

# LOGISTICS REAL ESTATE NETWORK EXPANSION

## THEMES SHAPING NEW LOCATION SELECTION IN EUROPE



February 2016

E-commerce is booming, logistics hot spots are shifting and global supply chains are being restructured. Choosing locations for new logistics facilities are more complex than ever before. So how are decision-makers responding?

In our most recent survey, Prologis Research and EFT polled logistics industry participants in Europe to see how new real estate footprints are being developed. The survey, which was first conducted in 2013 and then repeated over the past few months, revealed the most important factors driving location selection, as well as the current European logistics hotspots (and a few locations that have dropped in importance). Our survey also shines a light on how decisions have evolved over the past two years.

Our survey uncovered four key insights:

1	What drives favorability	Key factors shaping location choice include proximity to economic centers and the <b>presence of modern and efficient infrastructure</b> . Positioning to serve global trade routes is also important.
2	The most desired locations	Favored locations include those within the <b>Benelux and in Central and Eastern Europe (CEE)</b> . Many of these locations are oriented along international and global trade flows and are near Europe's major consumer markets.
3	How will location choice change	Users remain laser-focused on modernizing their supply chains and, for many, this means augmenting their networks with facilities that have pan-European capabilities. Looking forward, users are concerned about the <b>availability of labor</b> , the ongoing <b>expansion of global trade volumes</b> and changes in infrastructure.
4	E-commerce and sustainability are increasingly the name of the game	Logistics locations and facilities best-positioned to meet e-commerce and sustainability requirements have a measure of futureproofing at work. Relative to our study two years ago, users notably increased their emphasis on these factors to make decisions.

Our survey results also helped us to develop detailed regional overviews and desirability heat maps for Western Europe, Southern Europe, Central and Eastern Europe and the U.K. & Ireland (the maps are in the appendix of this report).

**What does it all mean?** For policy makers, our study encourages infrastructure and labor force policies that attract logistics businesses. For users, the primary consideration is the availability of labor. While ample today in some markets, that may change as unemployment eventually normalizes. Also users should maintain a focus toward e-commerce. These efforts will certainly be rewarded. For investors, our study conveys a greater understanding of how customers may augment their networks in the coming years, although long-term value creation also follows from constrained supply.



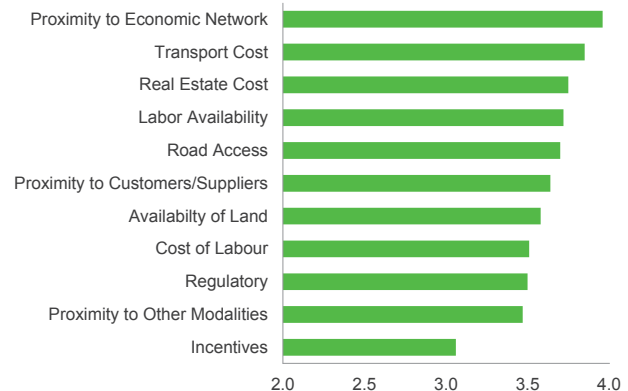
## INTRODUCTION

Prologis partnered with Eyefortransport (EFT) to explore industry perceptions on the most desirable logistics locations in Europe and to quantify the criteria which influence site selection. Warehouse users (216 respondents) from a range of sectors—from retail to automotive to pharmaceuticals—were asked by EFT to share their views by ranking 100 locations against eleven criteria. Responses cover areas including (i) key logistics location selection criteria, (ii) the most desirable logistics locations in Europe today, and (iii) key demand drivers of the future. Our paper follows this outline.

## SECTION 1: WHAT DRIVES FAVOURABILITY?

**Favour proximity and transportation.** We surveyed customers across eleven different location criteria. While most criteria earned scores above 3.5 on a 5.0 scale, implying elevated importance across most categories, the responses for leading categories should come as no surprise to seasoned site selection professionals. In summary, users favour closeness to economic networks, low costs (both transport and real estate costs) and an availability of skilled labor. At the other end of the spectrum, incentives play less of a role (although still earning a score above 3.0 on a 5.0 scale).

### EXHIBIT 1 Ranking of Location Factors

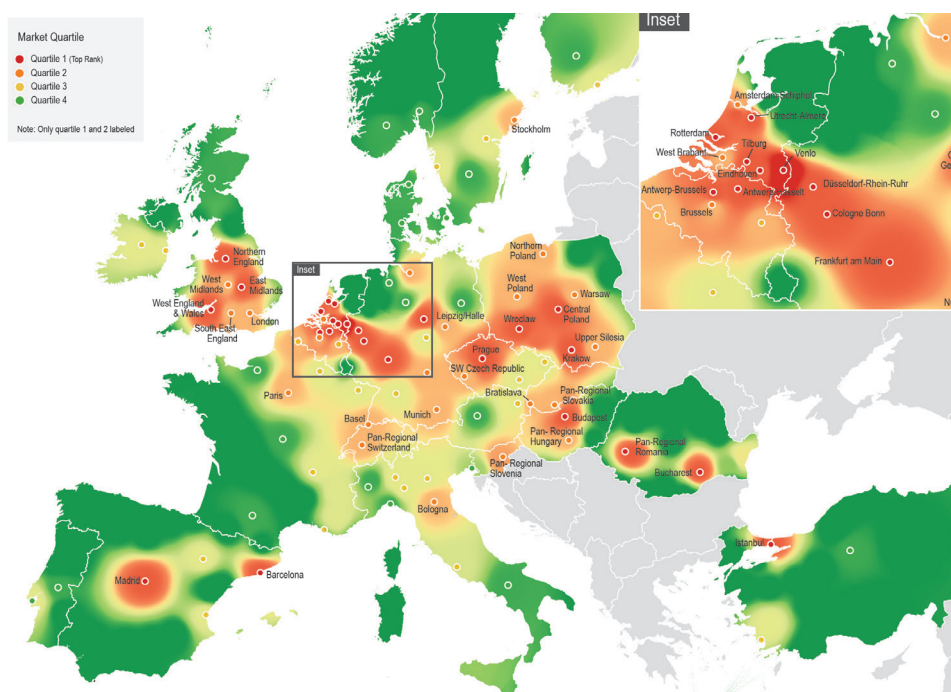


Source: Prologis Research

**Importance of location criteria differ across the different verticals.** “Transport cost” is the most important location driver for the auto, high-tech and manufacturing industries, while retail sees “labor availability” and “proximity to customers & suppliers” as the most important location criteria. The Pharma sector ranks barriers regarding “regulations” higher compared to the other sectors.

**Subtle shifts in customer location preferences.** In comparison to 2013, infrastructure and real estate

### EXHIBIT 2 Heatmap: Europe's Most Favored Locations



Source: Prologis Research

requirements rose in importance as a location driver. For instance, the criterion “proximity to different types of modalities” scored 33% higher in comparison to 2013. On the other hand, the requirement “labor and government” decreased in importance. Within “labor and government” the criterion “amount of incentives” was relatively less important in both our 2013 and 2015 surveys. “Labor availability” declined two positions to become the fourth most important criterion.

## SECTION 2: THE MOST DESIRED LOCATIONS - BENELUX STILL HOT

**Benelux and Western Germany the most favoured locations.** Among the 100 locations in Europe, the most favoured are within the Benelux and western Germany. Each of the top 5 locations are in the Benelux. A common theme is their capable “infrastructure”. In addition, these markets also scored well in their “proximity to customers and suppliers”. Among these highest ranked markets, Venlo is Europe’s most desirable location, a repeat of our 2013 survey and significantly ahead of other markets in our latest survey. Venlo scored best in 9 of the 11 location criteria, scoring particularly high for ‘availability of land’, ‘road access’, ‘transport cost’ and ‘regulatory’.

**The biggest improvement is among locations in the CEE.** Central Poland and Istanbul entered the top 10 and Prague (#11) is close. In total, eight CEE locations made it into the top 20 (compared to 4 in 2013). A choice within the CEE often boils down to balancing low cost and distance from customers. Low cost is a major factor; markets in

CEE dominated the ranking in the criteria “cost of labor” and “real estate costs”. They continue to lack in criteria tied with infrastructure and proximity to customers and suppliers. Central Poland is the only location reaching a top 10 position in these two requirements.

The rise of markets in CEE is at the expense of markets located in Western Europe. Markets that showed the strongest declines in their ranking are Liege, Paris, and Central Germany. Air cargo hubs, like Frankfurt and Amsterdam-Schiphol, lost ground as well. According to the survey results, this is due to lower scores for the location drivers “labor availability” and “cost of labor”. Notable in its absence from the top quartile is France, Paris is found in the second quartile, reflecting a smaller appetite among customers for expansion in the coming years related to less supportive labor and government policies. Indeed, Paris is the last of the major markets to recover in Europe.

## SECTION 3: HOW WILL LOCATION CHOICE CHANGE?

**We asked survey respondents to address drivers of change.** Exhibits 4, 5 and 6 detail their answers, which are accompanied with our analysis below. Among the details, forefront on customers’ minds are positioning their supply chains to:

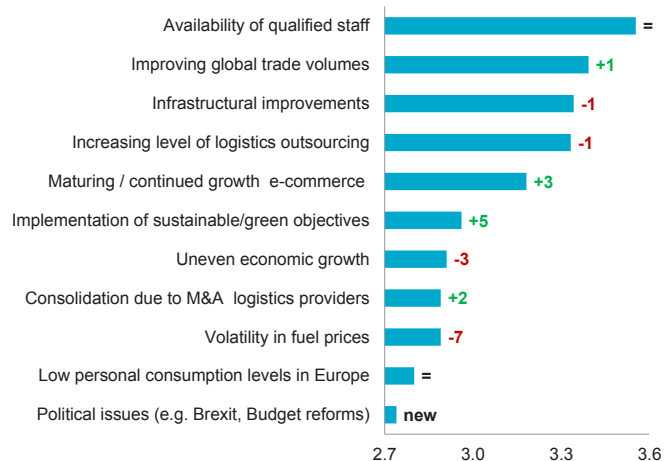
- Attract staff
- Position for rising global trade volumes
- Capitalize on the benefits of logistics outsourcing

**EXHIBIT 3** Countries with a Ranking in Top 25

Country	Region	Total Markets
Netherlands	Western Europe	6
Germany	Western Europe	4
Poland	Central Europe	3
United Kingdom	UK & Ireland	3
Belgium	Western Europe	2
Spain	Southern Europe	2
Romania	Eastern Europe	2
Turkey	Eastern Europe	1
Czech Republic	Central Europe	1
Hungary	Central Europe	1

Source: Prologis Research

**EXHIBIT 4** Drivers of Change by 2020



Source: Prologis Research



- Plan for the future, including addressing e-commerce and sustainability requirements
- The collective implication of all trends means greater consolidation rather than decentralization.

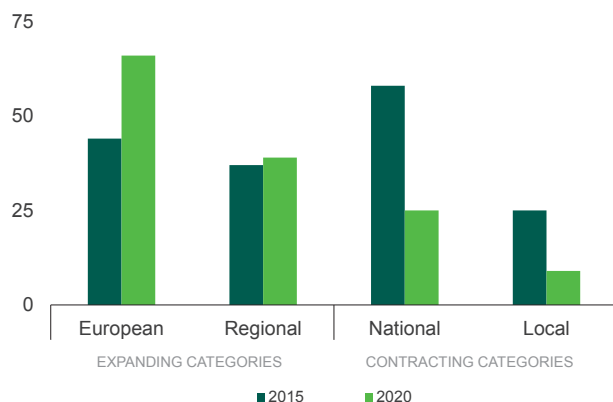
**EXHIBIT 5 Drivers of Change and Effects on Distribution**



Source: Prologis Research

Availability of staff is the most important driver. However, the importance of this driver differs significantly per country-region in which the respondents are active. In general this driver is most important in northwestern Europe and the United Kingdom and of less importance in the European periphery. However, across Europe it remains a challenge to find qualified and experienced staff.

**EXHIBIT 6 Network Type Evolution**



Source: Prologis Research

### Main drivers of change are structural in nature.

Factors, such as global trade, outsourcing and infrastructural improvements, appear poised to be stronger drivers of change than cyclical drivers, such as economic development and consumption. Availability of staff is the most important driver, which is likely both structural – the simple presence of people – and cyclical – the simple unemployment rate. Recent stricter border controls are a headline risk and indeed limit the free flow of goods. Yet, with respect to logistics real estate strategies, multiple other drivers such as the consolidation of inventories and the benefits of scale in a larger facilities, tempers the impact on location choice.

### Shifting priorities increasingly emphasizing sustainability and e-commerce.

Compared to our prior survey in 2013, two categories that were relatively unimportant at the time are now much more important: sustainability and planning for e-commerce. Sustainability has become particularly important for brand-sensitive customers, such as retailers and consumer packaged goods distributors. As for e-commerce, its growth has exploded in recent years and is only likely to become more important.

### Priorities generally driving consolidation.

All drivers of change are expected to lead to more consolidation of distribution networks. The strongest drivers of further consolidation of distribution network strategies are “M&A among logistics providers” (83% expect consolidation), “availability of qualified staff” and “improving global trade volumes” (both 76%). Expectations are that specifically “availability of qualified staff” and ‘global trade’ lead to more consolidation as these are scored as the most important drivers of change in the coming five years.

Drivers of change with the highest allocation to decentralization are “e-commerce growth” (45% expects decentralization) and “volatility in fuel prices” (41%). E-commerce players have an increasing desire to be located closer to their end-customer which leads to a decentralization of their networks.

### Consolidation expected to continue.

Distribution networks are expected to expand further to a European network. Almost 45% of the respondents currently runs a distribution network, and this share is expected to increase to 66% by 2020. This is an increase of approximately 20% which is at the expense of National and Local

networks. The prolongation of the consolidation trend leads to larger European networks and warehouse users looking for space at the key logistics hotspots to find a balance in the highest service levels for the lowest costs. Of note, buildings have been getting bigger for more than a decade, and indeed 60% of buildings started in 2015 were greater than 25,000 square metres and nearly 25% were larger than 50,000 square metres, and consolidation will only expand the trend.

### **CONCLUSION: WHAT DOES THIS MEAN IN THE LONGER TERM?**

Logistics companies are constantly optimizing their distribution strategies to ensure the highest service levels for the lowest costs. The European market is driven by long term trends, such as proximity to economic networks, sourcing staffing and consolidation. The right location optimizes long-term opportunities for the growing footprint of warehouse users.

As distribution networks are expected to become more pan-European, markets in CEE become increasingly favourable for operations. This is driven by low costs

factors for both employment and real estate and long term trends like the emergence of the middle-class. Although massive infrastructure improvements have been made in the past decade, infrastructure continues to lag behind the Western European standard. Once infrastructure improvements are in place and economic networks are better connected, more locations in CEE are expected to move further up the overall rankings.

In what type of locations will a warehouse user expand its footprint in the future? There are multiple factors driving this decision but well-connected locations with a pool of qualified staff close to economic networks are best positioned for the future. In addition, these locations need to be able to respond to new types of trends like the rise of e-commerce and sustainability innovations. These are preferable characteristics for investors and developers as well. However, to remain a favourable location for the investment community, a discipline in land allocation is needed.

To conclude, logistics corridors and infill locations in Europe's largest metropolitan areas with high trade volumes and consumer demand are expected to benefit most from the expanding footprint.

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Prologis, Inc. is the global leader in industrial real estate. As of December 31, 2015, Prologis owned or had investments in, on a wholly owned basis or through co-investment ventures, properties and development projects expected to total approximately 669 million square feet (62 million square meters) in 20 countries. The company leases modern distribution facilities to more than 5,200 customers, including third-party logistics providers, transportation companies, retailers and manufacturers.

## EFT

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# REGIONAL DETAILS

## WESTERN EUROPE



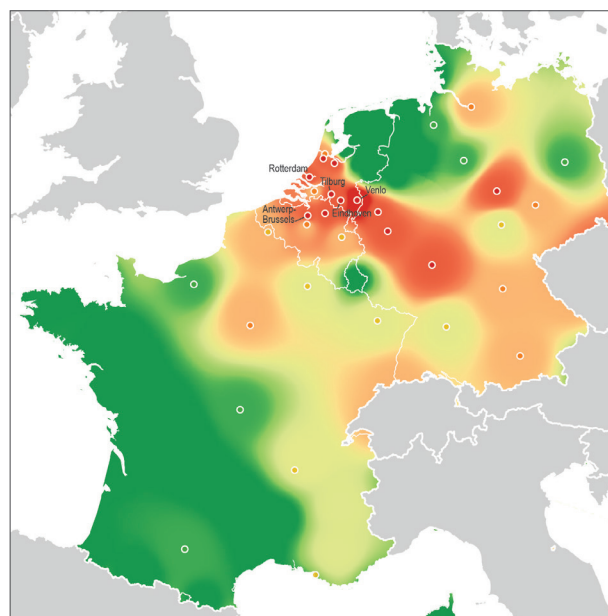
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As an addendum to the report "Logistics Real Estate Network Expansion," this page provides a more detailed insight into the change in rankings of logistics markets in Western Europe

### Key Results

- Top 5 of Europe is located in the Benelux
- Out of the top 25 (first quartile), 12 markets are located in Netherlands, Belgium and Germany
- Paris is the most desirable location of France and is ranked in the second quartile
  - » Out of the 10 French markets included in this study, 6 markets improved their scores
  - » Markets in the Northern part of France, like Lille, showed the strongest improvement in comparison to the 2013 survey
  - » Lower score in labor & government requirement was main driver for French markets which lost ground
- 9 out of 13 German markets lost ground
  - » Loss is mainly driven by locations ranked in second and third quartile
  - » Top ranked markets improved their scores. Higher ranking for Dusseldorf-Rhein Ruhr (ranked #6, +4) and Cologne (ranked #10, +18)

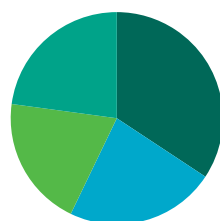
### HEATMAP Western Europe



### RANKING Key Statistics for Western Europe

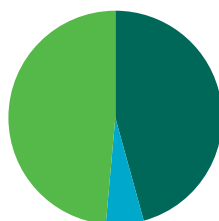
(total 35 markets)

Allocation Quartiles



- 1st Quartile
- 2nd Quartile
- 3rd Quartile
- 4th Quartile

Change 2013 Score



- Improved
- Stable
- Decreased

### Top 5 Western Europe

Top 5 W EU	Rank in EU	Market	Rank in EU (2013)
1	1	Venlo	↔
2	2	Rotterdam	↑
3	3	Antwerp-Brussels	↓
4	4	Tilburg-Waalwijk	↑
5	5	Eindhoven	↑



# REGIONAL DETAILS

## SOUTHERN EUROPE



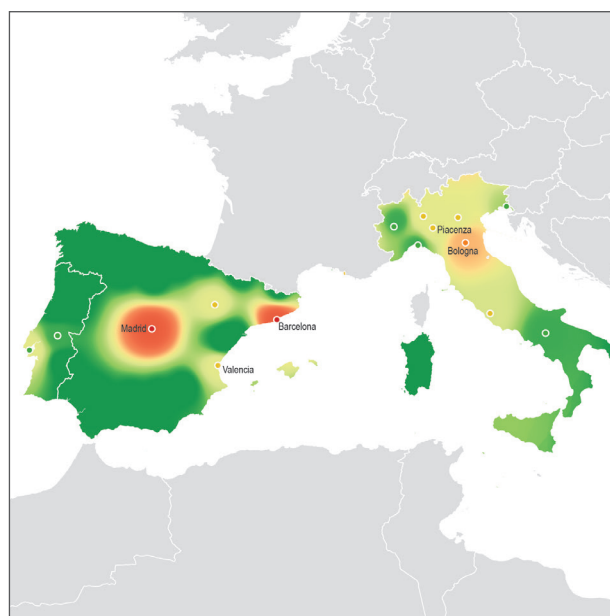
February 2016

As an addendum to the report "Logistics Real Estate Network Expansion," this page provides a more detailed insight into the change in rankings of logistics markets in Southern Europe

### Key Results

- Out of the 15 markets in Southern Europe, 9 improved their rankings compared to the 2013 survey
- Southern European markets scored well on real estate requirements but low on accessibility compared to other regions
- Spanish markets achieved the highest scores in Southern Europe
- Barcelona and Madrid are both ranked in the first quartile. Barcelona improved (+22 to #25) while Madrid decreased (-7 to #12)
- Madrid is the most favourable location in Southern Europe and outperformed in real estate and labor & government requirements
- Out of the 9 Italian markets, 6 achieved a higher ranking in comparison to the 2013 survey
- Bologna is Italy's most favourable location (#30) and the only Italian market in the first 2 quartiles. In comparison to 2013, Bologna improved its score significantly, from #95 (2013) to #30
- Markets in Northern Italy have the highest score in the real estate requirement

### HEATMAP Southern Europe



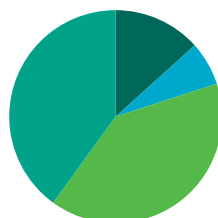
### Top 5 Southern Europe

Top 5 SE	Rank in EU	Market	Rank in EU (2013)
1	12	Madrid	↓
2	25	Barcelona	↑
3	30	Bologna	↑
4	62	Valencia	↑
5	64	Piacenza	↓

### RANKING Key Statistics for Southern Europe

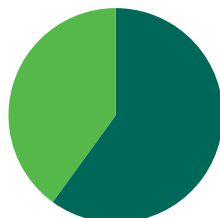
(total 15 markets)

Allocation Quartiles



- 1st Quartile
- 2nd Quartile
- 3rd Quartile
- 4th Quartile

Change 2013 Score



- Improved
- Stable
- Decreased



## REGIONAL DETAILS

# CENTRAL EASTERN EUROPE



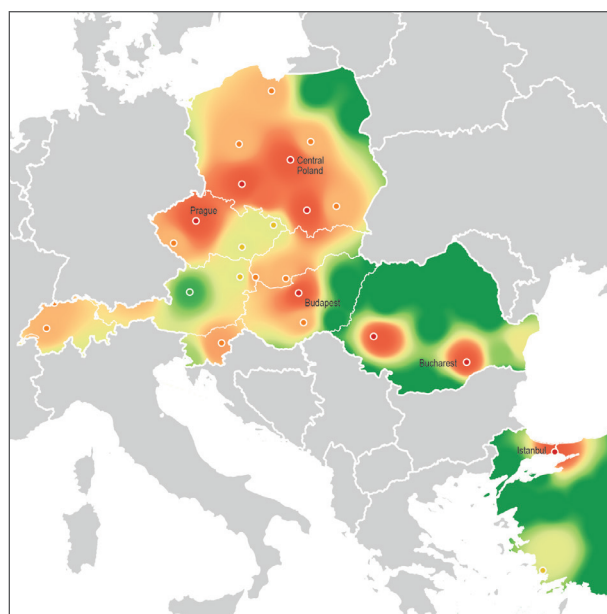
February 2016

As an addendum to the report "Logistics Real Estate Network Expansion," this page provides a more detailed insight into the change in rankings of logistics markets in Central Eastern Europe

### Key Results

- Out of the top 10 CEE markets, 9 improved their scores. This is the best performance of all regions
- Highest ranked markets are spread across the region, top 5 markets are located in different countries
- Top 10 markets scored either high on real estate (like Central Poland and Istanbul) or labor & government (Central Poland and Pan Regional Romania)
- CEE markets scored specifically high with regards to cost efficient locations:
  - » Out of the top 10 European locations in the criterion "cost of labor," 8 are located in CEE
  - » For the top 20 best locations with regards to "cost of real estate," 13 are located in CEE
  - » Regional markets in Turkey showed the strongest decline of their ranking (-44, #66). The current turmoil across the Turkish borders can be viewed as one of the drivers of this decrease.

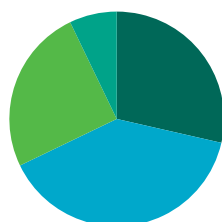
### HEATMAP Central Eastern Europe



### RANKING Key Statistics for Central Eastern Europe

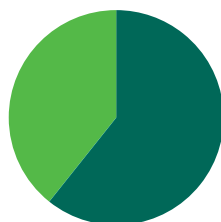
(total 28 markets)

Allocation Quartiles



- 1st Quartile
- 2nd Quartile
- 3rd Quartile
- 4th Quartile

Change 2013 Score



- Improved
- Stable
- Decreased

### Top 5 Central Eastern Europe

Top 5 CEE	Rank in EU	Market	Rank in EU (2013)
1	7	Central Poland	↑
2	9	Istanbul	↑
3	11	Prague	↑
4	13	Bucharest	↑
5	15	Budapest	↑

# REGIONAL DETAILS

## UNITED KINGDOM & IRELAND



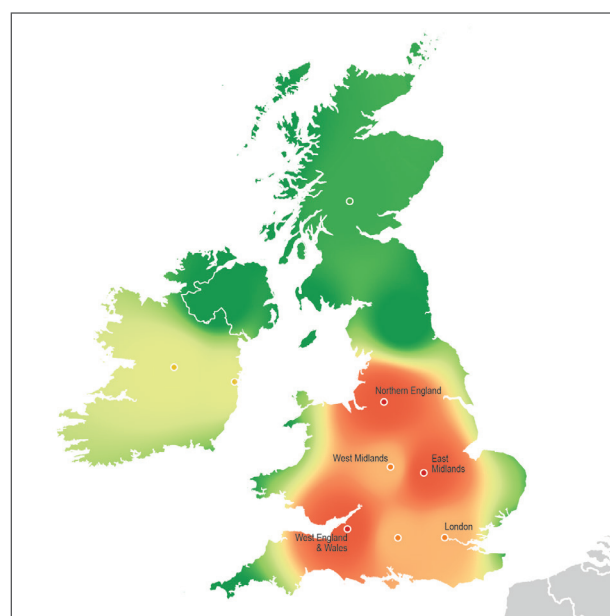
February 2016

As an addendum to the report "Logistics Real Estate Network Expansion," this page provides a more detailed insight into the change in rankings of logistics markets in United Kingdom & Ireland

### Key Results

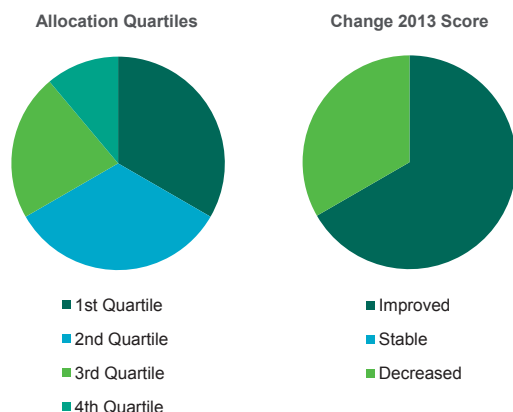
- As an island nation, the UK's appeal for pan-European logistics providers is limited relative to continental markets. As a result, UK warehouse users predominantly serve domestic markets. The results of this study should be viewed in this context
- East Midlands is UK's most favourable location
  - » With the exception of labor and government, it achieved the highest score of all requirements
  - » East Midlands achieved a high score for the criterion closeness to economic networks
- Markets showing the highest increases in scores are: W. England, W. Midlands and London
  - » W. Midlands scored better than E. Midlands in labor availability, cost of labor and regulatory
  - » London achieved the highest score in the criterion regulatory
  - » W. England scored high due to score in the criterion cost of labor

### HEATMAP United Kingdom & Ireland



### RANKING Key Statistics for United Kingdom & Ireland

(total 9 markets)



### Top 5 United Kingdom & Ireland

Top 5 UK-IE	Rank in EU	Market	Rank in EU (2013)
1	21	East Midlands	↑
2	22	Northern England	↓
3	23	West England & Wales	↑
4	29	West Midlands	↑
5	44	London	↑