



Enginuity Limited
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Welcome to Enginuity's Labour Market Information (LMI) snapshot, focusing on job vacancies posted between 2019 and 2023. This document presents data showing the demand for occupations within engineering-related sectors, highlighting hiring patterns and the skills employers are seeking. As the economy undergoes rapid shifts, understanding the state of the labour market is essential for both job seekers and employers.

Scope of Analysis:

Our deep dive explores job vacancies within the Lightcast Occupations in the following categories:

Engineering and Manufacturing Sector Overview

Our snapshots offers both a broad overview and detailed data, aiding stakeholders in making informed decisions. Whether you're an engineering sector employer, a job seeker, an HR professional, or a policymaker, this LMI snapshot aims to illuminate the current state of these crucial occupational sectors.

About Enginuity:

Enginuity creates practical skills solutions for individuals, educators, and engineering and manufacturing employers, using unmatched expertise and data - so engineers can change their world and ours.

- It helps individuals, educators and employers see and develop the skills needed to succeed, boosting the UK economy.
- It gives individuals, educators and employers the confidence to make smarter decisions about the skills they need to succeed, today and tomorrow.
- It brings employers, educators, and policymakers together, helping to provide people with the opportunities they need to change their lives and tackle society's greatest challenges.

Enginuity creates skills solutions for individuals, educators and engineering employers, using unmatched industry expertise and data.

Its people are engineering specialists rather than skills and education generalists – engineering qualifications by engineers, for engineers. Using data it creates the right skills solutions for individuals and employers to succeed, today and tomorrow.

www.enginuity.org

Data: Source: Lightcast. 2024 Source: Lightcast [DataAnalyst] 2024.

Products: Source: Lightcast Analyst 2024.

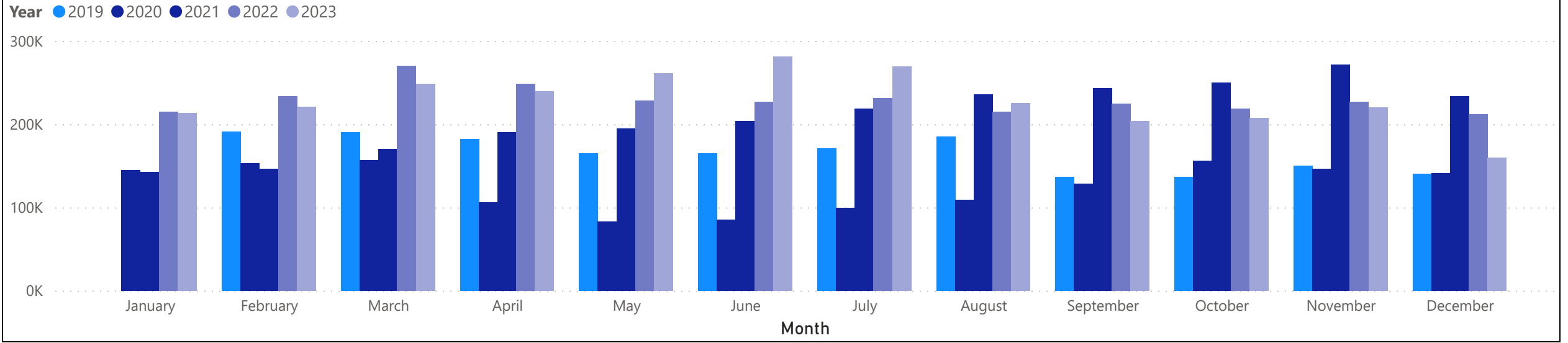
Definitions List

- **Employer Demand:** Refers to the specific needs and requirements that employers have for workers in terms of skills, qualifications, and experience. Measured as the number of unique job postings.
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- **Competing Employers:** Employers with similar demand for skills, qualifications and experience who are in direct competition to attract talent. Measured as the total number of unique employers submitting Job Postings.
- **Occupation Group:** Clusters of occupations (job roles) within the Lightcast taxonomy that share very similar skill or role requirements.
- **Occupation:** The job roles within Occupation Groups that require a distinct mix of knowledge, skills, and abilities, and are performed using a variety of activities and tasks. Lightcast Occupations are designed to align easily with national taxonomies, undergraduate degree programs, and the career and career aspirations associated with workers entering the workforce or entering a new industry for the first time:
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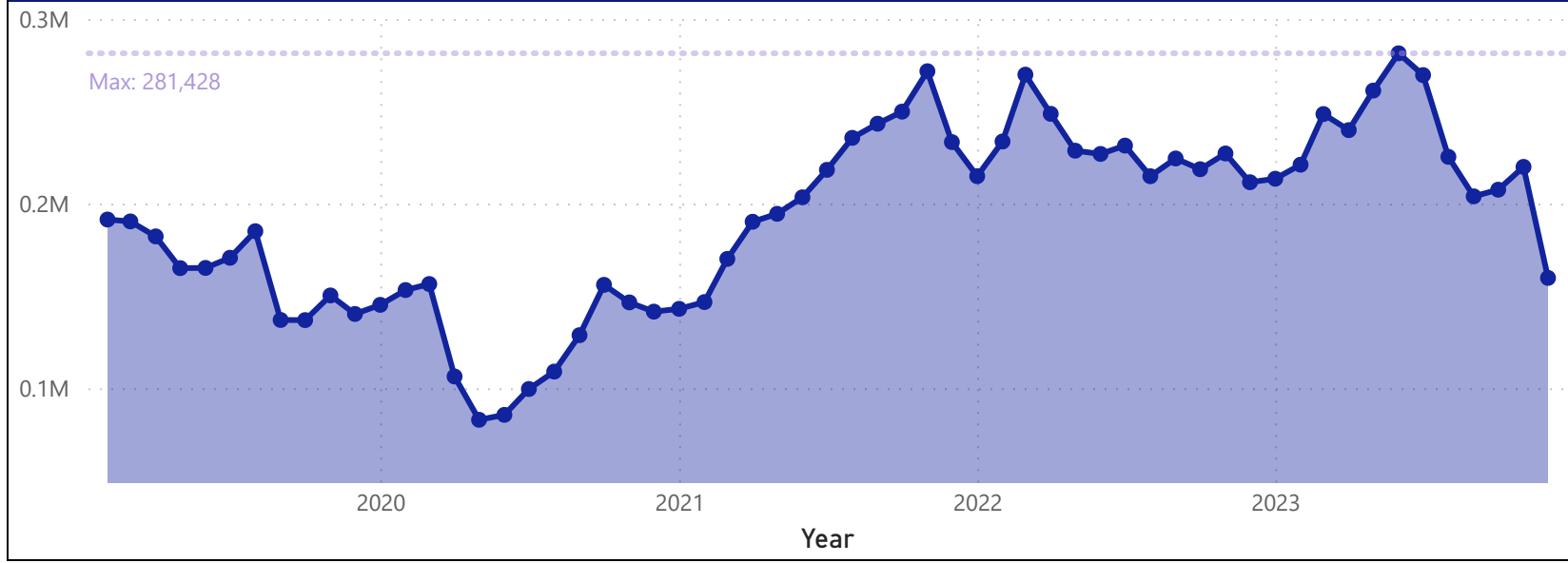
Employer Demand from 2019 to 2023

Employer Demand is measured as the number of unique job postings

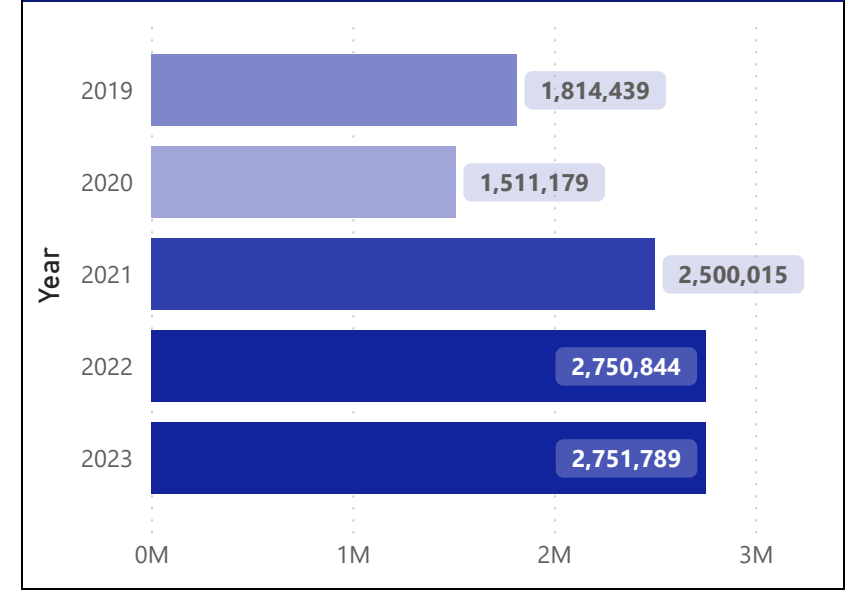
1.1 - Unique Job Postings by Year and Month



1.2 - Unique Job Postings Time Series



1.3 - Unique Job Postings by Year

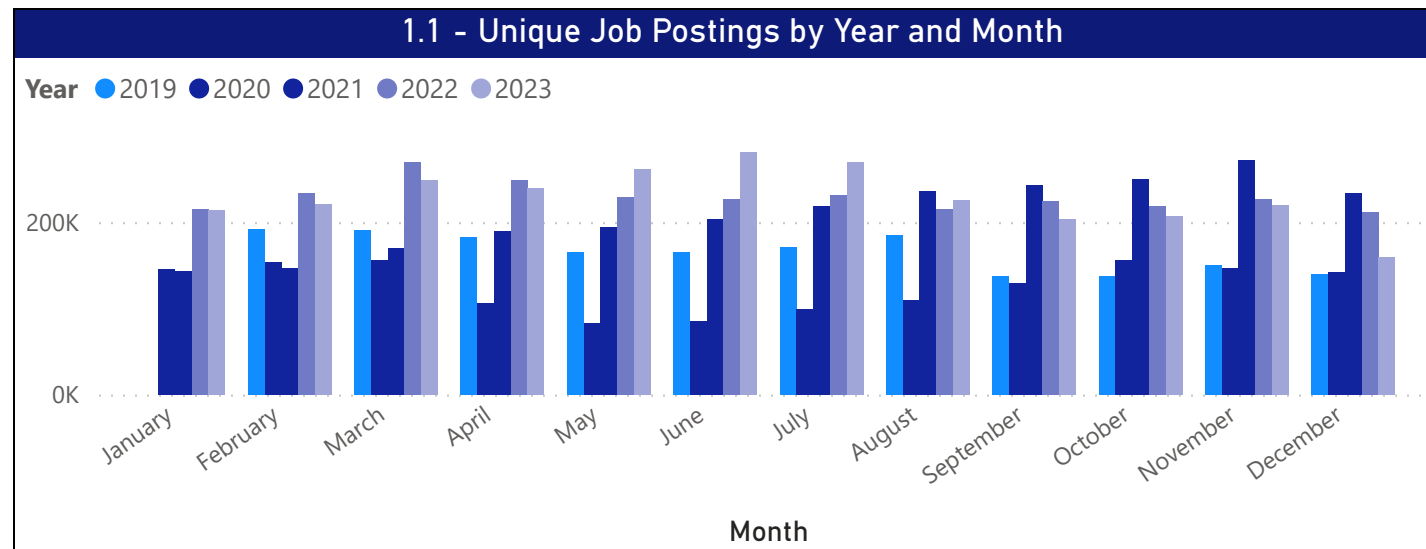


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1.1- Unique Job Postings by Year and Month

From 2019 to 2023, the engineering and manufacturing sector in the UK underwent significant shifts in employer demand. Initially, in 2019, demand remained stable with a focus on infrastructure and technological advancements. However, the outbreak of the COVID-19 pandemic in 2020 caused disruptions, leading to a decline in hiring as businesses navigated economic uncertainties. Despite this setback, as companies adapted to remote work and digital solutions, demand gradually rebounded. In 2021, efforts to recover from the pandemic led to increased demand for skilled professionals, while 2022 witnessed a surge in green technology and sustainability-focused roles. By 2023, amidst ongoing global challenges, employer demand remained robust, highlighting the sector's resilience and adaptability.

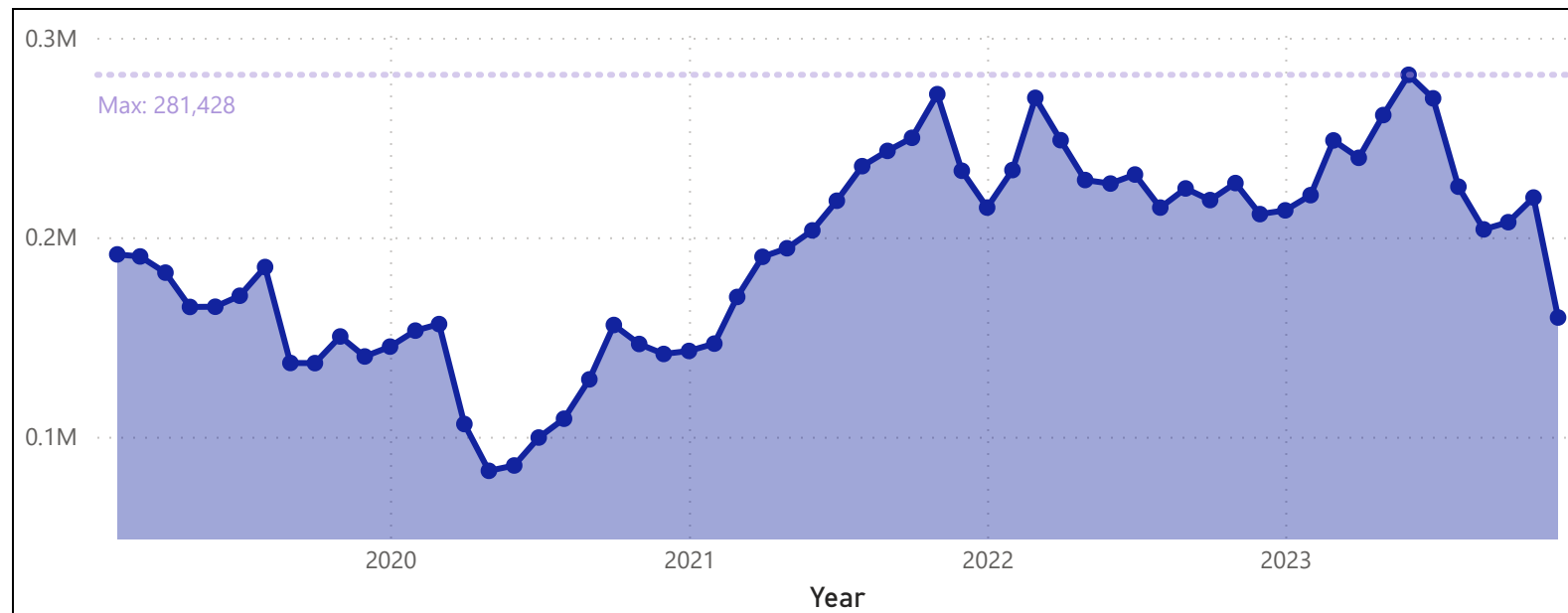


1.2 - Unique Job Postings Time Series

The time series graph portraying daily employer demand in the UK's engineering and manufacturing sector from 2019 to 2023 unveils a narrative of resilience through challenging times. Initially stable, the graph takes a sharp downturn in 2020 as the COVID-19 pandemic disrupts operations and projects. However, a recovery is witnessed in 2021 and 2022, with peaks indicating industry adaptation and innovation, particularly towards green technologies and sustainability initiatives.

Towards the end of 2023, the graph shows a slight dip, suggesting a potential slowdown or shift in market dynamics. While the overall trend remains positive, this downturn warrants attention and analysis. It could signify various factors such as economic fluctuations, geopolitical uncertainties, or industry-specific challenges emerging towards the end of the year.

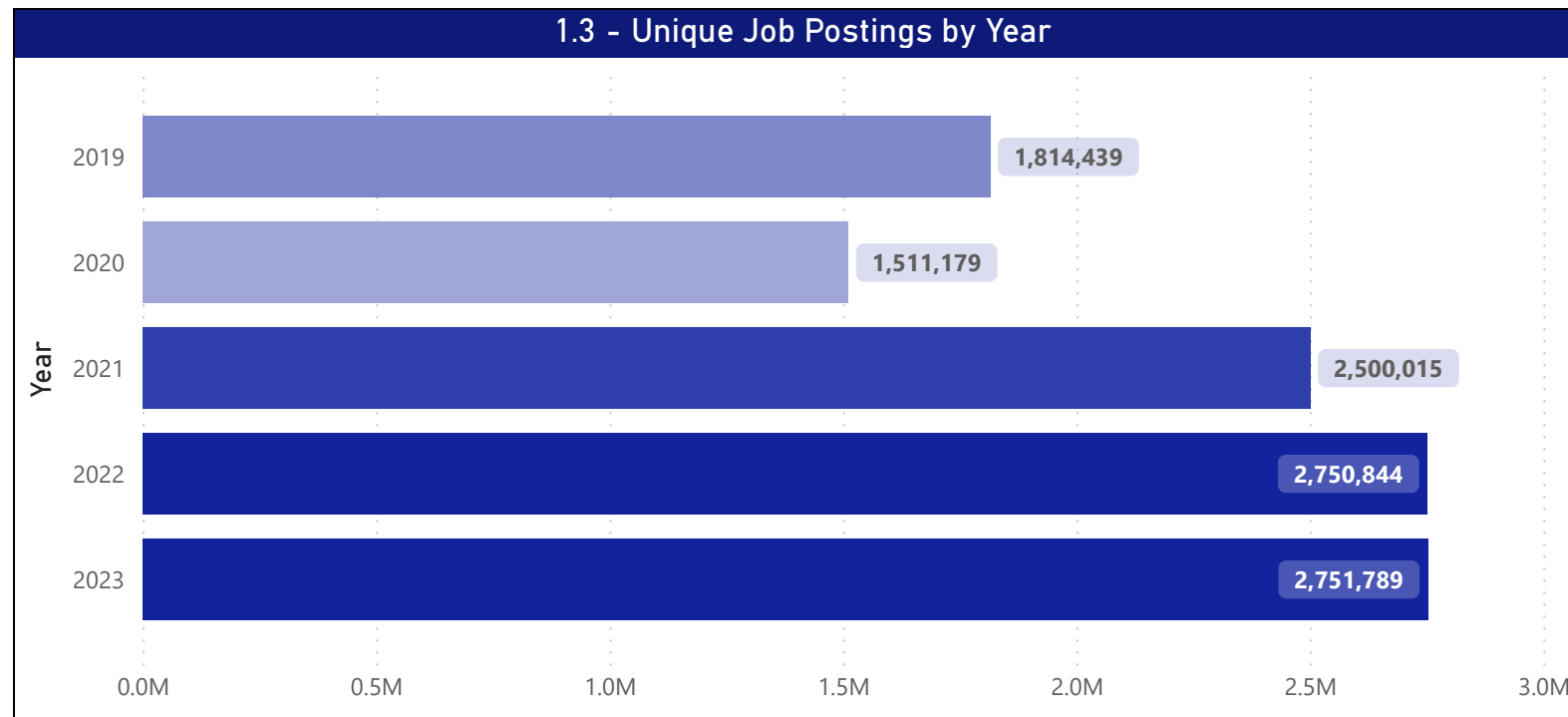
Despite this dip, the sector's resilience remains evident, as evidenced by its ability to rebound from the pandemic and adapt to changing circumstances.



1.3 - Unique Job Postings by Year

From 2019 to 2023, the bar chart tracking yearly employer demand in the UK engineering and manufacturing sector reflects a story of resilience. Initially stable, demand plummeted in 2020 due to the pandemic.

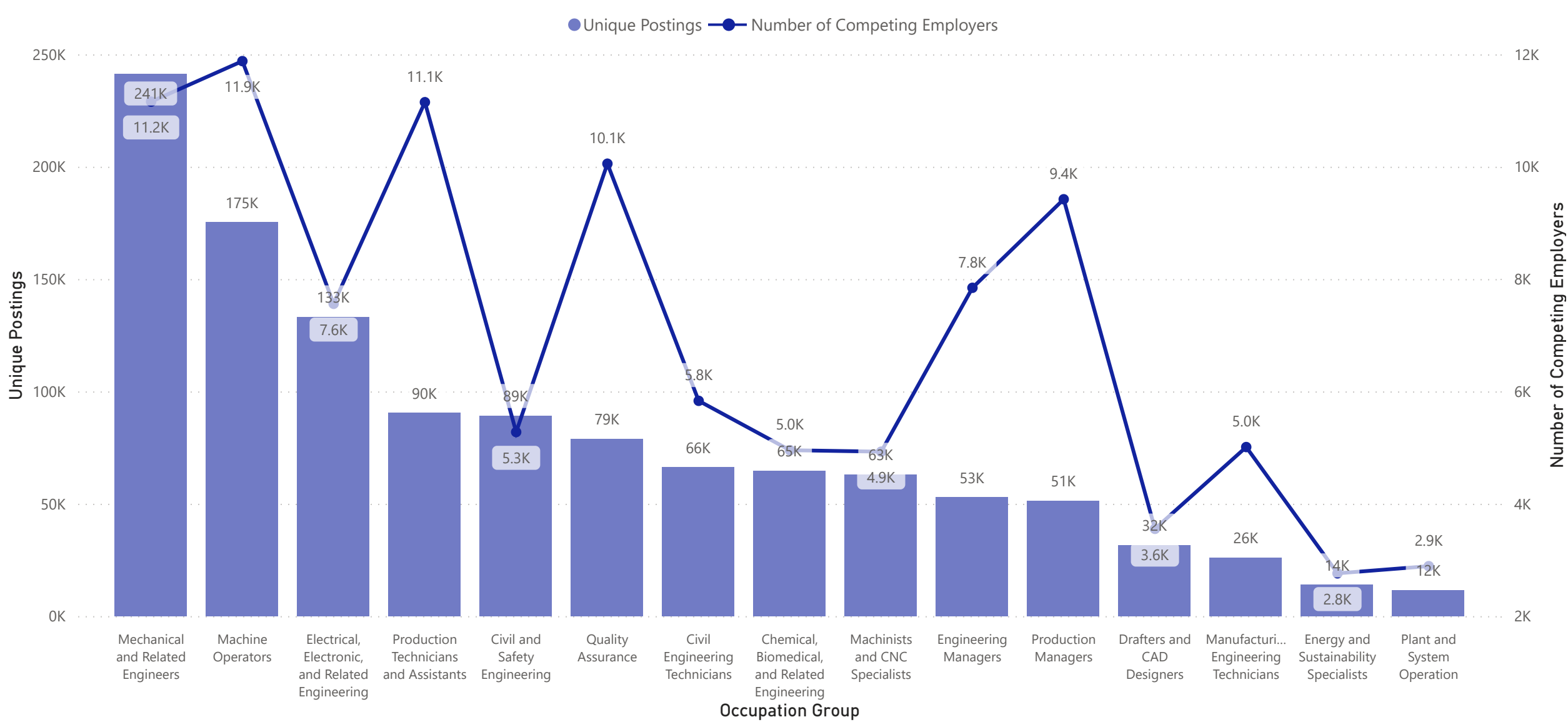
However, signs of recovery emerged in 2021, with optimism returning and sustained growth continuing into 2022 and 2023.



E&M Occupation Groups by Employer Demand 2023

2.1 - E&M Occupation Groups by Employer Demand alongside Number of Competing Employers 2023

The Engineering and Manufacturing sector is broken down into occupational groups. Plotted alongside is the total number of unique competing employers.



Source: Lightcast

E&M Occupation Groups by Employer Demand 2023

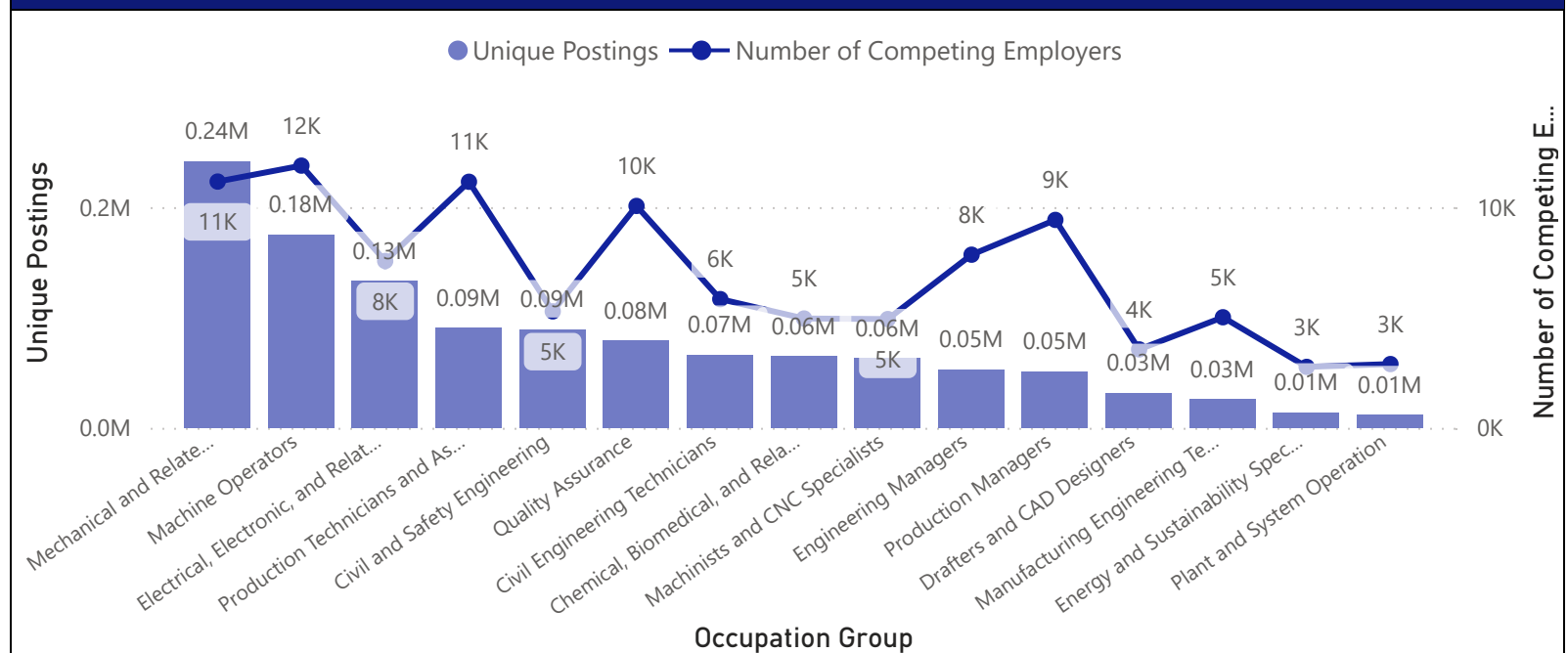
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2.1 - E&M Occupation Groups by Employer Demand alongside Number of Competing Employers 2023

The bar chart illustrates the UK's Engineering and Manufacturing Occupation Groups, revealing varied dynamics in demand and competition for talent. Mechanical and Related Engineers top the list with high demand and intense competition among employers, signaling a competitive landscape, (241,77 unique job postings in 2023 from 11,158 employers). Meanwhile, some groups show high demand but lower competition, indicating niche roles. Conversely, certain groups face high competition despite lower demand, possibly due to industry-specific skill shortages. This nuanced scenario highlights the importance of adaptability and strategic planning for employers in navigating the dynamic labor market of the UK's engineering and manufacturing sector.

2.1 - E&M Occupation Groups by Employer Demand alongside Number of Competing Employers 2023



Top E&M Occupations by Employer Demand from 2019 to 2023

Top 15 Occupations within the E&M Occupational Groups, and Employer Demand from 2019 to 2023. Highlighting the increasing and decreasing demand over time.

3.1 - Top Occupations in Demand

Unique Job Postings 2019 - 2023

Year	2019	2020	2021	2022	2023	Total	
Occupation	Unique Postings	Unique Postings	Unique Postings	Unique Postings	Unique Postings	Unique Postings	Total Unique Postings
Mechanical Engineer	229,792	173,889	260,985	303,364	319,976	1,288,006	
Manufacturing Machine Operator	141,627	126,934	257,121	262,072	227,967	1,015,721	
Civil Engineer	120,983	82,608	141,699	163,286	163,611	672,187	
Electrical Engineer	107,162	85,552	132,729	155,425	165,862	646,730	
Engineering Manager	81,384	63,148	115,284	126,496	120,655	506,967	
Production Worker	74,894	55,816	110,776	114,983	115,203	471,672	
Surveyor	87,769	63,458	98,548	99,290	119,124	468,189	
Quality Inspector / Technician	75,652	50,354	85,495	94,727	88,338	394,566	
Manufacturing Engineer	72,506	47,608	77,907	101,260	89,390	388,671	
Industrial Engineer	72,046	46,158	78,015	94,611	91,148	381,978	
Quality Control Systems Manager	62,861	46,152	85,303	92,725	83,018	370,059	
Welder / Solderer	52,021	36,800	73,820	70,358	82,995	315,994	
Reservoir / Petroleum Engineer	45,476	43,947	79,374	58,490	58,296	285,583	
Electronics Engineer	48,566	37,483	62,034	65,240	70,236	283,559	
Production Supervisor	45,261	31,968	58,735	69,698	62,248	267,910	

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3.1 - Top Occupations in Demand

The data outlines job posting trends in the UK's Engineering and Manufacturing sector from 2019 to 2023.

Roles like Civil Engineers and Mechanical Engineers show consistent growth, reflecting ongoing demand in construction and infrastructure projects. Others, like Electronics Engineers and Manufacturing Machine Operators, fluctuate, possibly due to technological changes. Managerial roles and quality assurance positions remain relatively stable. However, roles like Reservoir/Petroleum Engineers show a decline, possibly indicating shifts in the energy sector. Overall, the data portrays the sector's diverse and dynamic nature, influenced by market demands and technological advancements.

Occupation	2019	2020	2021	2022	2023	Total
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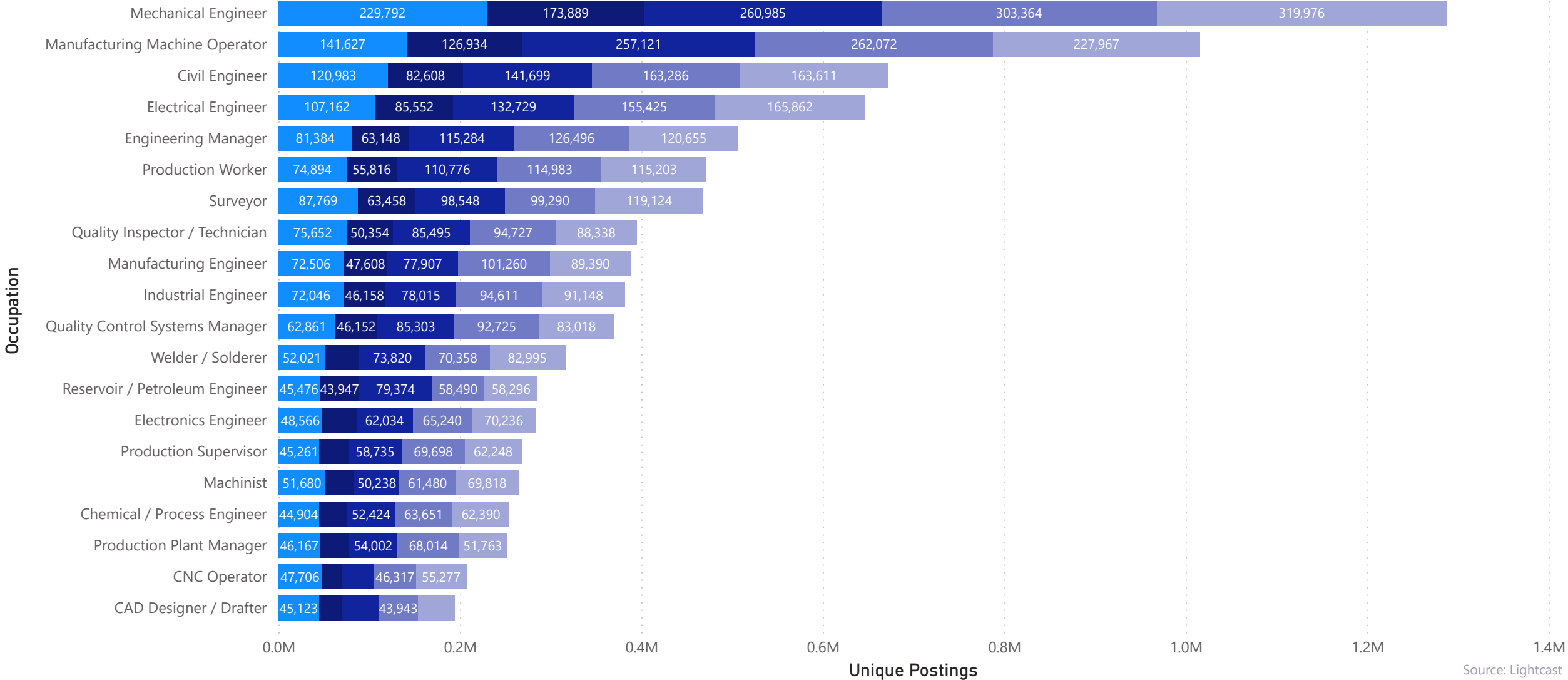
Occupational Demand - Top Occupations in Demand

Highlights the overall employer demand relative to each occupation.

4.1 - Occupations by Employer Demand

Unique Job Postings 2019 - 2023

Year ● 2019 ● 2020 ● 2021 ● 2022 ● 2023



Source: Lightcast

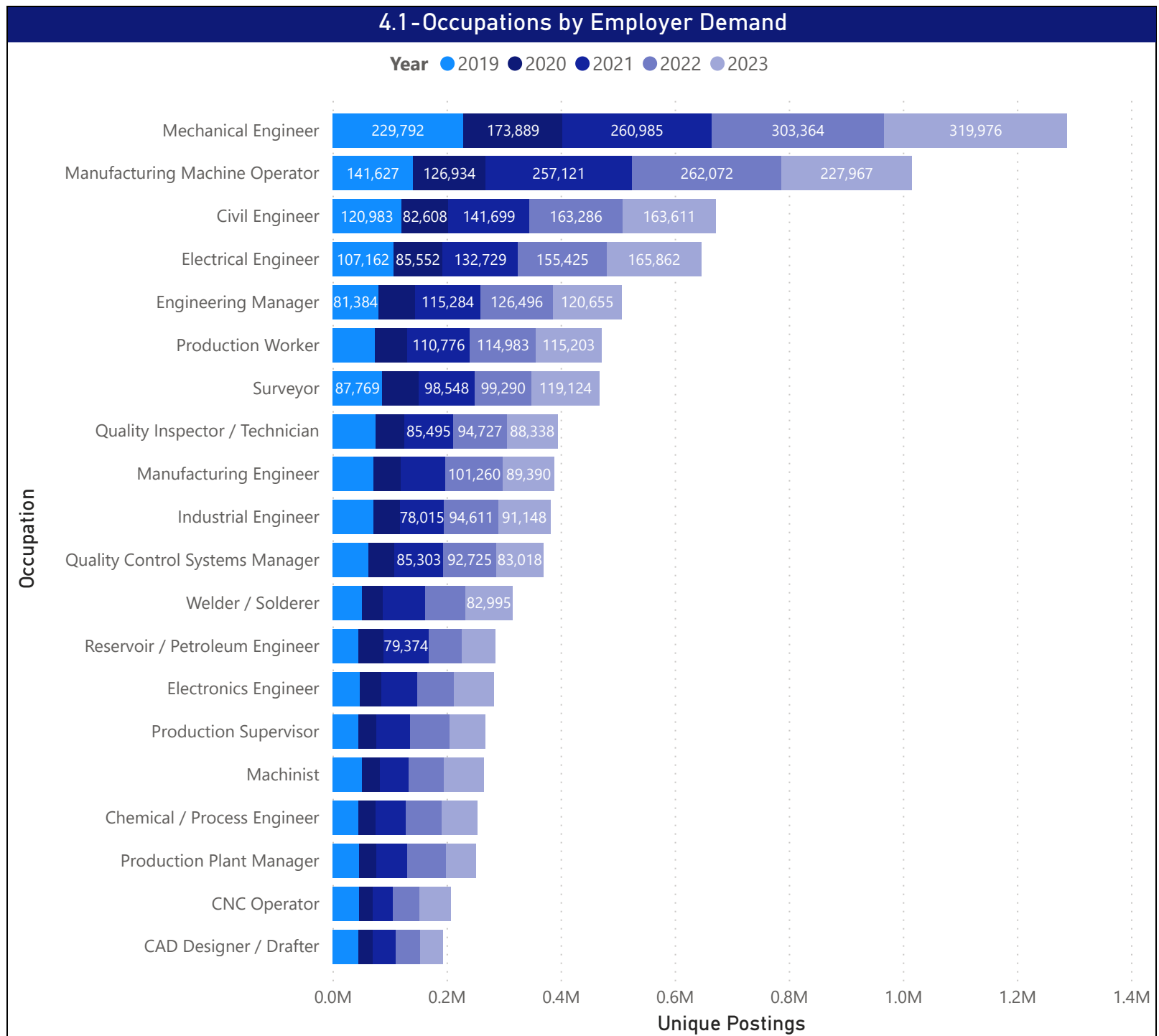
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4.1 - Occupations by Employer Demand

The stacked graph visualizes job posting trends across different occupations in the UK's Engineering and Manufacturing sector from 2019 to 2023. Notable highlights include:

- A consistent increase in job postings for roles like Civil Engineers and Mechanical Engineers, with postings rising by approximately 35% for Civil Engineers and 39% for Mechanical Engineers from 2019 to 2023.
 - Fluctuations in job postings for occupations like Electronics Engineers and Manufacturing Machine Operators, reflecting changes in demand over the years. For example, job postings for Electronics Engineers increased by approximately 45% from 2019 to 2023, while postings for Manufacturing Machine Operators rose by around 61% during the same period.
 - Relatively stable trends for managerial roles and quality assurance positions. Engineering Managers, for instance, maintained a moderate level of job postings, with a fluctuation of around 48% from 2019 to 2023, while Quality Control Systems Managers remained relatively stable, with a change of approximately 32% during the same period.
 - A decline in job postings for Reservoir/Petroleum Engineers, with postings decreasing by about 28% from 2019 to 2023, possibly indicating shifts in the energy sector.
- Overall, the graph provides a comprehensive overview of sector dynamics, showcasing varying trends across different occupation categories and highlighting the evolving nature of the Engineering and Manufacturing sector in the UK.

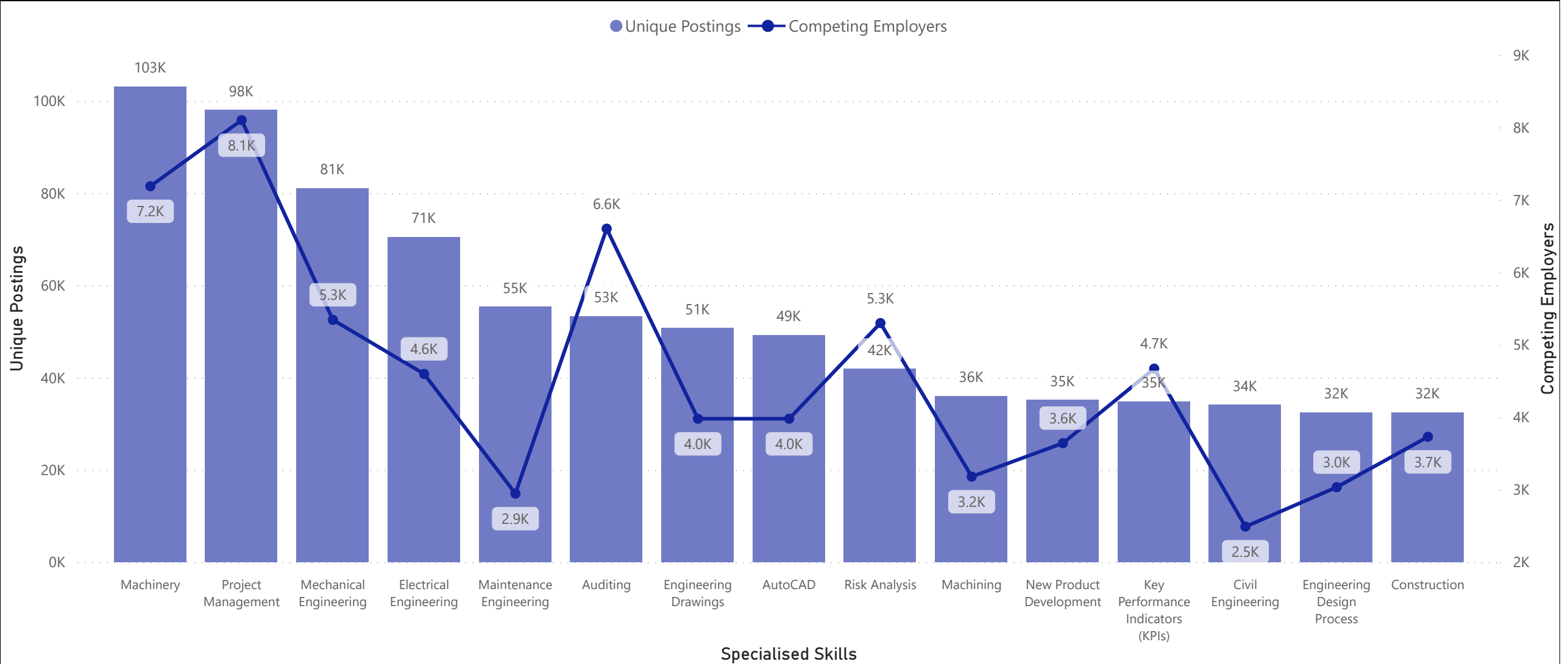


Top Specialised Skills in Demand 2023

This graph shows the most in demand specialised skills across all E&M Occupations in 2023. Plotted alongside this is the total number of competing employers that submitted job postings for each of specialised skills.

5.1 - Top Specialised Skill Demand

Unique Postings & Employers Competing from Jan 2023 - Dec 2023



5. Definitions List

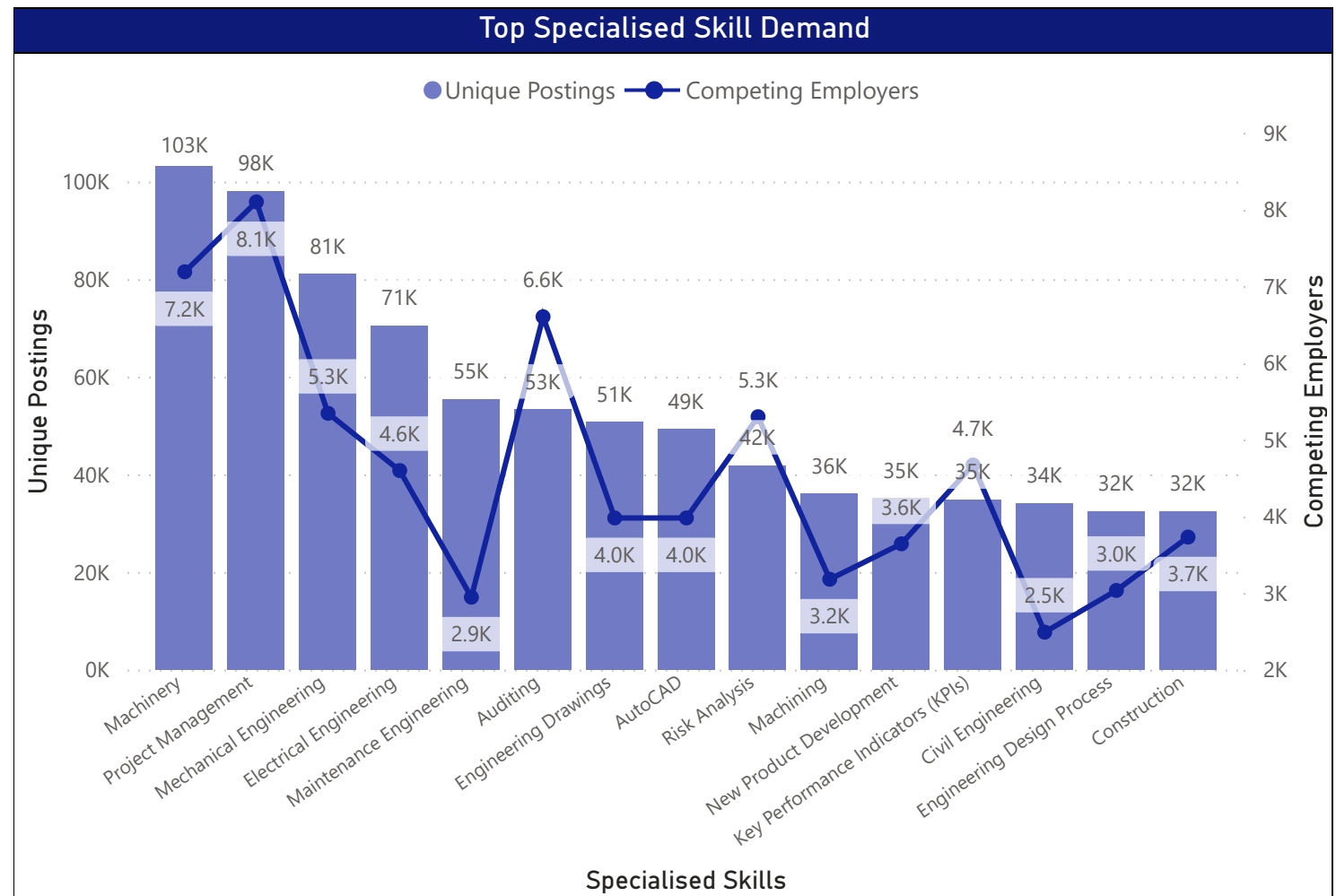
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5.1 - Top Specialised Skills in Demand

Across the UK's Engineering and Manufacturing sector from January to December 2023, the following skills were in high demand.

- Machinery:** Over the year, there were 103,166 job postings, attracting 7,187 competing employers. This demand underscores the sector's heavy reliance on advanced machinery for manufacturing processes, necessitating skilled operators and maintenance professionals to ensure efficient operations and minimize downtime.
- Project Management:** Job postings for project management skills totaled 98,057, with 8,099 competing employers. This significant demand highlights the industry's emphasis on effective project execution, resource management, and timely delivery amidst complex engineering projects and tight deadlines.
- Mechanical and Electrical Engineering.** Both fields experienced substantial demand, with 81,048 and 70,533 job postings, respectively. The need for professionals adept in mechanical and electrical engineering reflects the industry's reliance on individuals capable of designing, developing, and maintaining sophisticated systems and machinery.
- Maintenance Engineering.** Despite fewer job postings (55,395), competition among 2,945 employers remained notable. This indicates the critical role of maintenance professionals in optimizing equipment reliability and minimizing operational disruptions, crucial for maintaining productivity and competitiveness.
- Auditing and Risk Analysis.** With 53,315 job postings and 6,601 competing employers, there's evident industry focus on quality assurance and risk management. These skills are vital for ensuring compliance with regulations, maintaining product quality, and safeguarding operational safety.

- Engineering Drawings and AutoCAD.** The industry sought proficiency in engineering drawings and AutoCAD software, with over 50,000 job postings each. These skills are essential for accurately translating design concepts into technical specifications, facilitating efficient manufacturing processes and project execution.



- Other Skills** like machining, new product development, civil engineering, and construction, with job postings ranging from 32,481 to 51,767, catered to specific industry needs. These include innovation, infrastructure development, and product diversification, essential for staying competitive and meeting market demands.

Overall, these trends underscore the dynamic nature of the UK's Engineering and Manufacturing sector, driven by technological advancements, regulatory requirements, and market demands. Professionals equipped with diverse technical and managerial skills are indispensable for driving innovation, efficiency, and sustainability across the sector.

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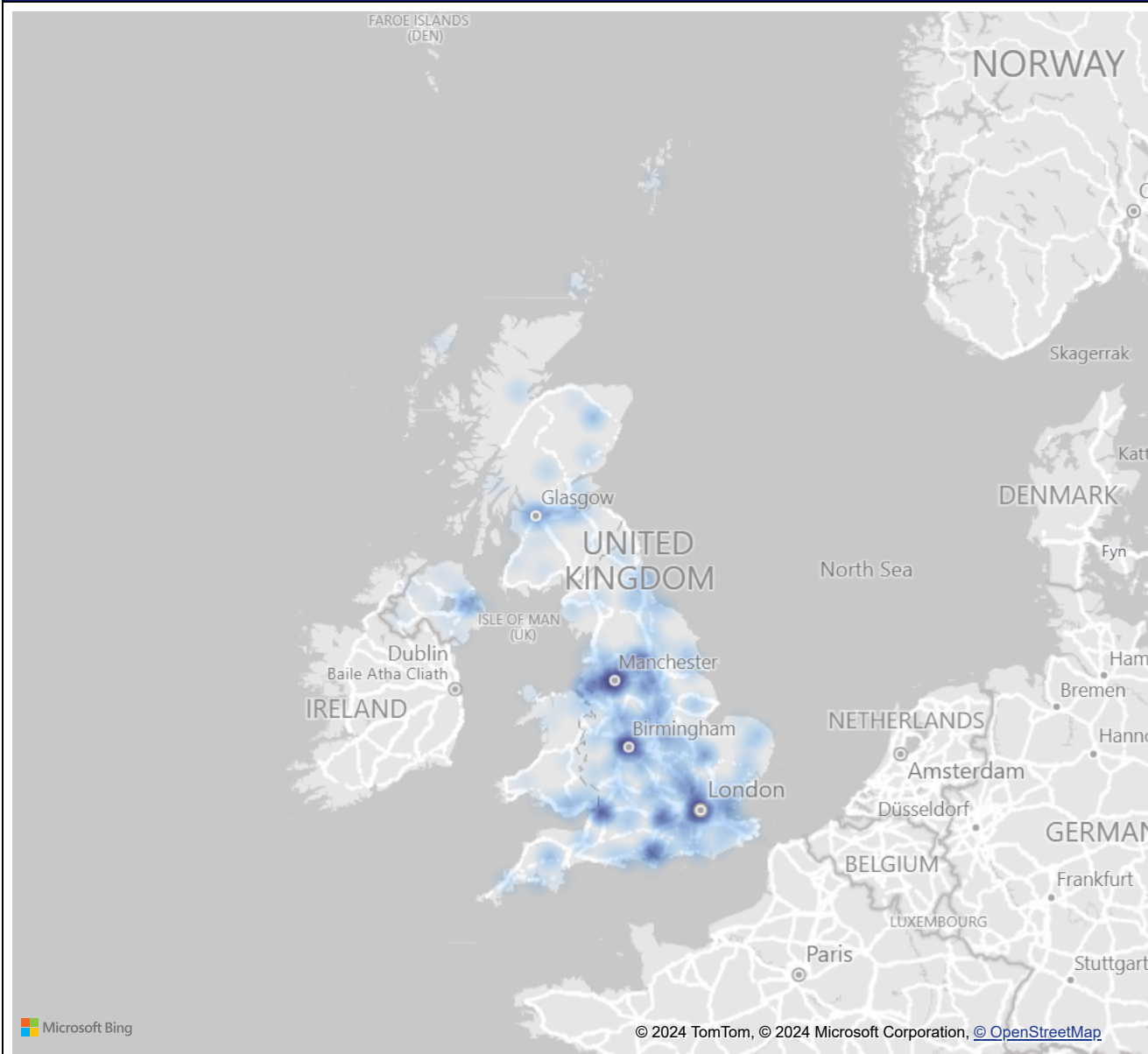
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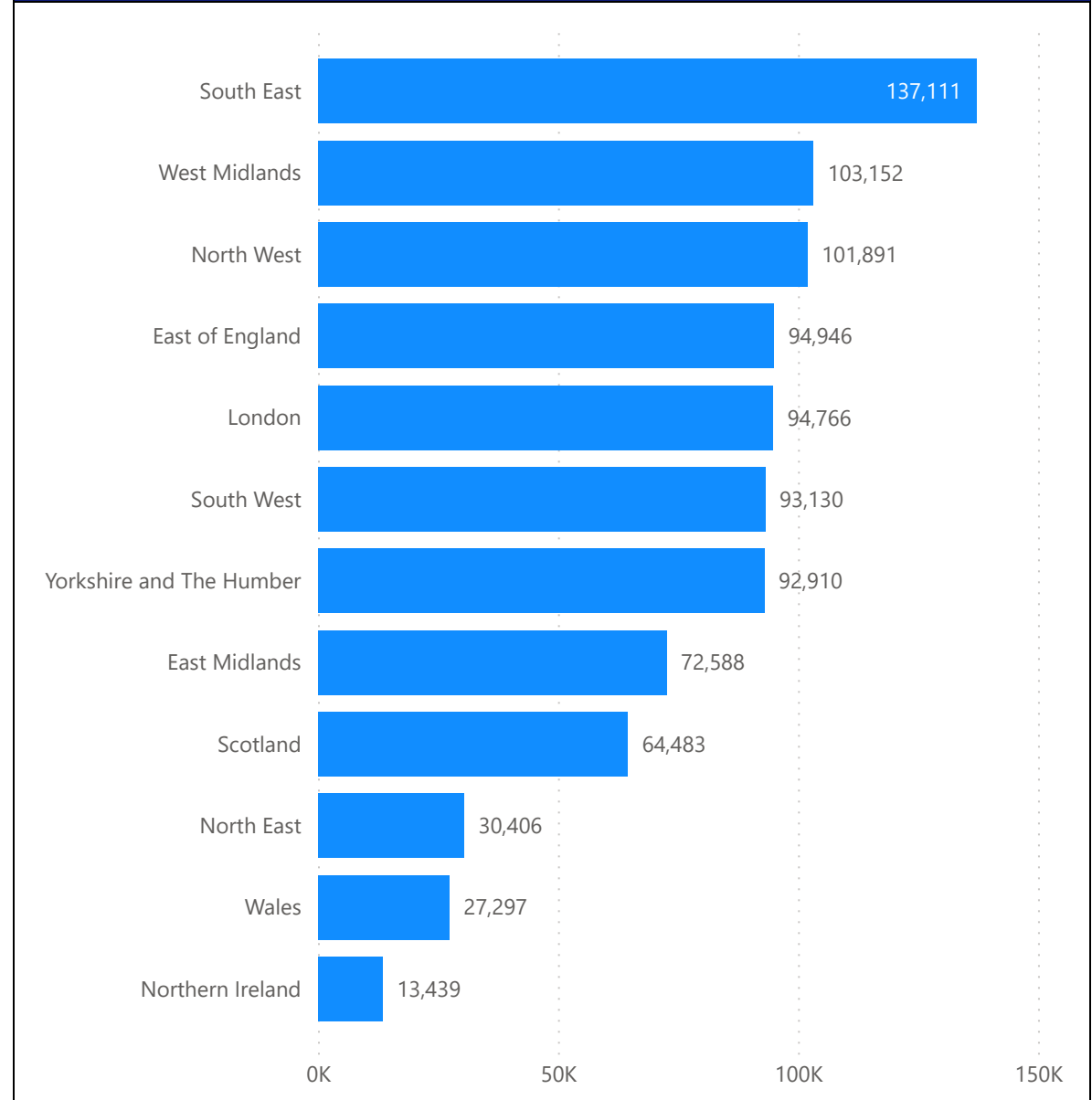
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Employer Demand by Region 2023

7.1 - Employer Demand Distribution by Region 2023



7.2 - Employer Demand by Region 2023

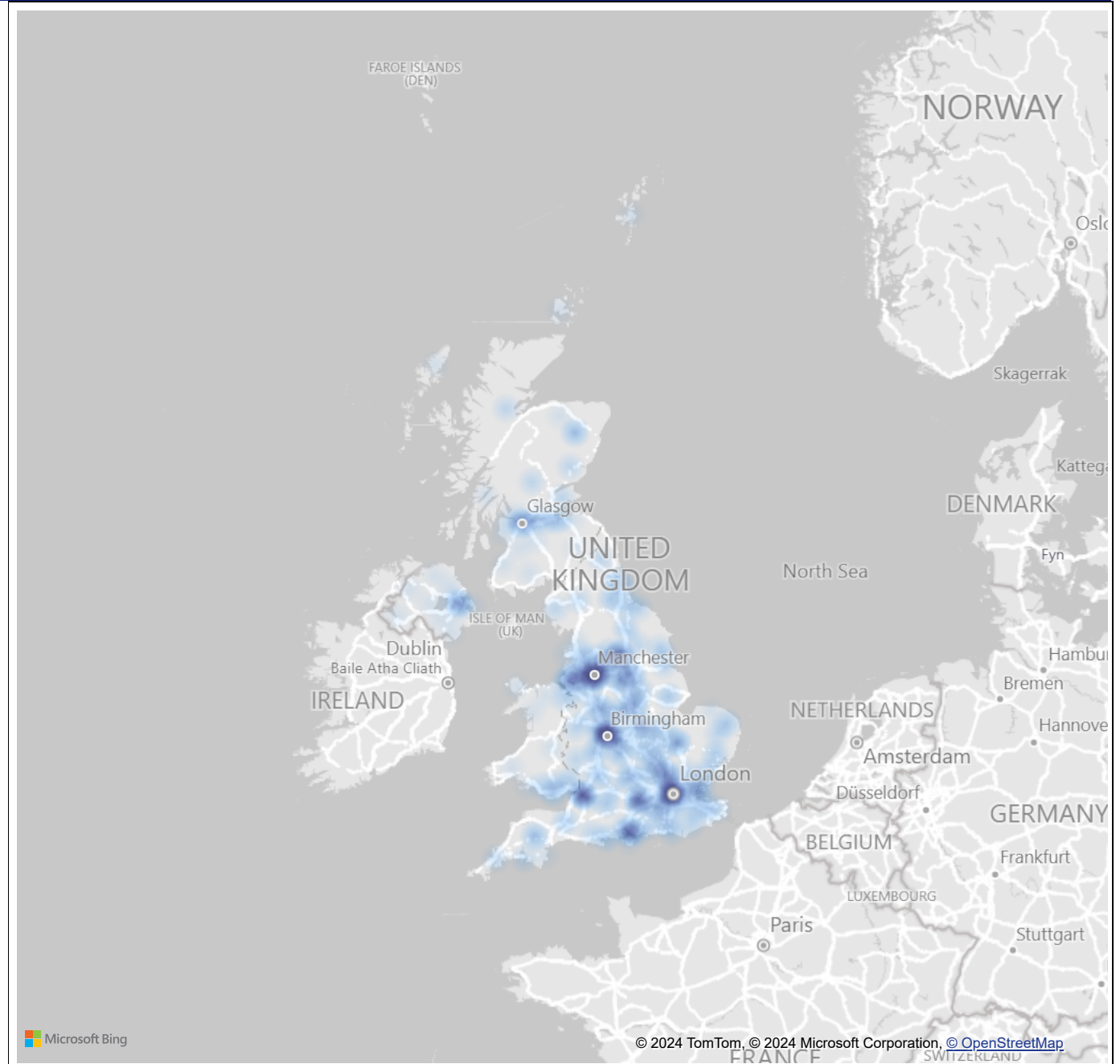


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7.1 - Employer Demand Distribution by Region

Using a heat map to illustrate UK Employer Demand across 2023, distinct regional patterns emerge, revealing areas of higher and lower activity across the country. The South East emerges as a hotspot, indicating significant levels of job postings and highlighting its pivotal role as a hub for engineering and manufacturing activity. The West Midlands displays a comparable level of activity, underscoring its status as a thriving manufacturing stronghold. The North West also shows considerable activity, reflecting its resilient and innovative industrial landscape. In contrast, regions such as the North East and Northern Ireland show lower levels of activity. However, even within these areas, localised pockets of opportunity are evident, demonstrating potential for growth and development within the sector. As the heat map provides insights into spatial variations in job postings, it offers valuable information for businesses and policymakers regarding the distribution of engineering and manufacturing activity across the UK.



Employer Demand by Region 2023

7.2 - Employer Demand By Region

Distinct patterns emerge that reflect regional strengths and industrial dynamics. The South East, renowned for its diverse economy and proximity to key transport links, leads with a substantial 137,111 unique job postings. This region's popularity lies in its robust infrastructure and concentration of industries, making it an attractive destination for engineering and manufacturing professionals.

Following closely, the West Midlands, with 103,152 postings, epitomizes the UK's manufacturing heartland, with a rich industrial heritage and a network of skilled workforce. Meanwhile, the North West, with 101,891 postings, showcases its resilience and innovation, fueled by a blend of traditional manufacturing and emerging sectors. The East of England, known for its contributions to aerospace and technology, posted 94,946 jobs, reflecting its status as an innovation hotspot. London, despite its predominantly service-based economy, registered 94,766 postings, underlining its position as a global business hub with growing engineering and manufacturing sectors. These figures highlight the diverse regional landscapes of the UK, each with its unique industrial ecosystem and opportunities for skilled professionals in engineering and manufacturing.

