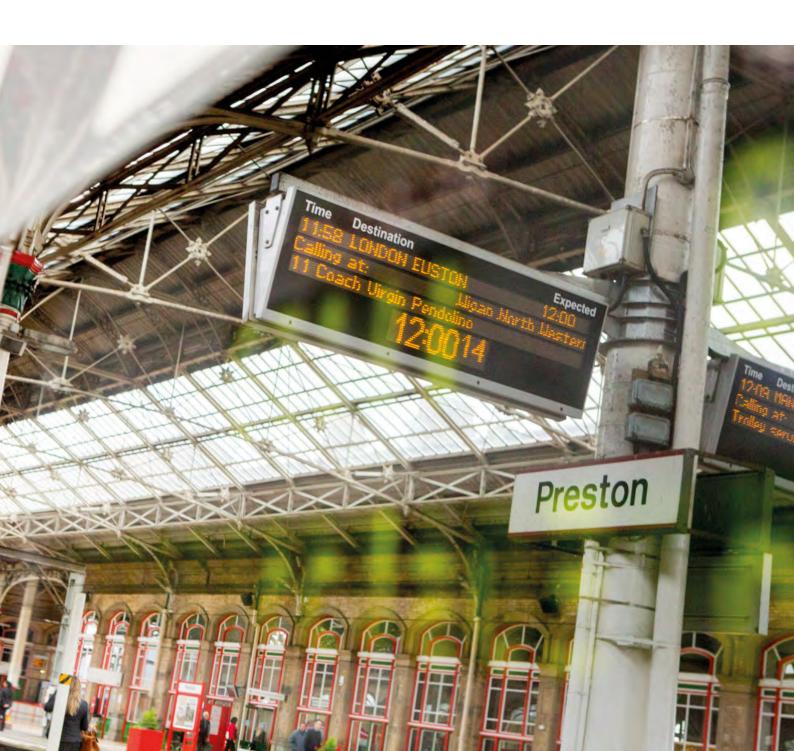


Deep Dive: Internationalisation Strategy for Lancashire

Part of the Lancashire Independent Economic Review





Contents

3	Visi	on					
5	Executive Summary						
7	Introduction						
12	Pillar Analysis - Summary of Approach						
	16	Exports					
	29	Foreign Direct Investment					
	41	Capital Investment					
	5 3	Innovation					
	69	Visitor Economy					
81	Conclusions & Aggregated Analysis						
86	Resource Implications						



Vision for Lancashire's Global Competitive Position

VISION

A new ambition for Internationalisation is set for Lancashire which is fundamental to our continued economic success. The Lancashire Internationalisation Strategy (LIS) confirms that we have the assets, capabilities and opportunities. To compete on a global platform for investment, trade, talent, ideas and visitors.

Our long-term vision is to emulate our city region neighbours in global competitive performance as measured by:

- · Our attractiveness to international investors, visitors, business and academic talent and students;
- · New capital and foreign direct investment, which drives innovation and productivity performance
- Our international cultural and place offer and the propensity of our business base to trade internationally;
- The quality and ease of access and interconnectivity to all places across the UK to maximise the local benefits of Internationalisation across Lancashire's communities.



Why does Lancashire need an Internationalisation Strategy?

Lancashire is the largest economy in the North West outside a city region, a fact often overlooked, as its city region neighbours have secured devolution and more resources. However, growth in the economy has stagnated over the past decade. Lancashire businesses tend to trade less than its neighbours, and levels of foreign direct investment and capital investment are much lower proportionally, than the size of the economy might indicate.

Lancashire's productivity rate was strong in the five years prior to the Covid pandemic, driven specifically by high productivity, innovation and manufacturing led businesses. However, the ratio of available jobs to working age population is 4:5, and without new investment creating high productivity jobs, the Levelling Up agenda will never be delivered. An estimated 80,000 people leave the county to find employment and this costs our economy £4.3bn per annum and 130,000 residents can't find jobs to match their skills. The lockdowns of the pandemic have metered a devastating effect on some sectors more than others such as the visitor economy and civil aerospace.

It's time to do something different – something which drives step-wise change and catalyses growth in the economy and creates good jobs. Something which sets a new ambition and approach to ensure it harnesses the full potential of our assets, resources, skills and industry to create a sustainable, competitive and thriving platform for Lancashire. With UK government policy around Levelling Up, the climate change agenda and the United Nations Sustainable Development Goals we have never been better placed to take advantage of these opportunities.

Internationally active SMEs are three times more likely to introduce products or services that are new to their sector than those that are entirely domestic focused. Foreign-owned companies invest more readily in skills, are more productive, and are far more likely to export. Internationalisation is also a route through which we can translate more of our employment growth into increased productivity.

At a strategic level, this report provides an evidence base for the ways in which Lancashire is already engaged in international activity, as well as a set of activities to further increase internationalisation throughout the county. It informs the development of activities at a county level and within each pillar of activity, through which Lancashire can develop a more outward-facing approach.

These conclusions will draw together evidence and suggested activities from across all pillars in an aggregated analysis of the approach that Lancashire can take from the top down. It will collate the key insights and activities from each pillar to assess where commonalities can be found and where limited resources can be maximised. This will help to reduce duplication of effort as well as promote collaboration between pillars.

Working in partnership with stakeholders and drawing on the evidence base in this strategy we need to seize the moment and ensure that Lancashire delivers on these opportunities.



Executive Summary

Lancashire is an ambitious county with key strengths and assets in Advanced Manufacturing, Energy and Low Carbon technologies, Digital and emerging sectors of cybersecurity and defence, advanced mobility and health innovation. Lancashire will build on these assets and capabilities to become a global player.

This strategy outlines the opportunities for growth across the county's core pillars and sectors going forward.

Lancashire's Strategic Ambitions



Position Lancashire at the forefront of innovation



Build a globally competitive county



Promote the Lancashire brand internationally



Establish Lancashire firmly as a place which attracts and retains talent and investment

Pillar Analysis

The strategy focuses on five core pillars:

- Export navigating the macroeconomic changes to keep Lancashire goods and services competitive
- Foreign Direct Investment highlighting the assets and strengths of the county to overseas companies
- Capital Investment articulating the opportunities for regeneration, infrastructure investment and VC funding
- Innovation building on existing and new collaborative partnerships across sectors
- Visitor Economy placing Lancashire on leisure and business visitors' radars as travel reopens from the pandemic

Aggregated Analysis

The strategy brings together the pillars in an aggregated analysis for economic development across Lancashire as a whole with a focus on:

- Cyber and Digital Services improving resourcing constraints through digitisation of of products and services
- Promotion and Branding improving awareness of Lancashire on the international stage through profile raising and promotional activity
- Collaboration on markets and sectors working with partners and stakeholders across pillars where there are synergies and commonalities
- International networks and partnerships creating meaningful and lasting international partnerships



Opportunities and Challenges

Opportunities

- Lancashire is an ambitious county looking to capitalise on the recent announcement of the National Cyber Force campus and its ambitions for growth on the international stage.
- Lancashire has the opportunity to build on its heritage of manufacturing from the Industrial Revolution to Industry 4.0+.
- Lancashire is home to some of the world's most innovative companies and new sectors are emerging which will drive growth internationally.
- The county has a large and diverse talent pool as well as top class and highly internationalised universities.
- Build international awareness of Lancashire based on the close proximity of Manchester and Liverpool.
- Link internationalisation work with Northern Powerhouse neighbours and the Department of International Trade's Great campaign for trade and investment.

Challenges

- Resources to deliver the Internationalisation Strategy and realise the potential of the Lancashire economy will need to be prioritised.
- There is a need to develop sector propositions in the county's key, niche sub-sectors.
- Supporting Lancashire companies to increase exporting and take advantage of the new Free Trade Agreements.
- Lower than average Level 4+ skills in the working age population.



Introduction Lancashire's Baseline Performance

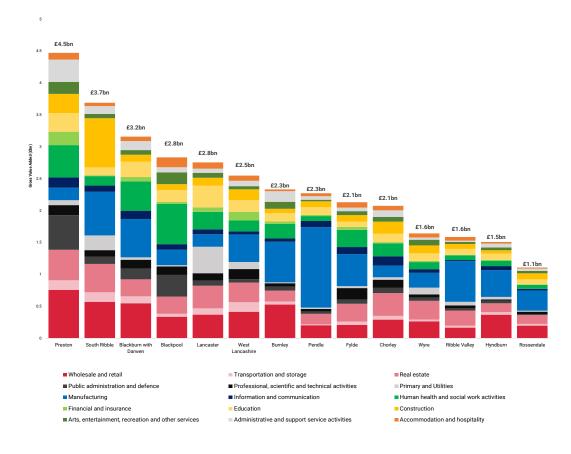
What is the economic make up of Lancashire?

Manufacturing has consistently been the largest sector by output. It was heavily impacted by the recession in 2009 but has grown consistently since then, particularly during the middle of the decade.

Real estate has gradually declined in value, and now overtaken by the wholesale & retail sector, another sector that has grown strongly over recent years – but one which we know has been especially affected by COVID-19.

The value and size of the Health & Social Work and Education sectors have both remained fairly constant, but public administration and defence have seen a clear decline, in line with austerity policies.

Finally, construction has fluctuated over the period, but a general upward trajectory had been seen since 2013.



Source: ONS Regional Accounts data

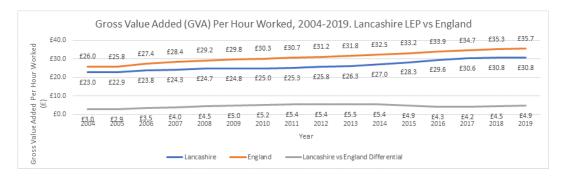


How has Lancashire's economy performed in the last 5 years?

Lancashire's recovery from the financial crisis was slow and variable across the county. However, it has picked up pace in recent years, with productivity in Lancashire growing faster than the national rate since 2015. In fact, goods exports to the EU from the North West were at their highest level in three years in Q2 of 2021. The full impact of EU Exit on Lancashire's economy is harder to judge.

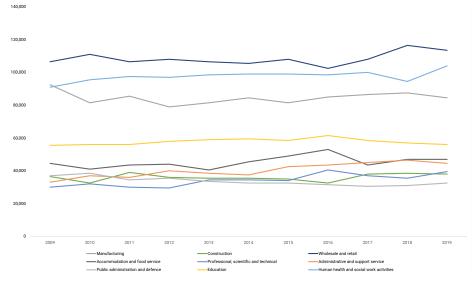
When the pandemic started in spring 2020, Lancashire was heavily affected by COVID-19 with above average case rates and more severe restrictions throughout 2020 than those experienced across most of the country.

With the furlough system taking hold across the UK during the pandemic, Lancashire was significantly impacted. At its highest, 101,900 were furloughed in the LEP are in July 2020. However, recent indications from job numbers show that Lancashire has managed to recover fairly quickly.



Which sectors are the largest employers?

The graph below shows the nine largest sectors, which employed around 84% of the workforce over the period. Wholesale and retail employment has clearly grown, and after an initial drop, employment in manufacturing has steadily grown back. Though smaller, the professional, scientific and technical sector has seen a general growth trend since 2012 – increasing this further is a major part of improving productivity in Lancashire.



Source: ONS Business Register and Employment Survey, Annual Survey of Hours and Earnings, ONS PAYE real time employment data



Strengths and Weaknesses

Lancashire has a strong range of assets which can naturally breed opportunities on the international scale. However, there are some key challenges to overcome to ensure successful implementation of an internationalisation strategy.

Strengths

- Universities of Lancaster, University of Central Lancashire (UCLan), Edge Hill and Cumbria with overseas campuses
- · Location of National Cyber Force
- Innovation assets such as Advanced Manufacturing Research Centre (AMRC) North West,
 Engineering Innovation Centre (EIC), Health Innovation Campus (HIC), Energy Head Quarters
- · A diverse mix of towns and cities
- Four enterprise zones (Blackpool Airport, Hillhouse, Samlesbury and Warton) and the Lancaster University Enterprise Zone for Secure Data
- Prime manufacturers such as BAE Systems, Rolls Royce, Leyland Trucks, Westinghouse and a strong manufacturing SME base
- Strong natural assets 137 miles of coastline, 80% rural and home to Area of Outstanding Natural Beauty in the Forest of Bowland
- · Strong leisure and cultural offer for visitors including the popular seaside resort of Blackpool
- · Destination Management Organisation Marketing Lancashire

Weaknesses

- Lack of resource to implement the Internationalisation strategy and fully exploit Lancashire's potential
- Poor East-West connectivity, despite most people living on this axis hampering talent and businesses accessing companies and markets
- · Number and value of Lancashire exports, proportionately lower
- International links of universities and diverse communities not fully exploited
- No dedicated resource and brand recognized investment promotion agency
- · Lower than average Leve 4+ skills in the working age population



Opportunities and Challenges

Opportunities

- Further development of the North West Cyber Corridor from Manchester to Lancaster, heart of a cluster of cyber, defence and security related assets
- Technical infrastructure Advanced Manufacturing Research Centre North West, Health Innovation Campus and Engineering Innovation Centre and other assets to drive recovery, growth, productivity and innovation
- Revitalised towns and heritage assets
- Major green energy opportunities along with existing nuclear sector and low carbon technologies
 led by innovation and manufacturing
- North Atlantic loop opportunity to boost digital connectivity and resilience
- · Stronger shared governance across Lancashire
- · Eden North, due to open in 2024
- EU Exit new international trade agreements
- Political ambition to agree a County Deal in order to benefit from a devolved authority and additional local resources
- Institute of Technology to be established in 2022 due to a strong collaboration between colleges and universities

Challenges

- Ongoing COVID-19 disruption and recovery to pre-pandemic levels; some sectors more severely impacted than others
- · Lancashire sector propositions to be widely disseminated and understood internationally
- · Neighbours, particularly City Regions have significant resource for internationalization activities
- A poor national and international brand and no high value propositions marketed by Department for International Trade

10-Year Internationalisation Strategy: Approach

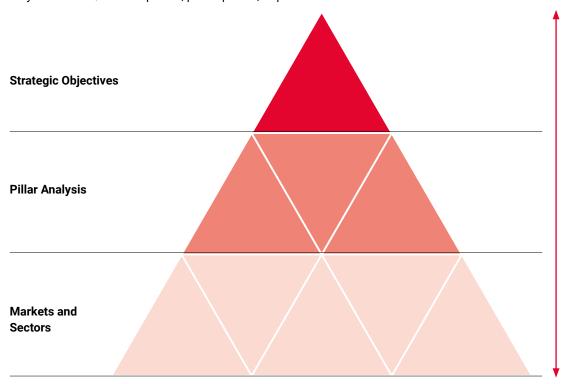
Strategic objectives have driven this internationalisation strategy

This Internationalisation Strategy has been driven by a set of Strategic Objectives. These **strategic objectives** are **ambitious**, **aspirational and focus on a long-term enhancement of Lancashire's international activity.** They are focused on transforming Lancashire into an outward-facing county. The objectives are cross-cutting and applicable to the county as a whole.

Underpinning these broad objectives is a detailed pillar analysis. These analyses evaluate performance for each of Lancashire's **core pillars**; **trade**, **FDI**, **capital investment**, **innovation & the visitor economy through both a domestic and international lens**. They place past and current performance in a regional, national and global context with an emphasis on enhancing Lancashire's position on the international stage.

Moreover, for each pillar, a set of markets and sectors have been assessed. This work highlights the key opportunities as well as some of the trends occurring both locally and globally, placing Lancashire's strengths within a set of international opportunities. These evaluations are also drawn together to provide a pan-Lancashire perspective.

Across all of these layers, there are a set of recommended activities to help achieve the strategic objectives. The recommendations can be thought of as strategic enablers and vary depending on if they are market / sector specific, pillar specific, or pan-Lancashire



11

RECOMMENDED ACTIVITIES



Pillar Analysis: Summary of Approach

Strategic objectives have driven this internationalisation strategy

For the Pillar-by-Pillar analysis, we adopted a structured approach that seeks to provide a baseline understanding of the landscape in Lancashire, placing this in a national and international context, this before articulation a set of specific actions to achieve strategic, outward-facing objectives.

Baseline Analysis

The baseline study aims to understand the past and present situation in Lancashire and on the global stage. For each Pillar, we have assessed:

- · The current and past performance in Lancashire
- · The current services offered to businesses in Lancashire
- · The global context and international performance

Competitor Analysis

Competitors for Lancashire were selected based on two key indicators:

- Alignment of sector strengths and priorities to Lancashire (i.e., strong high-value manufacturing offer, sustainability as focus)
- Overall perception of the location's investment and export activities (i.e., rank in terms of investment performance, export performance)

From here, a benchmark study assessed Lancashire's performance within each Pillar against all, or a selection, of the competitor locations.

Further work drew out some best practice examples occurring within competitor locations, where successful activity around internationalisation has been occurring around the world.

Lancashire and its performance was also compared against its nearest geographic competitors across the Northern Powerhouse region



Stakeholder Consultation

Throughout this project we engaged in consultation with a broad range of stakeholders on a local, national and international level. These consultations were held through one-on-one engagements, workshops or presenting to working groups. A full list of stakeholders consulted can be found in the appendices.

Our broad objectives for this engagement were to understand:

- · Assets and strengths of Lancashire
- · Weaknesses and areas for improvement
- · Perceptions of Lancashire as a location for an international audience
- · Existing international activity in the county

Suggested Priority Sectors

For each Pillar, we have listed the key sectors of focus for Lancashire and, within that, the specific local assets and international opportunities that exist. Sectors align with the priority sectors set out by the LEP and are reinforced by evidence from our baseline research and stakeholder consultation.

Suggested Priority Markets

A set of target markets helps to give any internationalisation strategy focus. Therefore, we have highlighted the key markets for Lancashire to prioritise within each Pillar. These markets have been selected based on a combination of quantitative and qualitative research, including data modelling (more details can be found the appendices), as well as an examination of global trends and Lancashire's existing international relationships.

Strategic Objectives and Suggested Activities

This section sets out what Lancashire could hope to achieve as a result of greater internationalisation and outlines the activities that could be undertaken to help achieve them. It sets out a long term, 10-Year horizon for the strategy with some short to medium-term activities to help catalyse these objectives.



10-Year Internationalisation Strategy: Priority Sectors

Key Sectors

Across the core pillars, the analysis carried out, demonstrated opportunities in each pillar that consistently aligned with priority sectors in Lancashire. As the table below shows, the sectors of digital and cyber security, advanced manufacturing, energy & low carbon aerospace and food & agriculture all had opportunities in almost every pillar*. This demonstrates the importance of coordination between sectors and pillars when delivering the internationalisation plan.

Pillar	Identified opportunity in sector						
Exports	((-1)	₹	3	7	X		
FDI	((-1)	€	3	7	X		
Capital Investment	(1-1)	€	3				*
Innovation	(0)	\$	3	7	X		**

Linkages and specialisms

Three themes which linked opportunities across the pillars and sectors were digitisation, security and sustainability. Digitisation aligns innovation in the digital sector with industry 4.0 developments across manufacturing – a particular strength in Lancashire given the strong manufacturing base and Made Smarter work supported by government.

Security is essential to the protection, productivity and resilience of our communities of people and businesses with assets and capabilities in our biggest sectors of cyber, aerospace and energy. As such it is a cross-cutting theme across pillars and sectors. Emerging areas around secure data, sensors, aerial platforms and geospatial test areas are ideal for internationalisation.

Sustainability is also a theme cross-cutting pillars and sectors as companies look for solutions to industrial decarbonisation and energy efficiency, often supported by new advancements in technology and make a significant contribution to achieving net zero carbon targets.

Alongside these commonalities were sub-sectoral specialisms that provide unique opportunities for the county. These included advanced mobility including satellites and space, advanced nuclear technologies, and cyber security and crime.

* Visitor economy was not included in this part of the analysis as it is both a pillar and a distinct sector



10-Year Internationalisation Strategy: Priority Markets

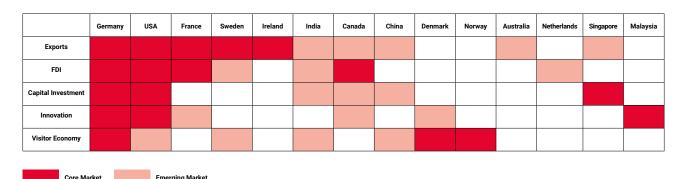
Key Markets

For each pillar, the most important markets were split into two groups, core and emerging.

Core markets were large stable markets that already had relationships with Lancashire and were aligned with strengths in the county. These were immediate targets with the aim of building on existing relationships.

Emerging markets represent a longer-term project of developing relationships in markets and in pillars where specific opportunities exist. The core markets include Germany, USA, France, Ireland and Sweden.

Core and Emerging markets in each pillar



Linkages across pillars

A key draw of markets such as Germany, USA and France is that they have linkages across pillars that allow for a county-wide approach. A further nine markets were identified as core or emerging in some pillars. These represent longer-term opportunities to access fast-growing economies or markets with a strong link to Lancashire's strengths.

Given the resources available, it would be difficult for Lancashire to work with all these markets, therefore a degree of discretion is required for leads in each pillar to identify the best targets. However, this should be agreed across all pillars to identify complementarities and joint working.

The table below shows the spread of core and emerging markets within pillars. It helps identify pillar/market combinations and those that have the greatest potential for cross-pillar activities.



Exports: Internationalisation Strategy

Evidence

Whilst Lancashire has some well-known manufacturing assets, such as Samlesbury, Blackpool Airport and Hillhouse Enterprise Zones, the volume of exports is lower than the national average.

Goods exporting is concentrated in manufacturing with service exports across the board performing well.

Globally, the fastest growing trade sectors are not in sectors or markets which are currently strengths for Lancashire. Goods exports across the UK have declined slightly in value in the past few years and are likely to have been disrupted to a greater extent than services by the pandemic.

EU exit and the pandemic are likely to cause short- and long-term disruption, in particular for long complex supply chains (such as in manufacturing). The USA is the top market for goods and service exports, but the EU is the largest market overall for goods.

Feedback from stakeholders

EU markets still account for the majority of Lancashire companies' goods exports, but they are starting to look into new markets as administration and costs add new burdens to exporting to the EU.

Trade missions are still viewed as important by stakeholders who value the opportunity to explore new markets as part of organised programmes.

There is some confusion amongst exporters on the different types of support available. A more coordinated approach between stakeholders could be beneficial.

A lack of awareness of Lancashire in international markets means that the Lancashire "brand" doesn't have as much impact as more well-known areas of the UK.



What this means

Opportunity to build sector export propositions based on regional strengths in aerospace, energy & low carbon, and advanced manufacturing.

Global Britain is an opportunity to diversify into new markets, but Lancashire will need to prioritise:

- Core markets with current and future opportunity
- Emerging markets with a medium / long term opportunity which will need curating.

Brand building and awareness activity needs to be undertaken to raise the profile of Lancashire exports.

Lancashire manufacturing must both maintain and grow its export capacity and capabilities but also consider how to onshore supply chain activity to build resilience.

New paperwork may mean SMEs are discouraged from continuing and growing goods exports to the EU – they may need advice and guidance.

Suggested Activities

Capability mapping – to understand the specific sector, sub-sector and niche goods & services strengths of Lancashire.

Local Business Support – create a dedicated team with easy-to-access advice and support.

Upskilling Lancashire exporters – companies are provided with the confidence and skills to excel in international markets.

Promoting Lancashire – organisations delivering export services in collaboration to deliver a clear and concise message.

Developing trade corridors – create new opportunities and capitalise on existing relationship and networks.

Events and missions – develop a collaborative calendar of events and missions for Lancashire companies around our priority sectors.

Strategic Outcomes

- Significantly contribute to the UK Government 's £1 trillion export target by 2030.
- Enable 300 new exporters from Lancashire by 2030
- Create 7 trading partnerships with strategic locations in key overseas markets by 2030
- · Raise exports contribution to Lancashire's GDP above the national average of 30% by 2030



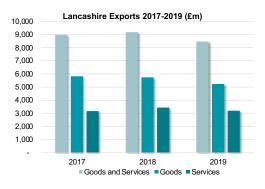
Export Performance: Baseline

Lancashire's trading landscape...

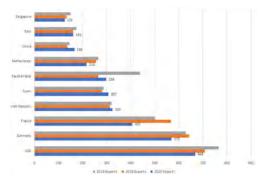
International Trade is vitally important to the growth of the economy and research shows that exporting businesses are more competitive, pay higher wages and are more profitable. Exporting companies in Lancashire, generate over £8bn of revenues from trade each year, with over £5.2 billion in goods and over £3 billion in services. Over 123,000 jobs are supported by exporting companies in the county, especially in the manufacture of textiles, chemicals, rubber, machinery and equipment, motor vehicles and transport equipment. Trade is equally important to the service sector supporting roles in wholesale trade, financial, legal, professional and administrative services.

As a percentage of GDP, the volume of exports from Lancashire is lower than the national average, accounting for only 27.4% of all output, compared to 30.7% in England. However, data on service exports suggests that Lancashire performs strongly, with service exports at 14% of GVA above the North West average (11%) and just below the average in England of 15%.

Looking at the balance of trade (value of exports and the value of imports) and based on Standard International Trade Classification (SITC) definitions, the county punches above it's weight in terms of the export of machinery, transport equipment, chemicals and manufactured goods and articles.



Lancashire's Top 10 export trade partners £m 2018-2020



World of Opportunity

According to a recent Board of Trade publication: "Global Britain, Local Jobs," almost 90% of world growth is expected to be outside the EU over the next 5 years. The future of the global economy lies to the East with 65% of the world's 5.4 billion middle class consumers expected to be in the Asia-Pacific region by 2030. Progressive companies will continue to strengthen links with the USA and Europe and look to capitalise on the new market opportunities.

Lancashire's main export partners continue to be the US, Germany, France and the Republic of Ireland, with six out of the top ten export markets being in the EU. The table left shows growth in trade with China, Spain and the Irish Republic. Companies will need to fully understand the opportunities afforded by the negotiated free trade agreements.

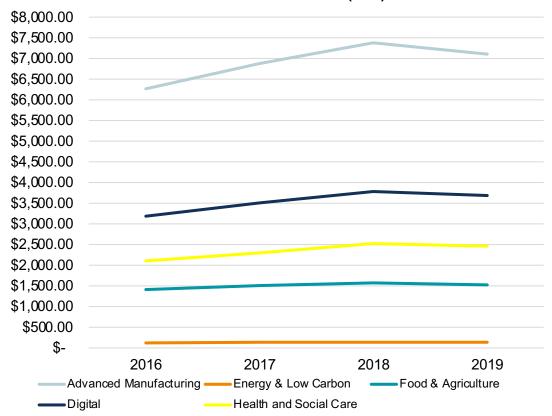
HMRC Regional Trade Data, 2020



Global Picture: Baseline

Global trade has undoubtedly been shaken by major events over the past five years. Particularly for the UK, adjusting to a post-EU world has meant adjusting and adapting existing relationships as well as exploring new ones. The effects of the pandemic since 2020 have had a similarly significant impact with supply-chain disruption globally and many businesses looking to nearshore operations rather than rely on interconnected and international supply-chains. The true impact of these developments are yet to fully play out, and it remains to be seen how international trade will adapt. 2021 has seen double digit recovery figures for trade between more developed nations, but it is smaller economies who are feeling the effects of the pandemic most keenly.







Fastest growing major global economies

(GDP per capita)



With economic growth and increasing demand firmly centred in the Indo-Pacific region in the years leading up to the pandemic, there is no indication that this will change as we enter recovery. The economic centre of gravity is shifting eastward and with it comes a shifting trade focus for countries and businesses alike. Growing incomes in developing countries will naturally lead to an increasing demand for international trade in products, services and expertise. As these trends develop, export strategies should be aware of the growing opportunities outside of traditional trading markets.

At a sectoral level, there is likely to be an increase in service-orientated trade in response to a growing middle-class with increased spending power. Travel services and digital services are forecast to be the two fastest growing sectors in the years up to 2030. In comparison, oil and gas, as well as other less sustainable industries, will decrease in response to the energy transition away from fossil fuels. Likewise, certain manufacturing trade may also see a decline as productivity growth drives down prices and creates lower dollar value outputs. This makes domestic production more cost-effective and reduces the need to import particular products. Whilst there are obviously opportunities in fast growing markets and sectors, they are not currently core strengths in the context of Lancashire's exports, suggesting that a more focused approach on core markets should be taken in the short to medium term. This provides an opportunity to focus attention on identifying new exports in growth sectors and sub-sectors.

Fastest growing international trade sectors

(share of global trade 2019-2030)









Travel Services

Digital Services

Food & Drink

Life Sciences



10-Year Export Strategy: Defining Next Steps

Global Britain is providing new opportunities for exporters but diversifying into new markets will also provide challenges

Global Britain is an opportunity to diversify into new markets; however, there needs to be an awareness that European markets still comprise the majority of goods exports. Knowledge and understanding of the Lancashire offer are also lower outside of European markets which presents a challenge for diversification to new markets.

Therefore, Lancashire will need to prioritise:

- · Starter markets where it is easy to do business especially for new exporters
- Core markets where there is both a current and future opportunity
- · Emerging markets with a medium / long term opportunity which will need curating

There are a number of new and exciting opportunities across the world as the UK signs free trade agreements with a range of countries. Although there may be niche opportunities to explore in these markets, they can often require a greater level of support to access than resourcing will allow Lancashire alone to provide for individual opportunities – particularly if brand building and awareness activity needs to be undertaken to raise the profile of Lancashire exports.

New paperwork may mean SMEs, in particular, are discouraged from continuing and growing goods exports with the EU. This may result in two things: either they look for new markets with easier export processes, or they may need further advice and guidance than ever before to access these markets.

From a services perspective, the USA and markets outside of the EU (excluding Germany) dominate exports. A different approach may need to be taken between supporting goods versus services exports.

Leveraging the Department for International Trade export support could assist with exporters looking to explore new markets, whilst Lancashire focuses support on the core priority markets in the short term.



Export propositions can be built around key regional strengths and assets

There is an opportunity to build sector export propositions based on regional strengths in aerospace, energy & low carbon, advanced manufacturing, food & drink and technology. Further work may need to be done to understand the specific strengths that exist within each of these sectors, for example, leveraging the ElecTech cluster, or the significant dairy industry.

Historically, manufacturing has led the way for Lancashire on the international stage. Lancashire manufacturing must both maintain and grow its export capacity and capabilities but also consider how to onshore supply chain activity to build resilience. The pandemic has reinforced the importance of creating resilience in supply chains, and any export proposition will need to factor this in going forwards.



Click here to read the report



10-Year Export Strategy: Priority Sectors

Assessing the key sectors for export promotion uses a combination of understanding Lancashire's assets, the existing export picture and the global trends & opportunities influencing international trade.

As such, the priority export sectors for Lancashire have been viewed through the lens of the county's key exportable strengths as well as the global trends and opportunities to increase exports from both new and existing exporters. Underpinning these sectors is a move towards greater digitisation and an increased appetite to integrate sustainability into trade practices.

Digitisation, Innovation and Sustainability



Digital and Cyber Security



Advanced Manufacturing



Energy & Low Carbon



Aerospace



Food & Drink



Education



Lancashire's digital and cyber security export proposition

Key exportable strengths

- There are several assets linked to Lancashire's universities such as the cluster of digital and creative businesses linked to Lancaster University.
- Lancashire has renowned expertise in cybersecurity with recent investment in the area as well as the national Centre of Excellence in Cyber Security Research.
- UCLan and Lancaster University are participating with the NCF move to Samlesbury.
- The ElecTech Innovation Cluster is a key digital asset, integrating technology across many industries, that links business, academia and Government.

Opportunities

- ElecTech cluster is a key opportunity with leading capability and an existing network across the UK.
- Med-tech is an emerging sector based on the manufacturing heritage of Lancashire.
- Integrating technology into traditional industries provides an opportunity in less tech-advanced markets. It could also drive collaboration between some of Lancashire's strongest sectors.
- Recent cyber investments set Lancashire out as a world-leader, a reputation that can be enhanced and translated into an export opportunity.





Lancashire's advanced manufacturing export proposition

Key exportable strengths

- Lancashire has a rich history in advanced manufacturing and engineering innovation.
 It has been a historic world leader and a symbol of modern industrialisation throughout the world.
- Lancashire is home to highly international manufacturers across sectors including aerospace, automotive, chemicals, specialist materials, nuclear fuels and textiles. It is the county's leading export sector with the greatest international trade experience.
- Innovation in the industry is fostered in the Samlesbury, Blackpool Airport and Hillhouse Enterprise Zones.

Opportunities

- Leveraging Lancashire's historic and current expertise will resonate well in overseas markets to grow exports.
- Collaborate across sectors to carve out a niche in international supply chains.
- Work closely with key overseas investors and businesses located in major domestics assets such as EZs to understand where supply chain opportunities exist internationally.



Lancashire's energy and low carbon export proposition

Key exportable strengths

- The county leads the way in renewable energy generation capacity in the North West with a specialism in onshore wind.
- Talent and expertise exist in local assets such as the Clean Energy Technology Park, Lancashire Centre for Alternative Technologies, The National Nuclear Laboratory & Advanced Manufacturing Research Centre (AMRC) Low Carbon Building Demonstrator.
- Lancashire Energy HQ is located in Blackpool. It is a £10.7 million facility with a sole aim of preparing and equipping a skilled workforce in the renewable energy sectors.

Opportunities

- Link energy and low carbon to existing sector strengths such as advanced manufacturing, automotive and aerospace. Transitioning capabilities in existing sector strengths rather than develop new ones.
- Lancaster Environment Centre, with internationally leading capability has colocation facilities for industry.
- Export of services and expertise in specific areas such as wind energy and nuclear, with a focus on decommissioning.





Lancashire's aerospace export proposition

Key exportable strengths

- Lancashire is the number 1 employer in the UK aerospace industry with strong capabilities and key companies such as BAE Systems and Rolls Royce.
- Lancashire's aerospace industry is very accustomed to international collaboration. As the UK does not produce any whole aircraft, exported products are part of an international supply chain.
- Home to an abundance of talent within both large and small companies, supplemented by the innovative collaborative environment of Samlesbury Aerospace Enterprise Zone.

Opportunities

- Pivoting from existing capability in aerospace to low carbon aviation and more sustainable focused aero activity.
- Developing overseas relationships with other key aerospace clusters such as Toulouse, Seattle and Singapore.
- Understanding Lancashire's unique capabilities and where these fit into the international supply chain. Leveraging other strengths such as ElecTech and automotive to add value.



Lancashire's food & drink export proposition

Key exportable strengths

- A large employer with experience in both agriculture and food production, as well as food manufacturing.
- Lancashire is home to some of the largest household names in food & drink; PepsiCo, Dr Oetker, Fisherman's Friend, Farmhouse Biscuits, Singleton's Cheese, Stella Artois and Budweiser. There is also a large artisan and luxury food industry in the county.
- Advanced manufacturing capability also lends itself to food production and processing technology and machinery.
- Myerscough College is a leading college for agricultural technology and food manufacturing training.

Opportunities

- Agricultural produce from Lancashire tends to either stay in the county or the UK, produce could be exported for processing in other markets.
- Service exports in food & drink could revolve around food production technology and AgriTech where consultancy services are in high demand globally.
- The export of food manufacturing technology and processing equipment itself could also be a strong opportunity in markets that are yet to fully integrate tech into their supply chain.





Lancashire's education export proposition

Key exportable strengths

- Lancashire has four main universities:
 University of Central Lancashire (UCLan),
 Lancaster University, Edge Hill and Cumbria
 (Lancaster Campus). The universities in the
 region have excellent international relations
 and ground breaking research and teaching
 capabilities.
- Existing relationships include Europe, Asia and the Middle East.
- Innovation Hubs in Health, Engineering, Productivity, Tech and Digital.

Opportunities

- Established further education and vocational offering.
- Assess the existing international academic relationships and look at establishing trade opportunities.
- Innovative university spin-offs and start-ups should be a source of international potential for the region.
- Network of international alumni and existing networks.



Export Plan: Priority Markets

Based on a combination of quantitative and qualitative research, priority export markets have been identified. This was achieved through data modelling work as well as stakeholder consultations, both domestic and international. These markets are aimed to meet demand for both new and experienced exporters, as well as a blend of existing and developing relationships. The starter markets are those in which it is easiest to do business for new exporters, the core markets are those in which there is both an opportunity and existing experience and relationships for exporters. The emerging markets already have some experience but present future opportunities and are markets in which Lancashire could be doing more.

Short Term - Year 1



Medium to Long Term - Year 2



Short Term Markets



Ireland is Lancashire's closest international market and is the easiest overseas market to do business with. It's culture and language are similar to the UK with Lancashire having a large diaspora community creating links to the country. Exports to Ireland are worth £25.2 billion.



France is Lancashire's third largest trading partner and the number one priority market in the aggregated analysis across Pillars. With a strong cluster landscape, there are opportunities for reciprocal trade relationships, particularly in areas such as Toulouse which is home to Aerospace Valley.



Germany is Lancashire's second largest trading partner with exports worth £570 million. It is ranked in the top 5 across all sectors. There are historic trade links with Germany and it is one of the most important markets for aerospace exports. Businesses can also bring expertise in mechanical engineering with Germany's world-renowned manufacturing sector a key opportunity for new innovation.



Sweden is the 10th easiest market to do business with according to the World Bank's Doing Business Report 2020. The export market from Lancashire to Sweden is growing and is worth £64 million.



The USA is Lancashire's number one individual trading partner across both goods and services, as well as being one of the largest markets in the world. However, it is not one homogenous market and individual states have specific requirements which means that exporters need to understand the state requirements that they are exporting or looking to export to.



10-Year Export Strategy: Activities

Activities are plotted against a three year timeline to help with prioritisation. Although the strategic outcomes are targeting a 10-Year strategy, activities will need to be reviewed and refreshed throughout to ensure relevance and keep material up to date.





FDI:

Internationalisation Strategy

Evidence

Foreign Direct Investment is more competitive than ever due to a reduction in activity caused by the COVID-19 pandemic and increased protectionism among governments.

Lancashire had been experiencing growth in FDI projects prior to the global shutdown, with manufacturing accounting for half of all projects.

The US is the largest single investor in Lancashire, although EU countries account for 43% of projects.

FDI in Lancashire tends to be concentrated in four local authorities, Preston, Burnley, Blackburn with Darwen and West Lancashire.

Lancashire has a number of innovation assets directly linked to priority sectors and major projects in the pipeline that will be attractive to investors (Eden North and the National Cyber Force HQ).

A positive trend for the county is that it ranks first in the region for jobs created per project, which suggests an historic strength in attracting larger employers.

Feedback from stakeholders

Stakeholders believed a shift towards new technologies would help attract FDI, in line with sectoral trends around digitisation and innovation for a low carbon future.

Stakeholders would like to see a stronger brand for Lancashire and an assertive strategy to attract investment.

Many stakeholders felt that on balance Manchester and Liverpool, were an asset to use in investment promotion.

Lancashire has virtually no dedicated investment activity nor branded International Promotion Agency such as MIDAS in Manchester. Without some investment in resource, Lancashire's potential will always be stifled.

Compelling sector and high value propositions are not well-developed and existing marketing channels such as websites are not particularly enriched with content.



What this means

Lancashire needs to proactively define its brand, selling this to regional and national partners and actively pursuing potential inward investors.

The innovation assets in Lancashire are a core part of the selling message and need to be linked to marketing messages.

Lancashire has the capability to serve as a testbed for innovation in a number of different sectors including industrial digitisation, low carbon aviation, future flight, low carbon energy, and precision farming.

Upcoming developments such as the Clean Energy Technology Park represent transformative opportunities to develop new clusters that will attract investment. Dedicated resources are required to drive FDI activity and results. Building stronger links with intermediaries, including the Department for International Trade will be critical to success.

Suggested Activities

Work with stakeholders in the region to develop and agree the selling message for Lancashire.

Market the region and selling messages within the Northern Powerhouse and DIT (nationally and internationally within priority markets).

Develop a suite of propositions and case studies on priority sectors and key opportunities in Lancashire.

Attend trade shows and events (either as a county or linked to NPH/DIT) to promote Lancashire and the opportunities.

Organise virtual events or virtual visits to promote key opportunities.

Target companies in relevant sectors and markets.

Account manage existing investors with a view to encouraging expansion.

Extend the Key Account Management Model to cover Foreign Direct Investment.

Strategic Outcomes

- 200 FDI project wins to 2030 depending on resource (new and expansion)
- 2,500 new jobs created over the next 3 years
- 15% of project wins linked to innovation led investment
- · 200 companies targeted per year for investment promotion
- Increased awareness of Lancashire's opportunities from within Northern Power House and the Department for International Trade.



Domestic FDI Performance: Baseline

Lancashire's FDI wins are concentrated in manufacturing sectors

Prior to the Covid pandemic, Lancashire had been experiencing an upswing in FDI into the county, from two projects in 2017 to twenty two in 2019. The Key Account Management programme started in 2018 which partially explains the increase. Traditionally, the county experiences peaks and troughs in the number of successful projects and jobs, so it is unclear if this trend would have continued without the global pandemic.

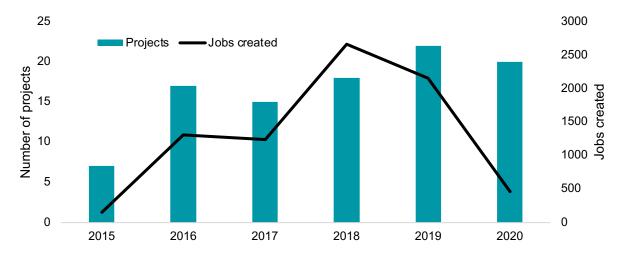
Manufacturing accounted for almost half of the projects, but this was across a broad range of sectors rather than one dominant sector. These included food & drink, aerospace, automotive, chemicals, metals, plastics, textiles and industrial equipment.

The other main activities were logistics, and two investments in offshore R&D showing the potential for higher value activities in the emerging renewable energy sector.

FDI into Lancashire is centred around the larger towns

Two-thirds of all FDI into Lancashire since 2015 has been located in just three local authority areas, Preston, Burnley, and Blackburn with Darwen. It is perhaps not surprising as these areas are more populated and closer to Manchester and Liverpool. This evidence supports the argument that Manchester and Liverpool have a positive effect on FDI into Lancashire.

Projects and jobs into Lancashire 2015-2020



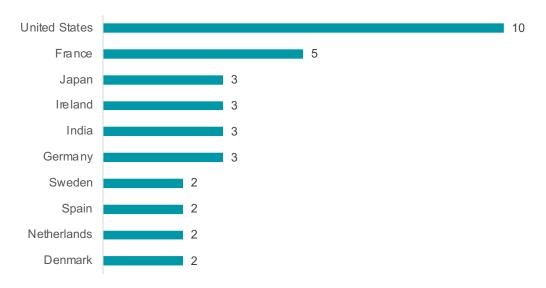


The US is the most important single market for investment, with the EU the largest contributor overall

Companies from thirteen countries have invested in Lancashire in the last ten years, with US based companies accounting for 26% of projects, double the amount of the next largest source, France. EU countries contributed 50% of projects, with France and Ireland the largest contributors, reconfirming the importance of the EU to the Lancashire market.

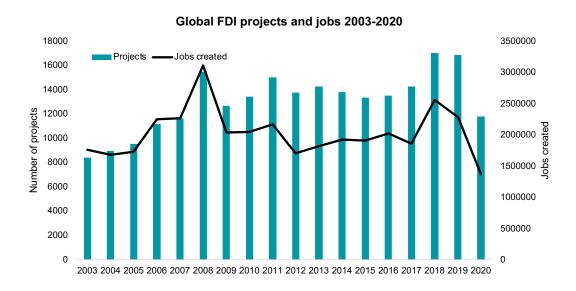
Outside of the US and EU, two Asian markets (India and Japan) are within the five largest sources of FDI and account for 16% of projects between them.

Source markets for FDI by number of projects 2015-2020





Global FDI Performance: Baseline



The recovery of global FDI will take time

Over the last twenty years, FDI has followed a similar trend to the global economy. The early part of the century witnessed strong recovery after the economic shock of the dot.com bubble bursting in 2000, but the global financial crisis of 2008 was to leave a longer shadow.

From 2009 to 2017, the world witnessed slow economic growth in the face of austerity, and the number of FDI projects remained below the high of 2008, with jobs affected even more.

Hopes of a potential recovery in 2018 were quickly dashed by the global pandemic and shutdowns. In 2020, the number of FDI projects decreased by 30% from 2019, with the number of jobs created down by 40%.

Global forecasts for FDI flows suggest the current trough is expected to bottom out in 2021 and recover some lost ground with an increase of 10–15% from 2020. This would still leave FDI some 25% below the 2019 level.

Post pandemic economic self-interest amongst nations is expected to lead to a more tightly regulated FDI landscape. Protected industries will extend from historically sensitive ones in defence and energy, to food & drink, medicine and all data rich sectors.

The reduction in global FDI activity creates a more competitive environment as there are fewer projects to go around. Recovery will be dependent on health policy and access to vaccinations.

Covid exposed the vulnerability of global supply chains and companies are looking to reduce risk through investment closer to their customer base. There is likely to be growing interest in re-shoring or near-shoring.

Source: UNCTAD (2021) Global Investment Report



10-Year FDI Strategy: Defining Next Steps



Lancashire has potential to be a testbed for innovative investment

Lancashire has the capability to serve as a testbed for innovation in a number of different sectors including industrial digitisation, low carbon aviation, future flight, low carbon energy, geospatial test areas and precision farming. This links directly to the innovation pillar where collaborative opportunities exist to transition traditional industries into innovative ones and recognised the strong skills and education on offer in Lancashire.

The innovation assets in Lancashire are a core part of the selling message and need to be linked to marketing messages. Assets such as the Lancaster University Health Innovation Campus are primed to attract innovative investment in the life sciences and healthcare sectors.

A targeted approach to investment attraction

In order to take a more targeted approach to investment attraction, understanding the specific assets that Lancashire has is key. Likewise, understanding international supply chains and how Lancashire could fit into these on a local level will also provide critical information in supporting investment attraction.

Therefore, Lancashire will need to prioritise:

- Core markets where there is both a current and future opportunity
- Emerging markets with a medium / long term opportunity which will need curating

Where possible, taking advantage of the Department for International Trade support will be important to reduce the resourcing burden for investment staff in Lancashire. However, there also needs to be a set of specific Lancashire objectives and targets to focus on. It is clear that Lancashire receives less in terms of resource, support and funding than other regions in the UK. An important part of furthering an investment strategy will be to campaign for funding. However, it will also be to distinguish the areas in which Lancashire can maximise local resource by differing support and activities to the Department for International Trade and Northern Power House colleagues.

Recent developments provide opportunities for significant investment

Upcoming developments such as Eden North and the National Cyber Force HQ represent transformative opportunities to develop new clusters that will attract investment. Particularly the recent investments in cybersecurity have paved the way for Lancashire to become a global leader. This will in turn lead to greater awareness on the international stage, making attracting investment easier.

As such, Lancashire needs to be proactive in defining its brand and investment assets, selling this to regional and national partners, and actively pursuing potential investors. The Lancashire brand is not necessarily well-known to international investors so a more aggressive and independent marketing strategy will be key to attracting new investment.



10-Year FDI Strategy: Priority Sectors

KEY FDI SECTORS

Digitisation, Innovation and Sustainability



Digital (Cybersecurity & Emerging Tech



Advanced Manufacturing



Energy & Low Carbon



Aerospace



Food & Drink



Lancashire's digital FDI proposition (cybersecurity)

Key investment strengths

- Lancaster University is one of only five universities in the UK to gain NCSC recognition as a Gold Academic Centre of Excellence in Cyber Security Education.
- New National Cyber Force (NCF) HQ is a £5bn investment that demonstrates government confidence in the county's capabilities and talent around cybersecurity.
- Lancaster University is involved in Lancashire Cyber Foundry, a government backed initiative to help SMEs explore and develop new cyber security technologies.
- Lancashire Careers Hub and employers inspiring young people in schools and colleges to encourage careers in digital and cyber security, building the talent pipeline.

Opportunities

- Promote the Cyber Security Corridor between Manchester and Lancaster Universities, encouraging expansion of existing investors out of Manchester along this corridor.
- The NCF have a remit to work with companies and this will attract investors into the county.
- Digital industrialisation within the large manufacturing base requires strong cybersecurity capabilities along the supply chain and can be promoted as a local digital specialism.





Lancashire's digital FDI proposition (emerging tech)

Key investment strengths

- Tech sector forecast to outstrip local economy by 3X up to 2028.
- 15,000 professionals working specifically within software and software development.
- Digital innovation ecosystem supporting development of future flight and mobility.
- The ElecTech Innovation Cluster is a key digital asset, integrating technology across many industries that links business, academia and Government.
- Lancaster University School of Computing and Communications ranked 6th in the UK for computer science and IT.

Opportunities

- Opportunities for digital innovators to work with major industrial players to develop new manufacturing technologies within digital testbeds.
- Opportunities for innovative businesses to provide solutions for data rich companies looking to increase productivity.
- Opportunities for AI companies to capitalise on Lancashire businesses looking to streamline operations.
- Development of **future flight** and other **advanced mobility** requires digital innovation.



Lancashire's advanced manufacturing FDI proposition

Key investment strengths

- Second highest concentration of manufacturing in the UK.
- · Strong track record of attracting investment.
- Advance Manufacturing Research Centre NW and Engineering Innovation Centre.
- Electech Innovation Cluster.
- 5G Factory of the Future and Made Smarter pilot projects.
- Experience integrating technologies into new platforms such as the Tempest Future Combat Air System.

Opportunities

- Digital testbeds the shift towards digitisation has been slow in manufacturing and there remains opportunities to work with leading companies on new innovations.
- Market seeking the strong manufacturing base creates a market for new technologies and presents an opportunity for supply chain companies to be close to their customers.
 Opportunities exist in MedTech and renewable energy manufacturing which also align with wider UK government priorities.





Lancashire's energy and low carbon FDI proposition

Key investment strengths

- Lancashire produces 30% of the UK's low carbon electricity.
- Strong offshore industry that has previously attracted FDI in R&D related activities. The Port of Heysham is a key supply base for operations and maintenance.
- · Eden North development.
- Clean Energy Technology Park & Lancashire Centre for Alternative Technologies.
- AMRC Low Carbon Building Demonstrator.
- Low Carbon Technology Business Support and Skills Academy will upskill workers for new economy.
- Lancaster University's Centre for Global Eco-Innovation.
- Lancashire Energy HQ on Blackpool Airport Enterprise Zone.

Opportunities

- Working with the wider Nuclear industry in the North of England.
- Government funding for small modular reactors in Lancashire.
- Large manufacturing base looking to develop more sustainable and resource efficient practices.
- Establish demonstrator sites and enable new technologies to be developed, demonstrated and commercialised.
- Eden North can be an anchor investment to build a sustainability cluster.



Lancashire's aerospace FDI proposition

Key investment strengths

- 500 aerospace businesses active in the county.
- #1 for aerospace jobs in the UK in a single LEP (17,000)
- Advanced Manufacturing Research Centre NW and Engineering Innovation Centre.
- 5G Factory of the Future and Made Smarter projects.
- · 2 Enterprise Zones with operational airstrips.
- Lancashire Drone Innovation Zone.

Opportunities

- · Low carbon aviation innovation.
- Digitisation of existing supply chains.
- · Expansions from current investors.
- Participation in international programmes such as Tempest Future Combat Air System provides access to global innovation and manufacturing networks.
- Emerging drone technology can link to other sectors such as offshore energy, nuclear, and food production.
- Blackpool Airport as a test bed for new mobility solutions.





Lancashire's food & drink FDI proposition

Key investment strengths

- One of the largest manufacturing sectors in Lancashire.
- The county has previously attracted investment in food manufacturing and R&D for new product development.
- Food & Farming Innovation Centre (Myerscough College).
- · Engineering Innovation Centre.
- Lancashire Drone Innovation Zone.
- The sector links to both advanced manufacturing and low carbon & energy, providing opportunities for cross sector working.

Opportunities

- Market seeking opportunity challenges around employment are encouraging producers to invest in new machinery for increased productivity.
- Opportunities around low carbon and circular economy farming solutions.
- Precision farming innovation linked with drone developments.
- New food product development.



10-Year FDI Strategy: Priority Markets

The data modelling provided a long-list of countries that could be considered high and medium value potential markets for investment attraction. The next stage was to refine this to a feasible number given the resources available and to ensure that target markets represented a strategic mix of large stable opportunities, highly innovative markets, and longer-term opportunities in emerging markets. Core markets are the highest scoring markets in this pillar from the data modelling that have strengths across sectors, while emerging markets scored lower on the data modelling but have specific advantages that can be aligned to Lancashire. We acknowledge that there is limited resource and as such, 7 markets may be too many to tackle at once. We propose a further prioritisation in which initially certain markets are focused on in the short-term and then another set focused on in the medium- to long-term.

Short Term - Year 1



Medium to Long Term - Year 2



Focus Markets



The USA is Lancashire's number one source market for FDI. It is also a major investment market globally with interests in multiple sectors. US sector interests align with Lancashire's across most key sectors.



France is Lancashire's second largest source market for FDI. They are also a leading player across all pillars in Lancashire. More broadly, they are one of the largest investors into the UK for key Lancashire sectors: aerospace, advanced manufacturing and energy.



Germany is not a large source market for FDI in Lancashire; however, they are for the rest of the UK, suggesting a potential missed opportunity. They are a global leader in energy transition, industrial equipment, and digital start-ups. Germany is now taking an increasingly important position in the European aeronautical sector with R&D expenditure now greater than France.



There are several major Canadian investors in Lancashire. Increased appetite for overseas investment has led to Canada being a fast-growing source of FDI into Europe. Opportunities linked to innovation in aerospace, health, food and low carbon are particularly relevant and align with Lancashire's strengths.



10-Year FDI Strategy: Activities

Activities are plotted against a three year timeline to help with prioritisation. Although the strategic outcomes are targeting a 10-Year strategy, activities will need to be reviewed and refreshed throughout to ensure relevance and keep material up to date.





Capital Investment: Internationalisation Strategy

Evidence

The overall trend shows private equity investment is growing in Lancashire, in line with global trends for the last ten years.

The North West has one of the best private equity markets in the UK outside of London, although this is mainly in Manchester.

Most private equity investment into the UK goes to London and the South East, with regions typically relying on investment from within their region.

Global trends forecast a boom in infrastructure private equity, with finance for sustainable infrastructure already accelerating significantly in 2020.

London is one of the leading centres for green finance depth and quality, with £55bn of responsible investment funds managed.

Three of the largest sectors for private equity include financial services, communications and plastics.

Feedback from stakeholders

Stakeholders were most likely to discuss major infrastructure projects in Lancashire as a potential opportunity for international investors.

A significant proportion of infrastructure investment is led by central government, and stakeholders wanted to see increased lobbying for projects in the region.

An increase in private equity growth capital is most likely to happen if there is more investment in the start-up ecosystem.



What this means

Alongside attracting international investors, Lancashire should seek to work more closely with Manchester and London.

The county's plan for a low carbon transition is likely to need a proportion of private financing. As a global centre for green finance, London provides links to institutional investors and sovereign wealth funds.

Major infrastructure projects (Blackpool Central) or development projects (Eden North) are potential opportunities for investment.

Attracting more central government infrastructure projects will raise the profile of the county among infrastructure investors.

Outperformance in IT and healthcare investment should drive sector focus.

Suggested Activities

Ensure all major infrastructure and development projects in the region are **shared and stored centrally.**

Develop closer links with finance ecosystems in Manchester and London.

Develop a Lancashire Capital Investment Prospectus that demonstrates the business case for future opportunities alongside projections for return on investment.

Align capital investment activity with the FDI pillar to take part in relevant outbound missions and events.

Identify and target institutional investors most interested in the large capital projects within the Lancashire pipeline.

Identify and target private equity firms with an investment strategy linked to priority markets.

Strategic Outcomes

- · Increase visibility of the capital investment ecosystem in Lancashire.
- 15% increase in private equity investment in Lancashire companies.
- More towns included in central government funding such as the Levelling Up Fund.
- · Lancashire projects receiving public and private funding for low carbon initiatives.
- Increase in infrastructure investment coming from private sector investors.



43

Global Capital Investment Performance: Baseline

Private equity investments are growing globally

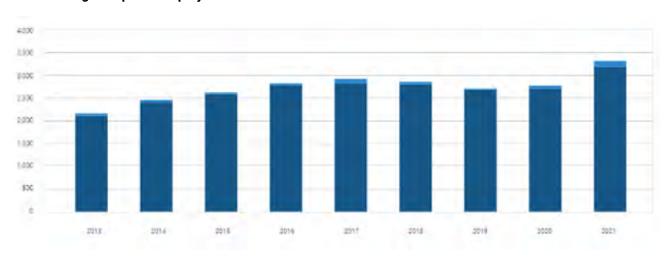
Private equity deals up to December 2021 show investment has risen above pre-pandemic years, and 2021 has witnessed the most projects, circa 3,250 and most capital invested in the last ten years, circa £140bn.

The ten year trend in deal numbers has been growth up to 2017, followed by a small decline to 2020, and recovery in 2021. This may be due to investors becoming more active after the global shutdown as data on values suggests that the investment started to pick up in 2020 after a dip in 2019.

By examining the investment area of focus, which can often span across industries, it is possible to identify which areas are attracting investment. In this case technology, media and telecoms was the largest area of focus, followed by industrials, manufacturing, oil & gas, infrastructure and CleanTech.

The underlying trend in numbers and values for the past ten years is one of growth, and this suggests there will be opportunities for companies in Lancashire to attract private equity investment in the future.

Number of global private equity deals





Green finance can support the low carbon transition

The shift to a low carbon future will require significant investment, a fact that financial services companies have been quick to appreciate and identify as a new market. Data for the period 2016-2020 shows that the market for green bonds accelerated dramatically in 2020, in line with multiple government promises to 'build back better' and include sustainability in future infrastructure.

The four largest uses for these bonds in 2020 were renewable energy, green buildings, access to essential services and clean transportation.

The Global Green Finance Index has consistently ranked London as one of the leading centres for green finance depth and quality, with £55bn of responsible investment funds managed in the UK in 2020. The city represents a key multiplier in the infrastructure investment market and would be a useful route to market for Lancashire.

Global trends forecast a boom in infrastructure private equity

Infrastructure private equity resembles any other type of private equity in that firms raise capital from outside investors and then use that capital to invest in assets, operate them, and eventually sell them to earn a high return. The exception is that infrastructure private equity firms invest in essential utilities, real estate or services that typically serve a public good.

Current global conditions and government priorities suggest the infrastructure private equity industry will experience a boom over the next few years due to;

- · Remote working has created demand for homes and infrastructure.
- Growing market demand for electric vehicles and heat pumps will increase demand for renewable energy sources.
- Governments and asset owners are increasingly focused on the resilience of their infrastructure to climate and weather-related risks.
- Increasing demand for data usage and 5G is driving investment in telecoms infrastructure, with telecommunications operators looking to partner with specialised infrastructure investors.



Global Capital Investment Performance: Baseline

Global investments are predominantly coming from the USA and China with a focus on Creative & Digital and Health

- The largest sectors for investment are Advanced Manufacturing, Creative & Digital and Health, although this will include a degree of overlap between Advanced Manufacturing and Digital due to the industrial digitalisation.
- · The US is the dominant market across nearly all sectors, often by a considerable margin.
- · The one exception is Advanced Manufacturing where the US is second to China.
- China is also a strong market for Digital, Energy & Low Carbon, and Health where it is second only to the US and well ahead of other markets.
- Outside of the US and China, the UK is well positioned as a market for Private Equity across most pillars, typically outperforming other EU markets.

Value of Private Equity deals by market and sector (2016-2020 - \$bn)

	Advanced Manufacturing	Digital	Energy & Low Carbon	Food and Agriculture	Health	Visitor Economy	Total
United Kingdom	38.9	28.4	12.3	2.8	10.6	0.60	93.6
United States	122.8	97.3	36	6.6	67	6.15	335.85
Canada	18.7	9.1	4	5.8	11.1	0.04	48.74
Germany	35.1	14.2	8	3.3	13.6	0.02	74.22
France	15.1	11.6	4	0.3	8.2	0.2	39.4
Netherlands	8.4	5.7	2	1.3	4.6	1.7	23.7
Italy	10.9	6	1	0.01	4.9	0.05	22.86
China	130.1	87.1	18	2	22.7	0.8	260.7
Singapore	6.9	12.1	2	0.4	0.6	0.04	22.04
Japan	12.8	11.5	2	0.01	4.9	0.3	31.51
India	28.2	25.9	4	2.2	8.8	0.4	69.5
Sweden	0.3	6.2	1	0.3	5.8	0.04	13.64
Finland	6.2	4.1	1	0.01	4.5	0.01	15.82
Denmark	6.6	3	0.2	0.01	4	0.01	13.82
Norway	9.7	1.7	1.5	0.2	0.7	0.01	13.81

Source: Pitchbook database 2021 (for consistency with other data, the above figures cover private equity deals involving growth/expansion funding, equity deals, investor buy out and GP stakes.



10-Year Capital Investment Strategy: Defining Next Steps

Low carbon transition in Lancashire will require investment

Alongside attracting international investors, Lancashire should seek to work more closely with Manchester and London as links to capital investment. The county's plan for a low carbon transition is likely to need a proportion of private financing. As a global centre for green finance, London provides links to institutional investors and sovereign wealth funds.

Likewise, a targeted approach should be taken to seeking capital investment that focuses on markets, and within those markets, investment sources that are prioritising low carbon investments. This applies across Lancashire's key sectors, from both a large capital and growth capital perspective. Likewise, outperformance in IT and healthcare investment should drive sector focus.

Therefore, Lancashire will need to prioritise investment attraction in key sectors across:

- · Core markets where there is both a current and future opportunity
- Emerging markets with a medium / long term opportunity which will need curating

Global investment trends suggest that capital investment is becoming more prevalent and developing a targeted approach to attracting this capital will ensure Lancashire receives its fair share of this pot.

Major infrastructure projects (Blackpool Central) or development projects (Eden North) are potential opportunities for investment. Raising the profile of these investment opportunities in international markets will be key to ensuring that capital is raised to fully support them.

Beyond large capital, Lancashire is also a prime target for venture capital and private equity investment. Growing innovation in the county is opening the door for investors looking for start-ups or SMEs to invest in at an early stage.

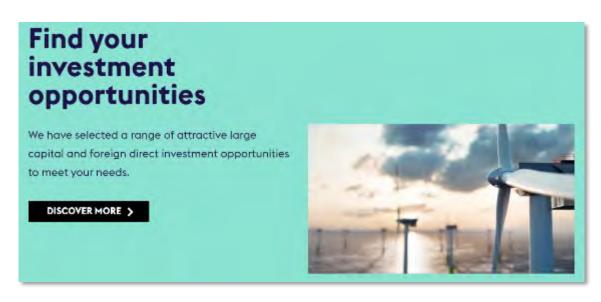


Using national platforms will be important to attracting capital

Attracting more central government infrastructure projects will raise the profile of the county among infrastructure investors. Working with central government to understand opportunities will be important.

Likewise, being able to flag investment opportunities through national platforms to an international audience is important to raise profile and the Department for International Trade's awareness. Currently, Lancashire has no investment opportunities listed on Investment Opportunity database.

Understanding how to get projects requiring investment listed on this database is a key way to drive more investment. Working with the Department for International Trade colleagues will help assess eligibility requirements.



The Department for International Trade's Investment Opportunity database lists capital investment opportunities currently existing in the UK for overseas investors



10-Year Capital Investment Strategy: Priority Sectors

Private equity investments target sectors and verticals

Identifying the most valuable sectors for private capital in each region is complicated by the fact that the investment potential of one sector may actually be caused by its enabling capacity in another sector. For example, investment in technology such as Artificial Intelligence can revolutionise industrial production.

While acknowledging this issue of imperfect definitions, it was still possible to conduct more detailed research on each sector in the key markets identified by the data modelling.

In a survey of 500 institutional investors, technology and healthcare were the two sectors the majority of respondents believed would outperform the market average and therefore the most likely to receive investment. Other strong sectors included communication services, consumer products, energy and financials. Industrials were of less interest to investors, but this is likely to be because the opportunity is in the digitisation of manufacturing rather than manufacturing itself.

Combining this analysis with historic investment trends discussed earlier, it is possible to align priority sectors in Lancashire with investor priorities. Although a slightly subjective judgement, the most likely areas for investment include:



Digital



Advanced Manufacturing



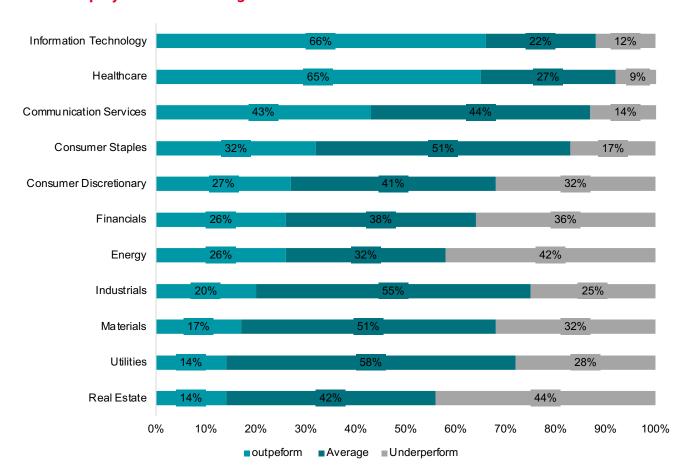
Energy & Low Carbon



Health



Private equity investments target sectors and verticals





10-Year Capital Investment Strategy: Priority Sectors

Infrastructure private equity can be attracted to new infrastructure plans in Lancashire

Foreign capital investment in infrastructure into the UK is broken down into real estate, and energy & infrastructure. Opportunities revolve around the UK infrastructure pipeline, government initiatives, local government development plans, housing development, and private developer projects.

Examples include:

- The UK national infrastructure and construction pipeline is forecast at £650bn of public and private infrastructure investment across the country over the next decade.
- Levelling Up Fund is a £4.8bn government programme to invest in infrastructure that improves
 everyday life across the UK, including regenerating town centres and high streets, upgrading local
 transport, and investing in cultural and heritage assets. The first round of applications announced
 in October 2021 includes £46m for new projects in Lancashire.
- Decarbonisation of transport including funding for zero emissions flight infrastructure and R&D, £12bn for local transport systems, and £90m for electric vehicle infrastructure.
- The "Getting Building Fund" will provide £900m to deliver jobs, skills and infrastructure across the
 country. This investment is being targeted in areas facing the biggest economic challenges as a
 result of the pandemic. It is supporting the delivery of shovel-ready infrastructure projects, agreed
 with mayors and Local Enterprise Partnerships to boost economic growth and fuel local recovery
 and jobs.

Examples of projects in Lancashire are provided below and listed by investment type (regeneration, transport, tourism, and social infrastructure). These are a good match with the main capital investment themes emerging from the stakeholder consultation.

REGENERATION

- Blackpool Central (£300m)
- Colne Town Centre regeneration £6.5m
- National Cyber Force Corridor

TRANSPORT

- Burnley Railway Station Accessibility Improvements
 - (£19m as part of a package with public realm and college investments)
- Blackpool tram extension and transport interchange

TOURISM

- Eden North (£125m)
- 4* hotel at Blackpool North station

SOCIAL INFRASTRUCTURE

- Burnley Campus Expansion
 - (£19m as part of a package with public realm and railway improvements)
- Blackpool affordable housing with the pro-active assistance to developers



10-Year Capital Investment Strategy: Priority Markets

Data modelling identified that the leading countries for capital investment closely matched those identified for inward investment. This is unsurprising given the similarities in priority sectors and that multinational companies and private equity investors are looking for the same thing – strong stable markets and innovative ecosystems. The emerging markets represent the global economic shift to the East and are three of the most common markets that the UK works with in Asia for capital investment. We acknowledge that there is limited resource and as such, 6 markets may be too many to tackle at once. We propose a further prioritisation in which initially Germany, Singapore and the USA are focused upon in the short term, with Canada, India and China having a more medium to long term focus.

Short Term - Year 1



Medium to Long Term - Year 2



Focus Markets



Globally, the USA is the largest source of capital investment. It is also one of the largest investors in the UK and North West in terms of large capital investment as well as growth capital such as Venture Capital and Private Equity funding. A lot of the current priority sectors for US investors also align with Lancashire's priorities.



Germany has high investment figures across creative & digital as well as health, two areas in which Lancashire is focusing innovation energy for further investment. Within Germany are two of Europe's largest capital investment hubs in Berlin and Frankfurt.

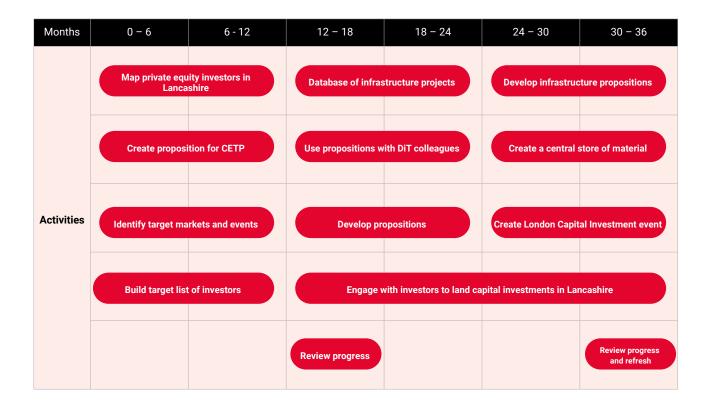


Singapore typifies the rise of capital investment in Asia and is trying to make itself the Silicon Valley of the East by investing in and collaborating with companies around the world. It is also a financial services hub which acts as the investment arm for many Asian funds.



10-Year Capital Investment Strategy: Activities

Activities are plotted against a three year timeline to help with prioritisation. Although the strategic outcomes are targeting a 10-Year strategy, activities will need to be reviewed and refreshed throughout to ensure relevance and keep material up to date.





Innovation: Internationalisation Strategy

Evidence

Innovation assets in Lancashire are a mix of specialist centres (e.g., Clean Energy Park, Lancashire University's Health Innovation Campus) and multi-sector Centres of Excellence (e.g., Advanced Manufacturing Research Centre NW and UCLan's Engineering Innovation Centre).

The recently announced National Cyber Force HQ in Samlesbury is expected to develop strong opportunities for Lancaster University and UCLan to develop UK and international partnerships.

Lancashire receives significantly less funding from UK Research 7 Innovation funding compared to other Northern Power House locations.

China, India and Hong Kong are currently key inbound student markets for Higher Education, but other key centres in Malaysia, Cyprus, Germany, Hong Kong and the Middle East have provided key opportunities for Transnational Education (TNE).

Feedback from stakeholders

There was positivity around the range of innovation assets in Lancashire but also a belief that success is dependent on more support and investment from government.

Stakeholders felt the county should build on the expertise that already exists, although they warned of being too dependent on the large multi-nationals who might move elsewhere.

Universities were seen as key players due to their centres of excellence, entrepreneurial work, and international connections.

Suggestions for improving the innovation ecosystem included innovation mapping, better marketing materials, innovation road maps, more events locally to put greater focus on start-ups/ innovation and programme support for organisations to work collaboratively on Lancashire innovation priorities.



What this means

Lancashire is able to provide a thematic approach to innovation that solves problems across sectors. This is more relevant to modern, interconnected economies.

Lancashire has the capability to serve as a testbed for innovation in a number of different sectors. These could be used to develop a national/international reputation for expertise in areas such as industrial digitisation, low carbon aviation, future flight, low carbon energy and precision farming. This should involve a combination of businesses, academia and enterprise.

Innovate UK funding data suggests that commercialisation of research in Lancashire is behind other competitor locations such as Sheffield. Linking to the capital investment pillar could help attract investment.

Suggested Activities

Work with all stakeholders in the Lancashire innovation ecosystem to agree strategic priorities aligned with core themes (low carbon) or technologies (cybersecurity).

Greater government lobbying to attract more R&D funding.

Develop an Innovation Map for Lancashire that can be used to promote the county and shared with Investment Pillar.

Missions to develop innovation partnerships with new markets around education and research

Conferences and events in Lancashire to increase attention of the county to local, national and international funders, research organisations and companies.

Targeted campaign to attract students, companies and research organisations to Lancashire.

Link to Capital investment pillar to secure more private investment / Innovate UK funding for commercialisation of research.

Strategic Outcomes

- Lancashire to be recognised as the UK's leading innovation region in security and resilience eg
 through NCF with cyber-security and through the Clean Energy Technology Park with nuclear
 clean tech.
- A 20% increase in UK Research & Innovation and other related funding which will underpin innovation relationships, clusters and growth (Wellcome Foundation and Bill Gates Foundation etc).
- Development of a roadmap for the county that levers knowledge networks, bringing together innovation stakeholders with an international specialisation for each of the four Missions.
- Innovation partnership initiatives established with two key foreign markets to support FDI, Exports and Equity Investment in our four missions areas, alongside UK Research & Innovation funding, our four universities (and their foreign campuses) and key corporates with bases in Lancashire.



Domestic Innovation Performance: Baseline

Collaborative innovation ecosystems are a strength in Lancashire

Innovation underpins prosperity in Lancashire, whether it is improving the quality of life for citizens or supporting trade and investment. As the world transitions to a lower carbon, more digital future, it is areas with strong innovation ecosystems that will be most in demand internationally. While big cities are typically seen as the first port of call, it is often smaller areas with strong collaboration between academia, multiple sectors and government that are the most attractive to investors looking to test and commercialise an innovation.

Priority markets for innovation were identified by data modelling that combined: qualitative analysis on Lancashire's innovation assets; assessment of international priorities of higher education institutions; and monitoring global trends in sustainability, digitisation and health that are driving demand for innovation.

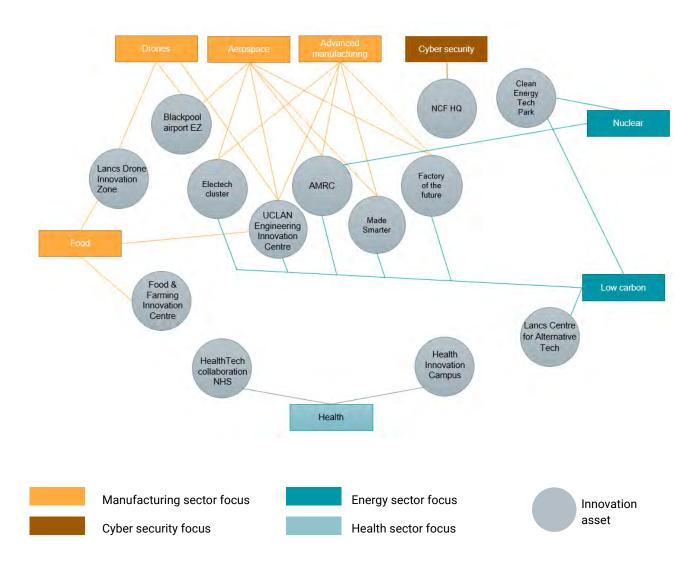
The diagram highlights some of the main innovation assets in Lancashire and how they link to sectors and trends. It shows a core strength in technology and manufacturing/engineering that can be applied across multiple sectors. This is based around the Advanced Manufacturing Research Centre NW, UCLan's Engineering Innovation Centre, a strong ElecTech cluster and pilot projects associated with Made Smarter and Factory of the Future. Alongside this, research centres and collaborations in nuclear technology, low carbon, food, and new mobility provide more specialist opportunities.

There is also a MedTech cluster emerging around health innovation assets such as Lancaster University's Health Innovation Campus and collaborations between the NHS and businesses that enable creation, development, spread and adoption of technological innovations.

The recently announced National Cyber Force HQ in Samlesbury is expected to develop a strong cybersecurity, defence, security related assets and digital cluster along a Cyber Corridor stretching from Manchester University to Lancaster University. This will be an additional innovation asset in the county that will provide links to UK and international partnerships.



Innovation assets link to multiple sectors in Lancashire





Domestic Innovation Performance: Baseline

Higher education links Lancashire to the world

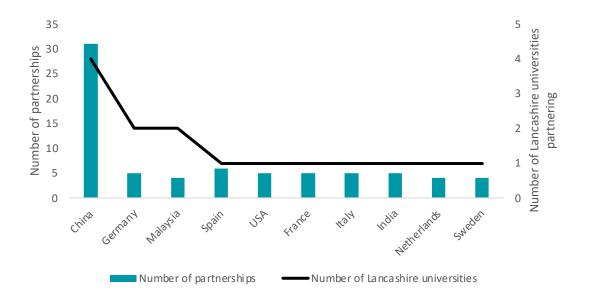
More than half of international students in Lancashire come from China, India or Hong Kong. This is consistent with information from university stakeholders who described these markets as their most important markets now and going forward. Malaysia was another key market for the universities, and it currently lies 16th, with growth expected thanks to the link between Lancaster University and Sunway University in Kuala Lumpur.

The European Union accounts for nine of the top 15 countries for international students, but these students combined are less than either China or India. Of the other countries that make the top 15, Africa is represented by Nigeria, and the Middle East is represented by Saudi Arabia and the United Arab Emirates.

The United States, which plays an important economic role in the county, was ranked 20th with 95 students, similar to its North American neighbour Canada with 90 students.

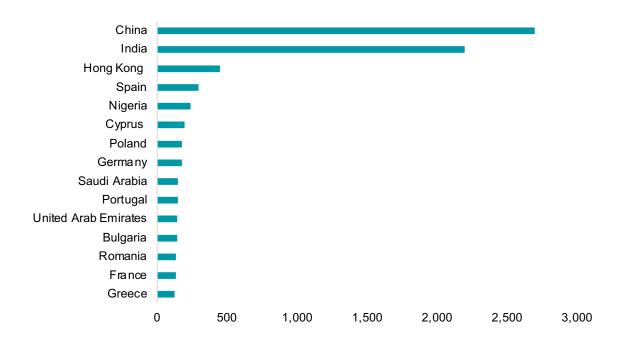
Lancashire Universities have five overseas campus's in China, Cyprus, Germany, Ghana and Malaysia with opportunities to capitalise on these relationships in terms of international collaborations, links to businesses, access to a wide talent pipeline and the visitor economy.

University partnerships by country and number of Lancashire universities involved





Top 15 countries for International Students in Lancashire



China is by far the most important market for universities in Lancashire. All the universities have links to China, and there are more than 30 partnerships or Access and Articulation Programmes linking Lancashire to Chinese students. Both the University of Central Lancashire (UCLan) and Lancaster University have founded prestigious Joint Schools in the country.

Germany and Malaysia are the other countries where more than one university is currently active, while the most partnerships outside China are with Spain, US, France and Italy.

It is interesting that while India supplies such a large student population, there are limited relationships between institutions. This was a theme that emerged during consultation, with India being recognised as a future area of interest for universities.



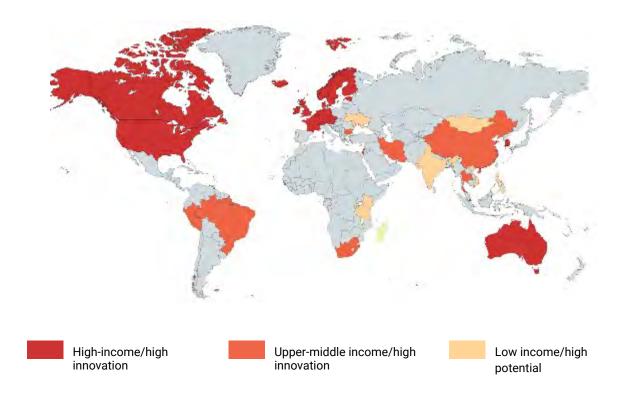
Global Picture: Baseline

Innovation is forecast to prove resilient to global pandemic

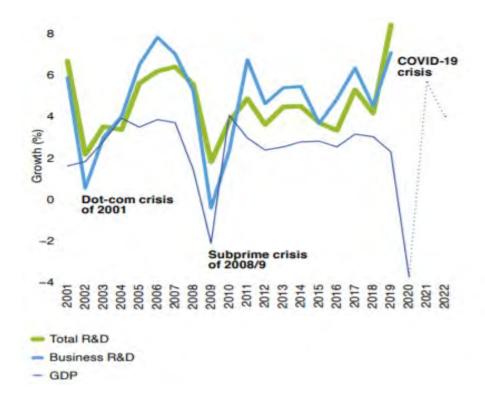
Global R&D spend has consistently outgrown economic growth (GDP) for most of this century. Prior to the global pandemic it had reached an all-time high of 8.5% compared to only 2.4% GDP growth. The economies spending the highest proportion of GDP on innovation were the US, China, Japan, Germany and South Korea. These have been the highest spending countries since 2011.

Current insights suggest innovation will prove resilient to the impact of the pandemic. While levels of investment are below the record figures of 2019, they will remain strong. Due to the importance of innovation in dealing with the pandemic, government policies towards building back better, and current data do not indicate any pronounced decline in investment.

At a sectoral level, those industries that stood to gain from shifts towards more online and health related activities tended to increase their R&D spending, while those that were hardest hit (tourism, aerospace, automotive) tended to reduce their investment. However, future transitions in energy and low carbon transport are likely to accelerate a number of these sectors in the forthcoming years.







Some emerging economies are performing above expectations for innovation

Innovation performance in 2021 shows countries that have performed above expectations given their level of development (categories seen to the left). For high-income countries, high achievers include North America, Western/Northern Europe, South Korea and Australia. For the upper-middle income group, China, Thailand, South Africa and Brazil stood out.

Areas of untapped potential for innovation links are the high performing countries from lower income groups. These include important Asian markets in India, Vietnam, and the Philippines, as well as emerging African economies in Kenya and Rwanda.



10-Year Innovation Strategy: Defining Next Steps

A collaborative approach between stakeholders is key to driving innovation

Lancashire has the capability to serve as a testbed for innovation in a number of different sectors. These could be used to develop a national/international reputation for expertise in areas such as industrial digitisation, low carbon aviation, future flight, low carbon energy, geospatial test area and precision farming. This should involve a combination of business, academia and enterprise and work across pillars from investment to exports.

Likewise, it can be inferred from Innovate UK funding that the commercialisation of research is behind other competitor locations such as Sheffield. Linking to the capital investment pillar could help attract innovative activity along with utilising the links between Advanced Manufacturing Research Centre Sheffield and the Advanced Manufacturing Research Centre NW. Ensuring that the funding landscape is set up for innovative companies, whether they are large companies undertaking R&D or smaller start-ups and SMEs.

Existing assets should be leveraged where possible to build collaborative relationships

Given the links between Lancashire's universities and academic institutions it makes sense to leverage these links. Lancaster University has partnerships with universities in Malaysia and China, as well as campuses in Germany and Ghana. This is not including numerous collaborative projects around the world. has 15 international partnerships including in the USA and Malaysia UCLan Cyprus is working to be recognised as a world-class, research-led University, competing successfully and sustainably within a national and international market.

Edge Hill University and the University of Cumbria have engaged in over 70 international research collaborations.

There are also international partnerships to be considered from some of Lancashire's major companies such as BAE Systems and Rolls Royce.

Therefore, Lancashire will need to prioritise:

- Core markets where there are existing links and relationships as well as tangible and actionable opportunities.
- Emerging markets where there may be links as well as potential for growth in collaborative opportunities.





Lancaster University has a partnership with Sunway University, Malaysia



UCLan also has a partnership in Malaysia with SEGi University



10-Year Innovation Strategy: Priority Sectors







Advanced Manufacturing



Energy & Low Carbon



Aerospace



Food & Drink



Health



Lancashire's digital innovation proposition

Key investment strengths

Cybersecurity

- Lancaster Cyber Security Centre of Excellence, is an internationally renowned multi-disciplinary hub and testbed for cyber security R&D.
- Lancaster University is one of only five universities in the UK to gain NCSC recognition as a Gold Academic Centre of Excellence in Cyber Security Education.
- New National Cyber Force (NCF) HQ is a £5bn investment that demonstrates government confidence in the county's capabilities and talent around cybersecurity.

Emerging Tech

- Privately funded ElecTech Innovation cluster inspires collaboration across sectors.
- £100m+ invested in high-tech collaboration hubs across Lancashire.

Opportunities

Cybersecurity

- Develop links with clusters internationally who are operating in offensive cyber activities.
- Longer term, promote the county as having a niche expertise in cybersecurity for supply chains and industrial digitisation.

Emerging Tech

- Promote enterprise zones as links to specialist innovation ecosystems with additional tax & incentives benefits.
- Opportunities for cross sector collaboration.





Lancashire's advanced manufacturing innovation proposition

Key investment strengths

- Large existing manufacturing cluster looking for innovation and upgrades.
- Rapid growth in emerging tech utilising 5G, Unmanned Aerial Vehicles, High Altitude Pseudo satellites, Secure Data Comms, Future Mobility and Cleantech.
- Advanced Manufacturing Research Centre NW, Engineering Innovation Centre, InfoLab at Lancaster University.
- 5G Factory of the Future and Made Smarter pilot projects.
- The only UK region with four Enterprise Zones and a University Enterprise Zone.

Opportunities

- Opportunities to connect Innovation assets within universities and Centres of Excellence in other countries (linked to investment pillar).
- Promote Made Smarter programme to show the county is at the cutting edge of industrial digitisation.
- Growth areas in emerging industrial tech including CNC, robotics, additive manufacturing, precision engineering, Virtual Reality and digital twins, low carbon solutions, MedTech and intralogistics.
- Warton Enterprise Zone is a prime site for Combat Aerial Vehicle and other Future Mobility R&D.



Lancashire's energy and low carbon innovation proposition

Key investment strengths

- Significant strengths in renewables, nuclear, and other energy supply industries which are complemented by a flourishing engineering and technology sector.
- One of the largest concentrations of environmental researchers in Europe at the Lancaster Environment Centre.
- Lancaster University's Centre for Global Eco-Innovation.
- Strong offshore industry that has previously attracted FDI in R&D related activities.
- The Clean Energy Technology Park.
- Lancashire Centre for Alternative Technologies.
- Advanced Manufacturing Research Centre Low Carbon Building Demonstrator.

Opportunities

- Working across international Nuclear industry.
- Government funding for small modular reactors in Lancashire.
- Opportunities to establish infrastructure and demonstrator sites that enable new technologies to be developed, demonstrated and commercialised.
- Link with existing companies such as Rolls-Royce who are aiming to become net-zero by 2030, and enable sectors it sells to in becoming net-zero by 2050.
- Connecting with Irish Sea Rim super cluster for energy resources.





Lancashire's aerospace innovation proposition

Key investment strengths

- Leading global players and supply chains in the county.
- Advanced Manufacturing Research Centre NW, UCLan's Engineering Innovation Centre, Lancaster Universities new Engineering Department investment and the Quantum Technology Centre.
- £3m funding secured in 2020 for commercial drone technologies. Test facilities suited to Space Cluster technology.
- Crossover technologies in nuclear sector.
- Electech cluster, positioning, navigation and timing technology.
- Blackpool Enterprise Zone, Warton Enterprise Zone.

Opportunities

- Opportunities to work with leading players in the aerospace sector to develop low carbon aviation solutions.
- Participation in international programmes such as Tempest Future Combat Air System provides access to global innovation networks.
- Emerging drone technology can be applied across multiple sectors such as offshore energy, nuclear, and food production Surveillance and comms.
- Warton EZ and Blackpool Airport as a sandbox/test bed for new mobility solutions.



Lancashire's food & drink innovation proposition

Key investment strengths

- Food & Farming Innovation Centre (Myerscough College).
- Lancaster Environment Centre has internationally leading experience and labs addressing soil and cultivation.
- · Engineering Innovation Centre UCLan.
- Lancashire Drone Innovation Zone and precision farming/sensing.
- The sector links to both advanced manufacturing and low carbon & energy providing opportunities for cross sector working.
- Links to health and social innovation, health analytics and preventative medicine.

Opportunities

- Opportunities to work with centres of excellence in agriculture who are working on solutions around low carbon and circular economy farming solutions.
- Precision farming innovation linked with sensors and drone developments.
- New food product development and automation.





Lancashire's health innovation proposition

Key investment strengths

- Health Innovation Campus creates strong collaborative environment between research and practice.
- Healthtech collaborations between and NHS Trusts (eg Neuro-Rehabilitation Online).
- Diverse population and high levels of health risk provide useful populations for clinical trials
- Post Covid surge in market for infection prevention and control aligns with local companies innovating in this sector.
- Crossover with nuclear and medicine, the Clean Energy Technology Park houses a National Nuclear Laboratory facility developing isotopes for alpha therapy.

Opportunities

- The local population allows the county to become a testbed for innovations developed elsewhere that lack a diverse population for thorough testing.
- Growing trends around MedTech and big data allow for cross sector collaboration.
- Developing reusable/recyclable Personal Protective Equipment is a international opportunity that could involve cutting edge science combined with the county's traditional in textiles, paper and materials manufacturing.
- Nuclear medicine unique facilities and expertise.



10-Year Innovation Strategy: Priority Markets

Data modelling identified that the leading countries for investment based on R&D expenditure and incentives, patents, graduates, university rankings, and positions on the Global Innovation Index. This was followed by qualitative research that assessed the strengths of the highest ranked markets in sectors and technologies that were most relevant to Lancashire's innovation priorities and had strong internationalisation links to the universities. Core markets are the highest scoring markets in this pillar from the data modelling that have strengths across sectors, while emerging markets scored lower on the data modelling but have specific advantages that can be aligned to Lancashire. We acknowledge that there is limited resource and as such, 6 markets may be too many to tackle at once. We propose a further prioritisation in which initially Germany, Malaysia and the USA are focused upon in the short term, with Canada, France and Denmark having a more medium to long term focus.

Short Term - Year 1





Medium to Long Term - Year 2



Focus Markets



The USA is a global leader in most sectors of relevance to Lancashire. The new US Infrastructure Bill prioritises clean energy and investing in demonstration projects and research hubs for next generation technologies like advanced nuclear reactors, carbon capture, and clean hydrogen. US stakeholders are currently working with UK on nuclear research.



Germany is taking an increasingly important position in the European aeronautical R&D sector. As a global manufacturing hub, Germany is home to major players in Industry 4.0. Strategic partnership opportunities exist with Lancaster University's Leipzig campus.

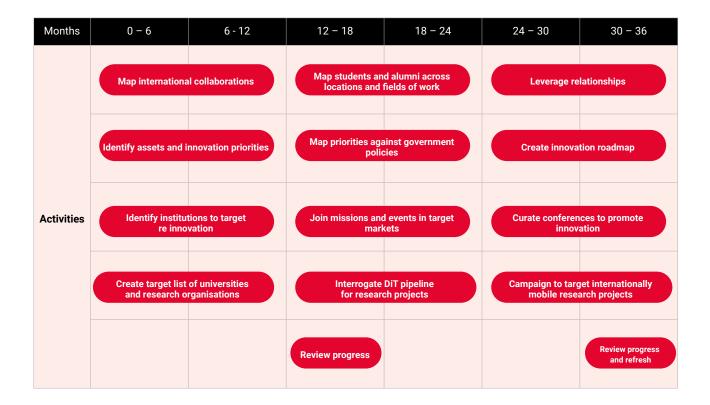


Malaysia is emerging as an innovative power in Asia. Lancaster University has a strategic partnership with Sunway University, with joint research initiative on future cities. Lancashire has a relationship with leading health investor iGene who have already invested in the county.



10-Year Innovation Strategy: Activities

Activities are plotted against a three year timeline to help with prioritisation. Although the strategic outcomes are targeting a 10-Year strategy, activities will need to be reviewed and refreshed throughout to ensure relevance and keep material up to date.





Visitor Economy: Internationalisation Strategy

Evidence

Lancashire has historically had a strong visitor economy offer, primarily through tourism but equally with the strategic location close to Manchester, Liverpool, the Lake District, and on a major route to Scotland.

Blackpool is still by far Lancashire's top visitor destination, accounting for around a quarter of all visits to the county.

Although Lancashire represents around 0.6% of all international visitors to the UK, the proportion of total nights stayed is nearer 1%.

The United States and Australia contributed the largest number of visitors in 2019.

Across total visits, nights and spend by international visitors between 2015-2019, Lancashire has a consistent 6% share of the total North of England market.

Feedback from stakeholders

From a domestic perspective, one of the major hurdles is the perception of key destinations such as Blackpool as one of decline.

Not only does Lancashire have proximity to Manchester and Liverpool as a major benefit, but it is also on a direct train line between London and Scotland. Working with other locations to create a joined-up tourism or visitor offer could help leverage these transport links.

Several international stakeholders mentioned football as a major influencer for their knowledge and perception of the North West of England and the UK more broadly.

For international audiences, individual city names such as Blackpool and Lancaster seemed to resonate more than the county name of Lancashire.



What this means

Support offered to the visitor economy over the past few years has been dominated by supporting domestic businesses impacted by the COVID-19 pandemic.

The combined impact of the pandemic and EU exit has created ongoing recruitment challenges for the sector.

The focus has shifted away from overseas markets as international travel has been heavily disrupted.

This calls for continuity from the programmes that were in operation prior to the pandemic. Therefore, the set of target markets leverages existing schemes as well as large diaspora populations in the county and markets with high outbound visitor numbers.

An initial focus should be given to short haul markets as travel links with these countries are more likely to resume sooner than long haul markets.

Suggested Activities

Increase collaboration links with capital investment teams operating in Lancashire.

Adopting specific activities for individual markets as visitors from individual countries are distinct and respond to different approaches.

Increasing the number of national schemes
Lancashire is involved in can help to maximise
local resource on targeted activities.

Raising awareness and building a greater profile in target markets will help turn existing branding work into international material.

Adopt a targeted approach to business tourism with more national and international events, conferences and trade shows hosted in Lancashire.

Foster a talent pipeline in conjunction with the Lancashire Skills and Employment Hub.

Strategic Outcomes

- To attract an additional 6.3 million visits of which an increased proportion come from international visitors (from 0.05% to 1%).
- To attract a greater share of international visitors to the North into Lancashire (from 6% to15%).
- · Increase business visits to Lancashire by 15%.
- Drive an additional £650m of visitor spend and create an extra 5,000 jobs in the visitor economy.



Visitor Economy: Baseline Performance

Lancashire has maintained over a quarter of a million international visits for the past 5 years

Lancashire has historically had a strong visitor economy offer, primarily through tourism but equally with the strategic location close to Manchester, Liverpool, the Lake District, and on a major route to Scotland. Lancashire also has a diverse visitor economy offer, with a combination of coast, countryside, and historic towns. This is combined with good connectivity and infrastructure to other parts of the UK and relatively easy access from international airports in London, Manchester and Liverpool.



One of the key considerations has been how to leverage these assets outside of Lancashire to grow the visitor economy. There appears to be a need to develop a stronger unique identity for the tourism offer, set apart from other locations in the UK. Flagship attractions such as Blackpool are suffering from an image crisis and as such have experienced consistently declining visitor levels in recent years.

Total visits from overseas to Lancashire has consistently remained between 250,000 to 330,000 per year for the past 5 years. This accounts for approximately 0.6% of all overseas trips to the UK.



Visitor Economy: Baseline Performance

Lancashire has a larger share of the national picture in terms of nights stayed and total spend

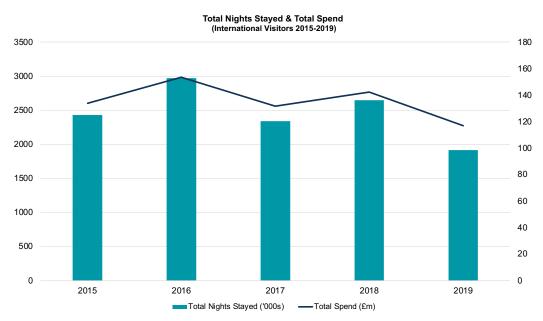
Total nights stayed from international visitors decreased in 2019 to under 2 million for the first time since 2010. This was in line with total nights spent across England which fell by 0.6%.

Although Lancashire represents around 0.6% of all international visitors to the UK, the proportion of total nights stayed is nearer 1%. This indicates visitors to Lancashire are more likely to stay longer than other UK destinations.

Total spend also dropped in 2019, in line with total visitors and nights stayed. It has consistently been between £120 million and £160 million for the past 5 years which shows the significant value add that international visitors have on the visitor and wider economy.

Decline in the national picture in 2019 has also been reflected in Lancashire. This is most likely linked to EU Exit, with uncertainty and developments in the exit process reducing the number of EU visitors. Gradual emigration will have also reduced the number of friends and family visitors from EU countries.

In terms of the most popular tourist destinations in Lancashire, Blackpool, Lancaster and Preston led the way. Despite falling visitor numbers, Blackpool is still by far Lancashire's top visitor destination, accounting for around a quarter of all visits to the county. The majority of visitors to these destinations seem to be day visitors with around 10-15% staying the night. With a total economic impact of £1.6 billion on Blackpool's economy, the importance of the visitor economy to the city is clear. It is a high employing, value creating industry for the local area.





Visitor Economy: Lancashire's Assets

Lancashire has a broad range of assets, covering both leisure and business tourism. There are also opportunities to leverage existing visitor programmes as well as Lancashire's diaspora to drive international visitors.

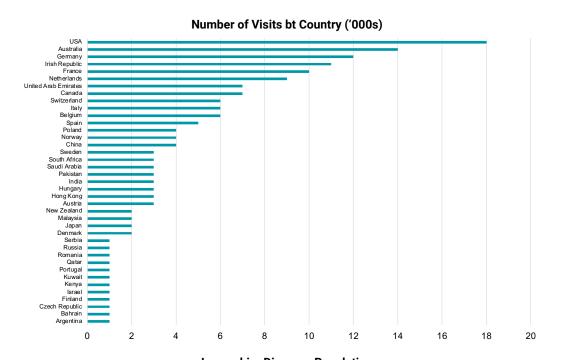
Location	Category	Opportunity		
Blackpool	Leisure / Business Tourism	 Historical centre of tourism for the county with resorts, Blackpool Tower, Illuminations, Winter Gardens. Tired image provides an opportunity for Blackpool to re-brand in line with regeneration opportunities. Blackpool Central and Showtown aim to be the flagbearers for Blackpool's leisure regeneration. Significant investment has resulted in a growing business tourism offer. Blackpool will hosted its first political party conference in 15 years in the spring of 2022. 		
Morecambe	Leisure Tourism	 Suffering from similar issues to Blackpool, regeneration and rebranding provide opportunities for this coastal town. Morecambe Bay is an attractive destination for walkers and ecologists alike. There are also links with Lancashire University through marine research. See Eden North. 		
Lytham St. Annes	Leisure Tourism	 Golf courses and ties to the historic Open Championship will resonate well with international visitors looking to play prestigious golf courses. 		
Lancaster	Leisure Tourism	 A historic city that is part of the England's Historic Cities initiative which was designed to grow tourism from the US market. 		
Universities Leisure / Business Tourism		 There are a large number of international students in Lancashire's universities (Edge Hill ~150, Lancaster ~5,000, ~4,350). This international student population can be leveraged to bring in friends and family visitors from overseas. The key is ensuring that they come to Lancashire and stay to contribute to the visitor economy. Business tourism can also be grown through the international business links held by the universities, to host events or conferences that would draw an international audience. 		
Diaspora	Leisure / Business Tourism	 With strong diaspora communities (Pakistan, Poland, India & Ireland) there is opportunity for friends and family visitors to come to Lancashire and spend in the visitor economy. Business ties between countries with large diaspora populations can be leveraged for trade, investment and business related visits. 		
Post-industrial towns and cities (Blackburn, Burnley and Preston)	 Leisure / Business Tourism Leisure tourism opportunities such as Crow Wood in Burnley, cultural assets like Blac Cathedral and the Harris Museum, and events such as the National Festival of Makin Textile Biennial, and Lancashire Encounters. Given the other leisure assets in the county, a greater focus could be given to driving business tourism into these business hubs. 			
Eden North	Leisure Tourism	This could have an impact not only on Morecambe and the immediate surrounding area but the wider county, to further position Lancashire as a leader in sustainability and ecology.		
Rural areas and countryside (Forest of Bowland, Pendle Hill, Arnside and Silverdale and the Ribble Valley)	Leisure Tourism	 Within these areas there are some of the best destination spas and natural assets in England, as well as a strong heritage offer. These assets need to be promoted better to an international audience who may be unaware of this relative to more widely known areas such as the nearby Lake District. 		

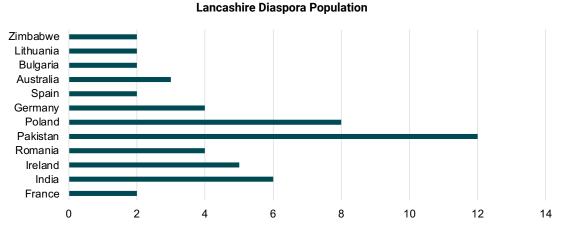


Visitor Economy: Baseline Performance

The United States and Australia contributed the largest number of visitors in 2019, perhaps surprising that two long-haul markets had such large contributions compared to short-haul European markets. A major reason for the United States' high visitor numbers could be attributed to England's Historic Cities programme for which Lancaster is one of the key cities.

Numbers in large diaspora markets such as Pakistan and India were perhaps lower than expected. This may represent an opportunity around friends and family visits - the key will be how these visitors can further add value in the visitor economy. Likewise, large international student populations in Lancashire from China and India are not well represented indicating another potential opportunity linked to friends and family visiting students in the county.







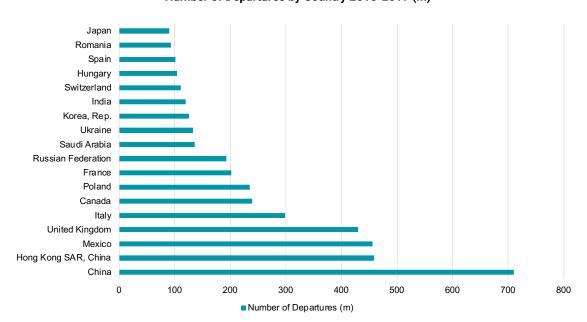
Global Visitor Performance: Baseline

China has consistently had the highest number of departures over the past five years

Over the past five years, China has dominated the international visitor landscape with over 700 million departures between 2015 and 2019. The size of the market and the increasing independence of Chinese tourists beyond organised tour packages provides a clear opportunity to attract some of the substantial numbers to Lancashire. One of the factors to monitor will be Chinese appetite for international travel post-pandemic and whether this trend returns to pre-pandemic levels.

This World Bank dataset does not include the United States. However, US sources indicate that there are roughly 75 million outbound visits from the USA each year, also making this a significant market of focus. Key diaspora markets, India, Poland and Romania, also feature in the top visitors across this period. As well as short-haul European markets such as France and Italy. The UK features towards the top of this list, but it will be interesting to monitor the change in preferences from international to domestic post-pandemic.

Number of Departures by Country 2015-2019 (m)

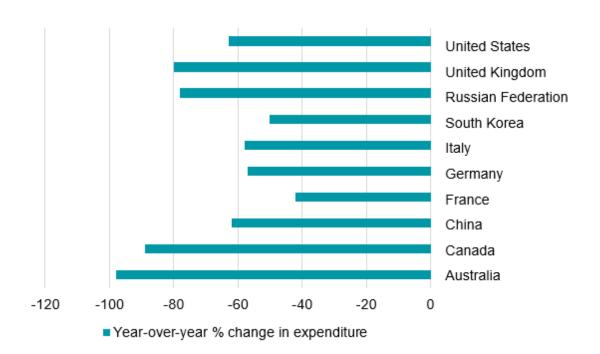




European markets are some of those recovering better in terms of visitor expenditure

It's clear that visitor expenditure across all markets has decreased over the past two years with travel restrictions and visitor confidence having impacts on travel. However, Italy, Germany and France are some of the source markets with the lowest reduction in expenditure. This advocates a short-term focus on European, or short-haul, markets as we return towards a less restricted normality.

Year-over-year % change in expenditure (2019 to 2021)





10-Year Visitor Economy Strategy: Defining Next Steps

Visitor economy support and attention has been domestic-facing during the pandemic

Support offered to the visitor economy over the past few years has been dominated by supporting domestic businesses impacted by the COVID-19 pandemic. Making sure businesses stay afloat going forwards has been the key prerogative of stakeholders involved in tourism and hospitality. Equally, given travel restrictions, the view has been very inward-facing with little attention given to international markets.

This calls for continuity from the programmes that were in operation prior to the pandemic. There were several successful schemes such as England's Historic Cities and "more than just a holiday" that Lancashire was involved in targeting specific markets. Picking up these programmes feels the most effective way to re-engage with international audiences.

Equally, target market can focus on large diaspora populations in the county and more broadly, markets with high outbound visitor numbers.

Therefore, Lancashire should focus on:

- Short haul markets which in the short term are more likely to reopen for easy international travel with the UK
- Long haul markets with a more medium to long term opportunity which will need curating and managing over time as restrictions reduce

There are also links to be drawn between the visitor economy and other Pillars. Capital investment is an obvious one, increasing investment in the business visitor economy will also help to combat the seasonality of Lancashire's current visitor offer.

Higher education has a part to play as well. With large international student populations in Lancashire's universities, there is a friends and family offering for those visiting students. The evidence indicates that this is currently an under-exploited area.



A market by market approach is needed to visitor attraction

Specific markets will require particular attention to effectively attract visitors. India is a particular example of this:

- There is a strong 'family and friends' market through the Indian diaspora. A mapping exercise should be undertaken to understand what regions of India are strongly represented in Lancashire.
- · A targeted approach can be developed on a region by region approach.
- There are direct flights between Manchester Airport and 9 Indian cities by 2 carriers Emirates and KLM.
- Indian travel trade identified a particular opportunity for Blackpool. This should be exploited using any national funding from Visit England to target specific regions in India.
- Search engine optimisation is key and material should be of high-quality and in languages identified from the mapping exercise as to what regions have close contacts in Lancashire.
 India has 2 official languages, Hindi and English but in order to engage with specific regions consideration should be given to providing information in the predominant language of that region.
- Branding and imagery should focus on aspects of difference with India such as history, culture
 and natural beauty. However they should include positive aspects of shared ties such as cricket
 and food. The Lancashire Cricket Club training ground could provide a draw for staying visitors
 with links to matches at Old Trafford.
- Lancashire will be competing with Asian markets coming out of the pandemic. With travel restrictions many Asian tourist destinations are focussing on the Indian market as an alternative to Europe and North America.



10-Year Visitor Economy Strategy: Priority Markets

Given the major changes that have occurred to international travel over the past two years, these markets have been chosen primarily due to existing work that has been undertaken by Marketing Lancashire and other organisations driving the visitor economy. This will allow for an element of continuity and building on existing work when the shift moves from a purely domestic focus back to international.

Short Haul - Year 1



Long Haul - Year 2+



Short Haul Markets



Existing work has already been done in the Nordics market to target visitors for outdoor holidays as well as encouraging extension of visits to Manchester and Liverpool.



There is potential to undertake similar work in the German market, targeting visitors for outdoor holidays as well as extension of visits to Manchester and Liverpool.

Long Term



The USA is a large outbound visitor market and also the largest source market for visitors to Lancashire. Building on existing work around England's Historic Cities as well as direct travel links between the USA and Manchester Airport are options to increase tourism from the US.



As well as being a target for family and friends due to Lancashire's large Indian diaspora, an increasingly wealthy middle-class in India are exploring international travel more.



China is the largest market for outbound visitors, and these visitors are now starting to explore further beyond the organised tour trips. One nuance will be how to effectively market Lancashire to the Chinese market using Chinese social media platforms. A more long-term prospect given the resource and effort required to tailor to the Chinese market.



10-Year Visitor Economy Strategy: Activities

Activities are plotted against a three year timeline to help with prioritisation. Although the strategic outcomes are targeting a 10-Year strategy, activities will need to be reviewed and refreshed throughout to ensure relevance and keep material up to date.





Conclusions - <u>Aggravated</u> Analysis: Priority Markets

As previously discussed, with limited time and resource, markets can be most effectively targeted by prioritising into short- and medium- to long-term. They can also be grouped further when assessed across pillars. Our analysis has shown that several markets have consistently appeared across multiple pillars, which indicates that these should be focused on when taking a cross-Lancashire approach. This will allow for a more joined-up approach, combining resources between different teams and allowing for a greater return on investment for promotional activity.

Short Term - Year 1



Long Term - Year 3



Short Term Markets



France ranked top in the data modelling exercise as well as being one of Lancashire's top export and investment source markets. Despite EU Exit, there are some opportunities around mutual key sectors.



Germany ranked consistently high in the data modelling exercise and has strong alignment with Lancashire on key sectors such as advanced manufacturing. Germany is also one of the largest markets for investment and especially services exports.



The US is Lancashire's largest international partner across all pillars as well as being a large and growing market. Synergy can be found across pillars, linking trade & investment with innovation and the visitor economy.

Medium to Long Term Markets



China is the largest global market with a rapidly rising middle-class and increasing interest in internationalisation. China ranked highly throughout the data modelling exercise and provides opportunities for Lancashire across pillars.



India ranked lower in the data modelling exercise but is growing and has an expanding interest in internationalisation. There are opportunities across pillars as well as a large diaspora population that could be leveraged.



Sweden ranked highest of the Nordic markets but represents a growing opportunity in the whole region. Highly innovative and with existing work already taking place between Lancashire and Sweden, there are opportunities to leverage from tourism campaigns and trade missions.



Aggregated Analysis: Priority Sectors

Lancashire's Key Sectors

















Digital

Aerospace

Manufacturing

Energy & Low Carbon

Agriculture

Health

Education

Economy

This strategy has largely confirmed that Lancashire's key sectors do possess a strong base in terms of assets and capabilities, across all pillars. Digital including Cyber security, aerospace, advanced manufacturing, energy & low carbon, food & agriculture, health, education and visitor economy all provide a blend of existing capabilities and emerging international opportunities.

There were commonalities across sectors



DIGITISATION

There were three cross-cutting themes that have spanned across all sector analyses: digitisation, sustainability and security. Digitisation has been an important part of traditional sectors embracing a more technologically-driven approach to ways of doing business. Given Lancashire's strengths in traditional industries such as manufacturing and agriculture, greater digitisation will be critical to build greater international relevance.



The importance of sustainability grows every day as economic development agencies create strategies around trade, investment, the visitor economy and innovation. Companies' shift towards sustainability can be seen through the types of activities they support and their own policies to reduce environmental impact.



CYBER SECURITY

Security is another development that is growing in importance in the modern world as secure data, sensors and aerial platforms can only perform in a secure environment where the data is not corrupted.



Specific sub-sector specialisms were identified







DRONES

NUCLEAR

CYBER SECURITY

This strategy has produced a foundational understanding of Lancashire's sector strengths and specific sub-sectors have been identified with niche strengths that provide Lancashire with a distinct offer from competitor regions.

In drones, nuclear and cyber security, Lancashire stands out as a national and potential world leader in terms of innovation. These assets can be leveraged to attract further investment, promote exports of goods and knowledge, and drive further innovation.

Sector proposition development can initially concentrate on these sub-sectors to articulate Lancashire's unique assets, capability, and overall strengths including a robust skill pipeline to support growth pillars and key assets driven through the Lancashire Skills and Employment Strategic Framework. A core component of promotional and branding activity going forwards should focus on these key sub-sectors and how to appeal to international businesses and stakeholders in these niches.



A 10-Year Delivery Plan: Activities

Activities are plotted against a three year timeline to help with prioritisation. Although the strategic outcomes are targeting a 10-Year strategy, activities will need to be reviewed and refreshed throughout to ensure relevance and keep material up to date.



Develop and Implement Digital Services

- Adopt a joined-up approach to digital services that grows Lancashire's online presence through marketing and social media.
- A more digitally-driven approach to economic development that maximises human resource by digitising certain services and tools for investors, exporters, innovators and visitors alike.
- · Create a more internationally-focused digital presence that appeals to certain markets.



Promotion and branding in international markets

- Adopt a consistent branding across pillars to raise the profile of Lancashire through a more aggressive marketing strategy that focuses on key international markets.
- · Awareness of Lancashire's strengths and assets on the international stage.
- A cohesive approach to marketing Lancashire to international audiences with each pillar being able to benefit from promotional activity.

Collaboration on markets and sectors

- A formal setting in which different teams can come together to share planned activity and areas
 of potential overlap.
- A collaborative approach to economic development where different teams in Lancashire work together with the same goal of growing Lancashire's presence in the international economy.
- Pooling resources, funding and time to ensure a maximised return on investment for international promotional activity.

International networks and partnerships

- Create meaningful partnerships in international markets drive innovation, collaboration, tourism, reciprocal trade and investment.
- · Work with other organisations and foster increased collaboration across pillars.
- · Raise awareness of Lancashire's offer through partnerships.
- Increase integrated thinking within the county by leveraging existing relationships for wider benefits as well as develop new ones.

Review progress and refresh

- Over the duration of the 10-Year Strategy, integrate regular checkpoints to review work to date and refresh, if required, going forwards.
- Over the course of the coming 10 years there will be changes on a local, national and global that will require flexibility in approach and the need to change or adapt activity.
- These reviews should be undertaken with respect to each activity but also more broadly across
 the aims and purposes of the 10-Year Strategy.



Resource Implications of the Internationalisation Strategy

The Internationalisation Strategy covers five pillars of work in which various partners will take the lead and will already have some resource in place, such as Marketing Lancashire. Other areas of work such as inward investment and capital investment have no dedicated resource. Lancashire can choose to put some resource into this activity if it wants to make a step-change in its performance in internationalisation.

By creating a vibrant ecosystem of innovation, flowing through to innovative companies who have the right skills in their companies to deliver their potential the county will grow its economy. Highly skilled jobs will be created which will tempt graduates, including overseas graduates to stay which in turn will attract more inward and capital investment. Exporting companies are more resilient and if more businesses and universities hold conferences showcasing their products then the visitor economy will grow its share of international visitors. Thus by each pillar working collectively the economy of Lancashire will grow in line with its ambition.

The summary table overleaf indicates the extra resource required to engage in all of the workstreams in each pillar. There is a Lancashire Export Manager funded by the Department for International Trade which is not included in the figures and is assumed to continue for 3 years. The individual action plans give the detail of the amount of resource in terms of full time equivalent posts and length of activity needed for each element so that if funding becomes available the there is a plan ready to be delivered. Each workstream of the action plans can be taken individually but collectively the resource can make much more of an impact.

The stakeholder group with oversight of the Internationalisation Strategy will work to identify additional resource and ensure that work is done collaboratively to maximise the resource available.



Summary table

Pillar	Resource	Cost	Outcomes
Export	6 FTE	£744,000	 Understand sector and subsector strengths to underpin trade activity A definitive set of service offerings. Lancashire companies provided with the confidence to excel in international markets. Collaboration between organisations delivering export services to increase Lancashire's profile More established trade corridors Greater collaboration and purposeful approach regarding events and missions
Foreign Direct Investment	6 FTE*	£791,000	 75 FDI project wins, 2,500 new jobs 75 companies targeted per year for investment promotion
Capital Investment	4.5 FTE	£561,000	 Increased visibility of the capital investment ecosystem. 15% increase in private equity investment Increase in low carbon investment in Lancashire
Innovation	2 FTE	£150,000	 Map activities, gaps and targets Synthesise opportunities and create propositions Successful well attended events across all four priority Missions Leads generated in all four priority Missions
Visitor Economy Total	6.5 FTE	£570,000	 Identify opportunities for increased international profile International campaign activity Develop a target list of international events Engagement of Visitor Economy employers in skills programmes and digital skills provision

^{*} Currently 0.5 FTE funded until 30/9/22 and included in the cost figure



The Lancashire Independent Economic Review (IER) is led and funded by Lancashire County Council, Blackburn with Darwen Borough Council, Blackpool Council and the Lancashire Enterprise Partnership on behalf of Lancashire Leaders. Lancashire Leaders comprises the leaders of Blackburn with Darwen Borough Council, Blackpool Council, Burnley Borough Council, Chorley Borough Council, Fylde Borough Council, Hyndburn Borough Council, Lancashire County Council, Lancashire City Council, Pendle Borough Council, Preston City Council, Ribble Valley Borough Council, Rossendale Borough Council, South Ribble Borough Council, West Lancashire Borough Council, Wyre Borough Council and the Lancashire Enterprise Partnership.