



**UK
FOOD
VALLEY**

Greater Lincolnshire

THE COLD CHAIN & LOGISTICS INVESTMENT OPPORTUNITY

2024



www.ukfoodvalley.co.uk



**North
Lincolnshire
Council**

Lincolnshire
COUNTY COUNCIL

The Cold Chain & Logistics Market Opportunity

The UK's cold chain and logistics sectors are experiencing a period of rapid change and expansion. Net Zero carbon targets, rises in energy costs and workforce cost and supply challenges, alongside growth in cold storage demand are leading to increased investment in modern infrastructure.

The aim is to deliver supply chain decarbonisation, digitalisation, and automation, so the industry can increase productivity and sustainability.¹

Globally, the cold storage and logistics sector is growing, as demand for food increases with population growth and supplies chains become more complex. In the UK, the frozen food market is currently worth over £9 billion, and the chilled food market more than £13 billion², supporting food sales worth over £70 billion.

The country's cold chain industry is growing at an annual rate of 4%, driven by a steady increase in demand for frozen food³. If potential increases in cold storage demand continue as expected, the requirement for cold storage facilities and solutions will continue

to grow. The focus of the food industry is on more resilient supply chains with increased storage capacities close to market.

The combination of labour constraints, rising labour costs, and the drive for decarbonisation will need to be addressed by using high-efficiency, low-carbon refrigeration systems, and advanced, digitalised and automated warehouses and supply chains. This transformation presents a range of opportunities for businesses to gain a competitive edge, through investments in existing or new cold storage and logistics facilities.

Greater Lincolnshire is at the forefront of the UK food industry. The area uniquely combines large-scale farm production, food processing, cold storage and logistics capacities with leading-edge cold chain and Food Industry 4.0 and AI technologies and expertise. All of which creates a powerful location proposition for businesses seeking to profit from growing UK demand, and the transition to more efficient, productive, and sustainable cold chain and logistics operations.



THE MARKET GROWTH OPPORTUNITY

£9bn

UK Frozen Food
Market Value

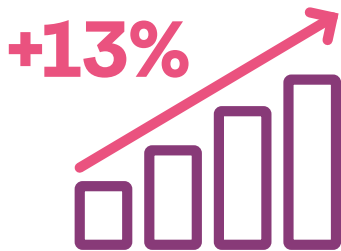
£13bn

UK Chilled Food
Market Value

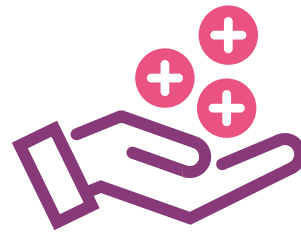
+4%

UK Cold Chain
Industry Growth Rate

The UK Needs More Cold Storage Capacity



UK demand for frozen food rose
by +13% in 2 years (2019-'21)⁴

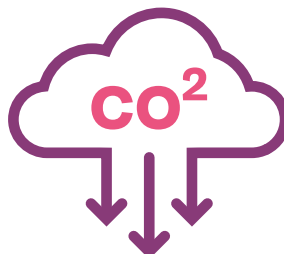


Long term growth from population
rise and focus on added value,
convenient food chains

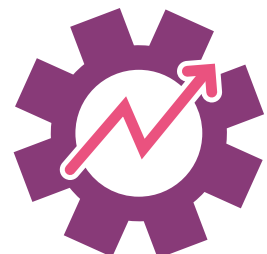
THE UK INVESTMENT OPPORTUNITY



Deliver the cool chain
infrastructure needed for
a growing food chain



Deliver world leading
energy efficient low
carbon cold chains



Boost labour
productivity through
automation and use of AI

The UK Food Valley:

The UK Food Valley has the scale to support food chain investment and aims to be a Global Top 10 Food Cluster

Agriculture, Food Processing, Wholesale Logistics & Input Suppliers support 75,000 jobs, GVA of £4.0bn

UK Food Valley has scale, depth & breadth in the food chain, with nationally leading specialisms in:

- Seafood
- Fresh produce
- Poultry & meat processing
- Plant proteins
- Logistics
- AgriFood Technology

Agriculture in the UK Food Valley:

- 4,300 farms on 580,000 hectares
- 30% England's vegetables
- 20% England's sugar beet
- 16% England's poultry
- 15% England's oilseed rape
- 13% England's potatoes
- 12% England's wheat & protein crops
- ~ £2.5billion output

**Sales over
£10.7billion
per annum**

**>90 international
agrifood
companies**

**30% UK food
travels via South
Lincolnshire**

Investment:

- £1/2 billion per year in major projects
- £1/2 billion per year in upgrades
- Over 130 £1m+ investments since 2016
- Over 30 investments >£10m
- Over 10 investments >£50m
- Investments in fresh produce, greenhouses, food processing & supply chain

UK Food Valley Cold Chain and Logistics Cluster

The area is at the heart of the UK's agri-food sector, with three large-scale cold storage and logistics industry hubs.

South Lincolnshire

- Centred on Spalding and Boston, is home to the UK's largest food logistics hub, handling 30% of the country's food at some stage in the supply chain.
- The Spalding hub is home to leading cold storage and logistics businesses, including Americold (29 stores), Fowler Welch (Culina Group), FreshLinc and Turners.
- Over 1,500 trucks leave Spalding with finished food every day of the year, the largest hub in the UK food chain.
- A Border Control Post (BCP) for the fast clearance of temperature-controlled foods from ports, and wide-ranging expertise in international trade.

The South Bank of the Humber Cluster

- Stretches from Grimsby to Scunthorpe, includes Europe's largest seafood processing cluster and, in the ports of Grimsby and Immingham, the UK's busiest bulk port, with an established cold store cluster in Scunthorpe.
- Grimsby has 230,000 tonnes of cold storage capacity, including one of Europe's largest facilities, operated by Lineage Logistics.
- Major cold chain transport providers include DFDS, while nearby Humberside Airport offers an airside Perishables Hub.
- Border Control Post (BCPs) in Grimsby, Killingholme and Immingham for the fast clearance of temperature-controlled foods from ports, and wide-ranging expertise in international trade. This is an opportunity for importers to move away from using southern UK ports to reduce food miles for deliveries into the Midlands and north of the UK.

Grantham

- The third hub on the A1 corridor is focused on cold stores near Grantham, including an existing cold store and the new Magnavale European leading facility.
- The Magnavale site will from 2024 have capacity for 145,000 pallets, with linked facilities to deliver picking, order fulfilment, freezing and tempering. Under 2 miles from the A1 the site will have state of the art robotics to load and unload the store and integrate with logistics providers.

As well as these clusters, the UK Food Valley has a further 450 cold stores operated by farmers, food and fish processors and food distributors. It thus has a depth and breadth of cold storage options to meet the needs of a modern food chain.

Greater Lincolnshire: The Cold Chain & Logistics Investment Opportunity

Greater Lincolnshire presents high-value opportunities for cold chain and logistics businesses to combine growth in the UK market with transformative, technology-driven innovation.

The UK Food Valley programme has identified three priority sectors for growth: cool chain and logistics; fresh produce and controlled environment agriculture; fish processing and aquaculture. Both the fresh produce and fish sector are critically dependent on cool chain infrastructure.

The industry is growing, with latest estimates showing approaching £1billion per year being invested by businesses in the UK Food Valley, of which 50% is being invested in new capacity with the other 50% being invested in modernisation and upgrading of existing facilities and equipment.

With the area's food producers and processors expanding to satisfy growing market demand, as well as significant potential for consolidation and economies of scale, profitable opportunities exist for further major investments in cold chain and logistics capacity.

In the context of workforce constraints, decarbonisation targets, increasing competition, and the need for more resilient supply chains, businesses investing in new cold chain and logistics operations must incorporate advanced technology solutions. These are areas in which Greater Lincolnshire excels, through the capabilities of the University of Lincoln – a leader in Food Industry 4.0 technologies.

These and other regional centres of excellence partner with businesses in key areas including low carbon energy, sustainable refrigeration, digitalisation, automation, and intelligent transportation - to deliver step-change improvements in sustainability, traceability and productivity.

The scale and diversity of Greater Lincolnshire's food logistics cluster means that the area can satisfy all the key requirements of businesses investing in the sector: a specialised workforce, skills providers focused on food industry needs, and dedicated, pre-consented sites for food processing, cold storage and logistics activities. Combined with leading-edge expertise and technology solutions, the area presents a unique opportunity for cold chain and logistics businesses to expand and gain a competitive edge in the UK market.

Low Carbon and Renewable Energy

The area's highly developed renewable energy sector, including the world's largest offshore wind farms, potentially provides businesses with direct access to reliable, low carbon energy sources.

Greater Lincolnshire is at the heart of renewable and sustainable energy generation in the UK with the South Humber Bank, offshore and Lincolnshire wide opportunity⁵.

With the world's largest offshore wind farms located off the coast in the North Sea, the potential exists for energy-intensive businesses, including cold storage and logistics providers, to access reliable sources of cost-effective, low carbon power across Greater Lincolnshire. The growth of the energy cluster is projected to attract £60billion of investment by 2040.

The Viking Link which is the World's longest power interconnector links South Lincolnshire to Denmark's wind farms. Also in South Lincolnshire a new strategic grid energy storage site will provide grid balancing to match renewable energy supply with demand, with others proposed across the area as Greater Lincolnshire embraces energy systems transformation.

Greater Lincolnshire also has a cluster of large Anaerobic Digestion (AD) plants which provide opportunities for low carbon cold stores. Additionally the high concentration and co-locations of agri-food operations in the region offers substantial opportunity for symbiotic energy relationships such as waste heat from refrigeration being used to heat glass houses, or waste ice being used for process water cooling, etc.

The Lincoln Institute for Agri-food Technologies (LIAT) has worked on large demand side grid balancing technology developments with industrial partners including Tesco. The new national programmes LIAT is leading on AI for agri-tech provides a platform to develop the use of innovative whole systems energy solutions.

Industry Led Innovation

The UK Food Valley has innovation as its central focus, helping the food chain to adapt and evolve to meet changes in market conditions. Working with the University of Lincoln, the UK Food Valley area is the largest recipient of Innovate UK applied research funding for the food chain. There are many ongoing business-academia R&D collaborations, and substantial international research collaborations feeding state of the art knowledge into the region to support the agri-food cool chain.

The UK Food Valley is focused on three cross cutting innovation themes, all of which align with efficient cool chains and the products that these supply chains provide. The three themes are:

Accelerating food chain automation and digital technology adoption to deliver productivity growth and high value jobs;

Delivering low carbon food chains from farm to fork by focusing on low carbon technologies for production, processing and distribution;

Developing the market potential of naturally healthy and nutritious foods, as well as new sources of protein, such as fish, vegetables, salads, fruit, pulses and lean meat, in which Greater Lincolnshire specialises.

Since its establishment in 2016, the Lincoln Institute of Agri-food Technology (LIAT) has secured agri-food innovation projects worth over £100m, working with over two hundred industry and academic partners.

The approach to innovation in the UK Food Valley is to:

Work with industry to identify problems

Assemble inter-disciplinary teams to tackle these problems

Co-create solutions through collaborative projects which accelerate development and adoption by industry.

The innovation team is led by experts with decades of direct industry experience so the solutions developed can be deployed by industry quickly and efficiently.

CAPABILITY

Available Sites & Properties

The UK Food Valley offers large-scale, pre-consented sites for food processing, cold storage and logistics activities, including:

Europarc III in Grimsby is a dedicated Food Enterprise Zone site with potential to accommodate facilities up to 24,000 sq m (260,000 sq ft). Sites within the South Humber cluster offer potential Freeport tax and customs incentives¹³.

South Lincolnshire Food Enterprise Zone (FEZ)¹⁴, in Holbeach, is a strategic development project to deliver 60,000 sq m of business space for agri-food research on food production and cold chain storage and logistics.

The Central Lincolnshire Food Enterprise Zone at Hemswell Cliff, to the North of Lincoln, is centrally located in the county and provides access via the A15 and A46 to the South Humber Bank, A1 and Midlands. This FEZ features on site renewable energy generation and is adjacent to existing major food chain businesses including Woldgrain and Parkacre. It provides up to 70,000 sqm of business space for the agri-food chain use¹⁵.

CAPABILITY

Advanced Food Industry Clusters

The South Lincolnshire cluster serves the region's substantial food production sector, with a focus on the processing, cold storage and distribution of fresh produce. As well as extensive cold chain capacities and expertise, the cluster offers advanced supply chain solutions in areas including national and international distribution, packaging, supply chain digitalisation, robotics and automation. The National Centre for Food Manufacturing (NCFM) part of the University of Lincoln with centres in Holbeach in South Lincolnshire and Grimsby in North Lincolnshire is the leading UK centre for food chain skills and workforce development, working with industry to develop and deliver a business focused curriculum.

The North Lincolnshire cluster offers capabilities in every aspect of food processing, packaging, distribution and frozen imports and exports. It is the centre of the UK fish processing industry with c.6,000 staff employed in the seafood supply chain centred on Grimsby, with a further c.10,000 staff in other types of food processing and distribution. Areas of leading-edge expertise include international trade, cool-chain, automation and robotics, food safety and microbiology.

Two other cold stores clusters are located in Scunthorpe, centred on Celsius Park and near Grantham where a new Magnavale cold store at Easton is being added to their existing site, to create a cold storage complex which will be UK leading in terms of capacity and efficiency.

CAPABILITY

Industry 4.0 & Refrigeration Expertise

The University of Lincoln's key research and technology capabilities include:

National Centre for Food Manufacturing: includes food processing, storage, quality and safety, robotics, automation, and cold chain logistics⁶.

Lincoln Institute for Agri-food Technologies (LIAT): specialisms include energy efficiency, sustainability and supply chain automation and digitalisation⁷.

Lincoln Centre for Autonomous Systems (L-CAS): expertise includes robotics and intelligent transport⁸.

The region's Trusted Bytes project⁹ is a collaboration including the University of Lincoln and leading businesses to revolutionise the digital food supply chain.

CAPABILITY

Workforce, Education & Skills

The UK Food Valley offers the skilled workforce required by the food chain, logistics and cold chain businesses seeking to expand and automate, with:

Over 75,000 employees in agriculture, food processing and logistics, 14% of the local workforce compared to 4% nationally¹⁰.

This industry concentration includes 6,500 food logistics workers and a further 8,000 in food wholesaling.

Future workforce supply is being invested in by industry and the public sector, including through:

- The Lincoln Institute of Technology¹¹ (Lincolnshire IoT) – the IoT is a collaboration of the area's further and higher education providers working with businesses to deliver industry focused skills. The IoT will have 1,700 students by 2025 and focuses on agri-tech, manufacturing and engineering to provide the engineers and technicians of the future.
- The National Centre for Food Manufacturing (NCFM) provides apprenticeships, degrees and PhDs in operations and supply chain.

There are multiple other sites across the UK Food Valley for large and small investors, ranging from farm based sites to general business parks and specialist food processing and distribution centres. These sites can meet most needs and locations, but if you need something specific the UK Food Valley team will work with you to help find suitable premises.

INVESTABILITY

Track Record

Greater Lincolnshire's cold chain and logistics sector has a proven track record of attracting major investments from UK and international businesses, including:

Magnavale will open the UK's largest carbon-neutral cold store at Easton, near Grantham in 2024 with 101,000 pallet spaces and automated loading/unloading, taking total capacity at this site to 145,000 pallets.

In 2022, Lineage, the World's largest cold store company, received planning permission to modernise and expand their cold stores in Grimsby.

In 2021, Americold acquired Spalding-based Bowman's Stores in a \$74 million deal.

New Border Control Posts (BCPs) have also been delivered in Spalding and the Humber.

POTENTIAL

Enabling the Transition to Low Carbon Logistics

Greater Lincolnshire's multimodal freight connectivity can enable investing businesses to develop low carbon supply chains, including:

The extensive services offered by the ports of Immingham, Grimsby and Boston can support the increased use of sea freight.

25% of UK rail freight passes through Greater Lincolnshire, presenting businesses with the opportunity to transport more goods by rail, which reduces carbon emissions by 75%.

Greater Lincolnshire's Location & Connectivity

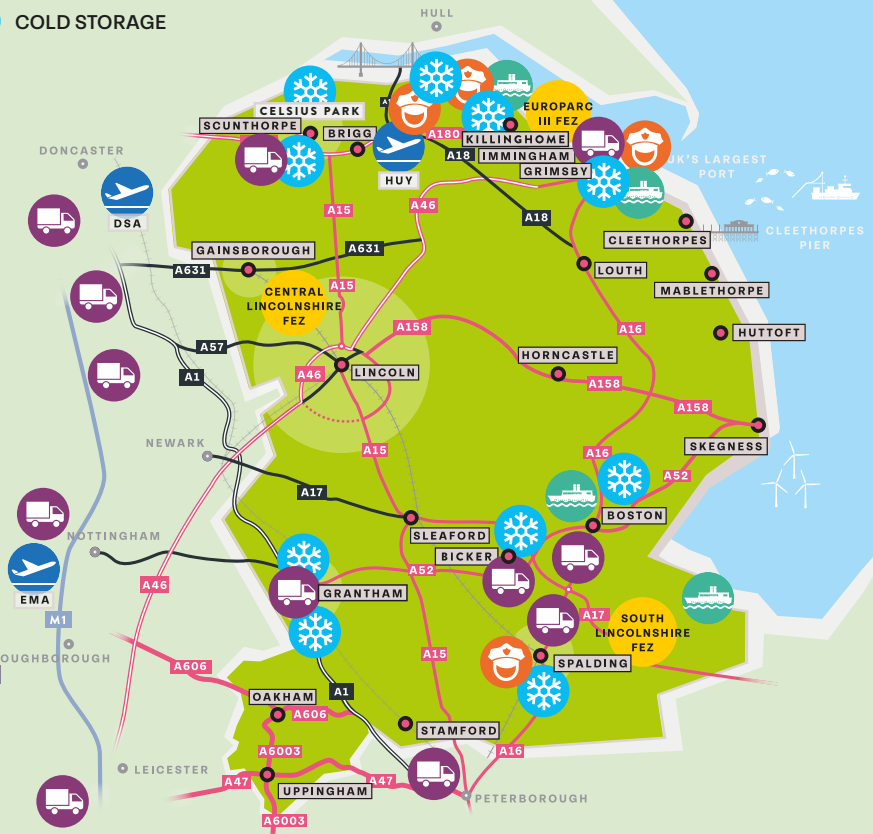
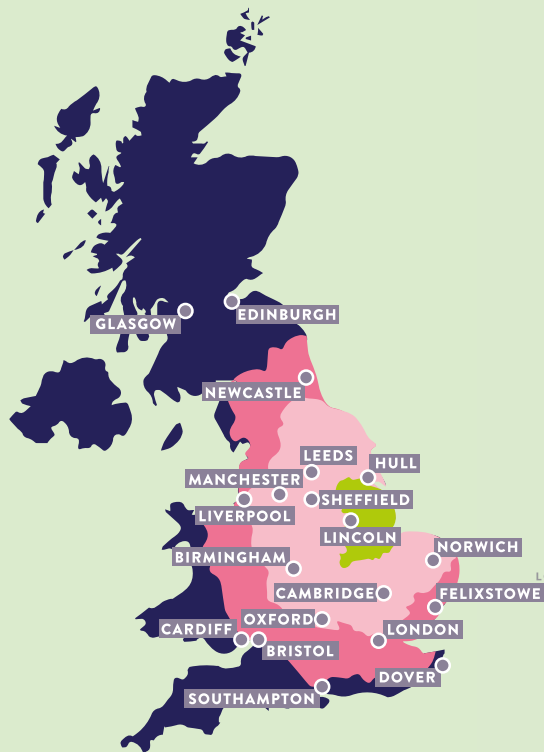
Greater Lincolnshire provides cold chain and logistics businesses with fast, multimodal access to distribution hubs and consumer markets in the UK and worldwide.

HGV Drive Times (from Lincoln)

- GREATER LINCOLNSHIRE LEP AREA
- 3 HOUR HGV DRIVE TIME
- 4.5 HOUR HGV DRIVE TIME (1 DRIVER SHIFT)

Key:

- GREATER LINCOLNSHIRE
- DISTRIBUTION HUBS
- COLD STORAGE
- BORDER CONTROL POST
- FOOD ENTERPRISE ZONE
- PORTS
- AIRPORTS



By Road

Greater Lincolnshire's central Great Britain location (north-south) enables fast access to key Midlands distribution hubs (on the M1 and A1 corridors). More than 75% of the UK's population can be reached within 4 hours' HGV drive time - less than one driver shift.

By Sea

The Humber ports of Immingham and Grimsby offer frequent lo-lo and ro-ro services to European ports, and deep-sea feeder services to global markets. The Port of Boston's ambitious Food Port project, includes a dedicated Centre for Food and Fresh Produce Logistics.

By Rail

The ports of Immingham, Grimsby and Boston are rail freight connected. For business travellers, Greater Lincolnshire also offers fast passenger rail connectivity to destinations across the UK.

By Air

Humberside Airport provides global connectivity via Amsterdam and a temperature-controlled airside Perishables Hub. East Midlands Airport, the UK's largest dedicated air cargo hub, is less than 2 hours' HGV drive time from Spalding.

REFERENCES

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- 5 Green Energy | Greater Lincolnshire LEP
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- 10 UK Food Valley | Greater Lincolnshire LEP
- 11 Lincolnshire Institute of Technology | Technical education | (liot.ac.uk)
- 12 Study with LIAT | University of Lincoln
- 13 Humber Freeport | great.gov.uk international
- 14 Home South Lincolnshire Food Enterprise Zone | southlincolnshirefez.co.uk
- 15 Hemswell Cliff Food Enterprise Zone Local Development Order | Adopted_Redacted.pdf (west-lindsey.gov.uk)

SUPPORT FOR YOUR BUSINESS INVESTMENT

Working together UK Food Valley partner organisations, including local authorities, education providers and businesses, provide dedicated support to ensure a 'soft landing' for companies investing in the area. Contact us to find out how we can support your business relocation or expansion project.

Our services to business include:

- Support in finding the right site or property to lease or buy
- Location, economic and food cluster market intelligence
- Access to workforce recruitment, education and training solutions
- Access to sector specialists
- Access to sector-specific support programmes e.g. for food chain innovation
- Access to local supply chains and business networks
- Access to funding for business investment



Contact Us

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