной Европы. Вопросы регионального развития рассматриваются в рамках реализации соответствующих европейских директив. Результаты показывают значение уже существующих социально-экономических структур, необходимых для понимания географических аспектов логистической деятельности. Рассматривается влияние изменений в политике территориального развития на всех европейских уровнях принятия решений, касающихся развития логистики.

Логистика, Северо-Западная Европа, география, региональное развитие, региональная политика

**Résumé**

MATHIEU STRALE

**La localisation des activités logistiques dans le nord-ouest de l'Europe: une analyse empirique**

Les activités logistiques se développent rapidement en Europe, en raison de l'évolution des structures économiques et de l'intégration du territoire européen. Partant de ce constat, cet article s'interroge sur la géographie de ces activités à l'échelle de l'Europe du Nord-Ouest et sur les impacts territoriaux de cette activité. Pour répondre à ces questions, une approche empirique est suivie, basée d'une part sur l'analyse de la géographie d'un échantillon d'établissements logistiques et d'autre part sur le décryptage de la politique poursuivie en matière de logistique en Europe. Les résultats illustrent l'importance des structures socio-économiques préexistantes pour comprendre la géographie de l'activité logistique. En outre, ils démontrent l'impact des mutations de la politique de développement territorial sur la façon dont est traitée la question de la logistique en Europe

Logistique, nord-ouest de l'Europe, géographie, développement territorial, politique régionale