

WE ARE DATA.

WE ARE NEWHAM.



NEWHAM SPARKS: CHAPTER ONE

An open Call to Action for investors, innovators, local residents, community groups and businesses to work with us to unlock the untapped potential of the data economy in Newham.

WE ARE NEWHAM.



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MESSAGE FROM THE MAYOR OF NEWHAM

We are launching Newham Sparks at a time of ongoing Covid-19 challenge as people, communities, regions and countries around the world embark on their recovery missions to bounce back.

Here in the UK, the government intends to make Britain the world's leading data destination, supporting innovation to drive growth that is green. Expanding the data and digital economy is key to the government's pandemic recovery strategy as it builds back better to support the UK's future high-growth, sustainable and innovative economy, with high productivity levels to compete internationally.

Newham Sparks is our declaration to become a public-sector data leader in local government by improving public service delivery through use of data and technology; promoting responsible data use, with trust and transparency and for the public good. We will also harness partnerships to facilitate a sustainable data ecosystem locally that will support innovation, business growth and new jobs - including the development of new learning pathways, as well as opportunities for training and acquiring new skills.

It is also a statement of our ambition to unlock the value of data and digital in everything we do as a Council to benefit our people, borough and place: to improve the environment, promote inclusive growth as well as improving how the



OUR AMBITION IS TO UNLOCK THE VALUE OF DATA AND DIGITAL IN EVERYTHING WE DO AS A COUNCIL TO BENEFIT OUR PEOPLE, BOROUGH AND PLACE

Council works to deliver better for residents. Use of data for the public good is an important infrastructure issue in keeping our streets clean, managing refuse collections, promoting sustainable transport and improving the air that we breathe.

Newham will become a catalyst – and London's destination – for innovators and investors in the growing data sector; supporting our residents and local businesses to seize the opportunities so that they benefit from the growth of the data economy in the capital as well.

Through Newham Sparks, I am excited by our open call to action for investors, innovators, local residents, community groups and businesses to work with us to leverage the untapped potential of data to do good. We want to cultivate partnerships to deliver against three priority challenges and invite you to come forward to work with us in Newham as the constantly evolving digital economy is growing at an increasing pace.

Data will become an even more important part of our lives and the global economy; its growth will be accelerated by the ever-expanding world of networked end-user devices and the Internet of Things. Data and data-driven

technologies, such as artificial intelligence, can grow our economy and help to tackle a spectrum of social challenges we face. We want Newham to be the location of the UK's most valuable 'super star' firms, but not at any cost.

Data may be the new most valuable asset in the modern economy, and its proliferation presents a tremendous opportunity to boost growth through efficiency and innovation. But we also recognise that current policy frameworks, as they relate to the growth of data, its collection, issues of privacy, data ownership, competition and inclusion, need to change.

That is why we want to contribute to how public bodies enhance transparency, accountability and trust in the use of data in the real world.

Newham Sparks is our start.

Best wishes,

Rokhsana Fiaz OBE
Mayor of Newham

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WE ARE DATA.



INTRODUCTION

The use of data is rapidly developing in business, science, academia and the public sector, increasing almost as fast as the proliferation of data itself, which is exponential: in 2020, the total amount of data captured, copied and consumed globally reached 64.2 zettabytes and global data creation is projected to grow by 180 zettabytes in 2025.¹

Accelerating the UK’s digital transformation and innovation will be fundamental to the recovery from the pandemic, with data-led technologies creating the potential for growth across the economy.

Newham is going to be at the forefront of this data revolution in the capital, as London positions itself to become the preeminent Data City in the UK. Newham has long been one of London’s most diverse boroughs. Pre-Covid, it experienced a decade of significant growth and change, with increased job growth, new communities emerging, strong commercial demand, and a large and relatively well skilled workforce. The borough benefits from the broader ‘eastward’ movement of London’s economy, high levels of transport connectivity, rapid increases in the supply of office and industrial space, and two Digital districts located around the Olympic Park and the Royal Docks. This makes Newham uniquely placed to seize the data opportunity.

Newham’s mission is to become a catalyst – and London’s destination – for innovators and investors in the data sector as the wider digital economy fuels UK recovery from the Covid-19 pandemic. We will support our residents to seize opportunities and benefit from the growth of the new data economy in all aspects and position Newham as the focal point for growth and investment in this sector.

We have stated our intent to become the most **economically inclusive borough** in London, ‘a beacon’ setting the standard for the city.² A place where residents and communities share and influence the benefits of a strong and vibrant economy, no matter what their background is. Anchored in our ambitious inclusive growth agenda and our **Towards a Better Newham** Covid-19 recovery mission, we will accelerate the growth of a high-skilled and green economy locally to benefit all our people and address the climate emergency.³

Consequently, we are inviting local residents, businesses, innovators and investors to unleash the capability of Newham and spark its position as the ‘go-to’ centre of the growing data and digital sector in London.

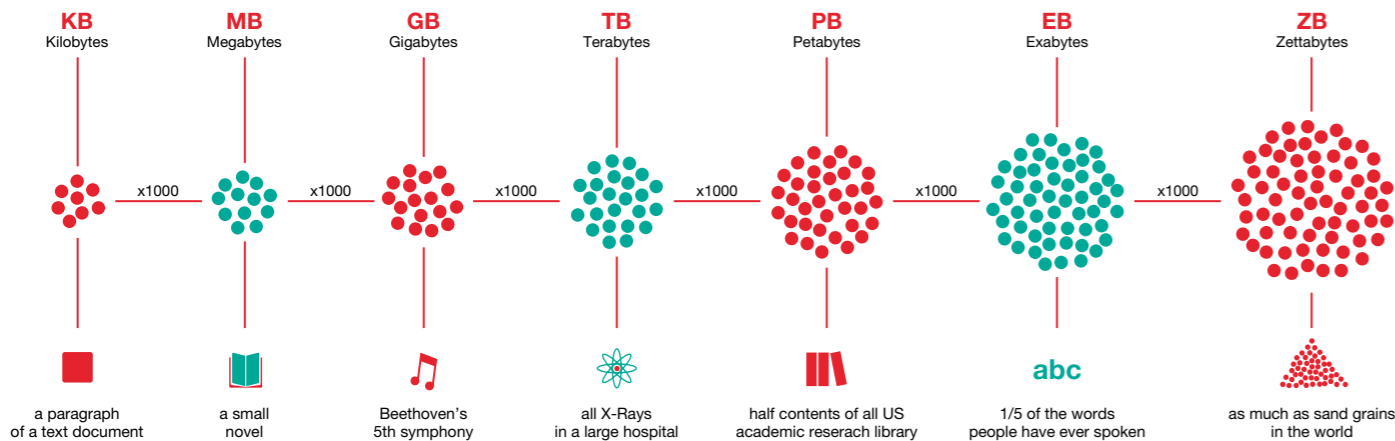
We are looking for a broad range of businesses, community organisations, partners, innovators and investors to come forward to work with us on a series of ‘**challenge questions**’ based on key priority areas for Newham:

- **Creating learning opportunities, skills and jobs of the future**
- **Tackling climate change**
- **Developing the data sector**

That’s why we are launching an open ‘**Call to Action**’ to cultivate partnerships to leverage the untapped potential of the data sector in Newham in response to these challenges we face. Our Call to Action sets out a series of challenge questions, detailed further in this document, where we will:

- **Lean into ideas that will support our Towards a Better Newham recovery mission, which prioritises the health, wellbeing and happiness of our residents.**
- **Prioritise ideas that help to deliver our priority outcomes, feasible to deliver and are financially sustainable.**
- **Work with ideas contributors over a 6-12 month period.**

How big is a zettabyte?



We are inviting you to submit your ideas relating to any of our three challenge areas, and if you are ready for action, send us a 500-word summary via newhamsparks@newham.gov.uk by the closing deadline date 30 November 2021.

¹ Statista, 2021 ‘Volume of data/information created, captured, copied, and consumed worldwide from 2010 to 2025’. See: <https://www.statista.com/statistics/871513/worldwide-data-created/>.

² London Borough of Newham, 2020 ‘Inclusive Economy Strategy 2020 – 2030’. See: <https://mgov.newham.gov.uk/documents/s133932/Appendix%20A%20The%20Newham%20Inclusive%20Economy%20Strategy.pdf>.

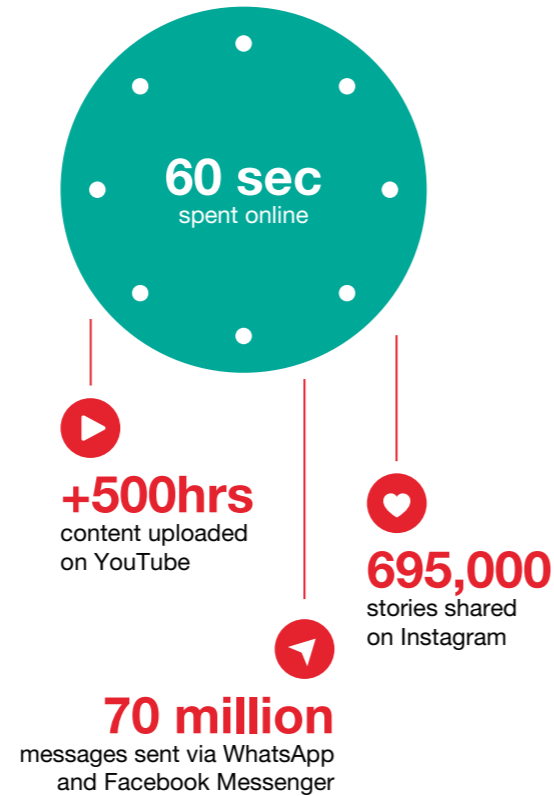
³ London Borough of Newham, 2020 ‘Towards a Better Newham: Covid-19 Recovery Strategy’. See: <https://www.newham.gov.uk/downloads/file/3035/towards-a-better-newham-strategy>.

THE DATA ADVANTAGE

Data is shaping the future of humanity, and the data economy is facilitating scientific and medical research, as well as driving rapid advances in machine learning, artificial intelligence and automation. It is making societies more productive and helping to improve the delivery of public services, enhancing transparency and promoting accountability.

As such, the effective use of data and data-driven technologies can make significant contributions to society: helping to save lives, make vital public services more efficient and effective, and enabling social connections across the world. Everyday there are new examples of data-driven technology being used for public good. Electric vehicles are contributing to cleaner air as part of wider sustainable transport agendas; Transport for London is freely releasing Open data for developers to use in their software and services to support the movement of people and goods in smarter, greener and more efficient ways.

A day in a life of data



The NHS is using Virtual Reality (VR) to train clinicians; data sharing has been instrumental in creating Covid-19 vaccines and in response to the pandemic, there has been a digital surge in the adoption of data-driven technology and infrastructures.

Arguably, data is now the driving force of the world's modern economies reflecting the expansion of the digital economy globally and the changing competitive landscape amongst countries.⁴ Driven by rapid reductions in the cost of the communication, the digital – and data - economy holds out the promise of dramatic increases in productivity. The experience of Covid-19 has also led to an acceleration in technological innovation, promoted in national recovery strategies to boost global productivity as countries recover from the economic impact of the pandemic.



⁴ UN Frontier Technology Quarter, 2019 'Data Economy: Radical transformation or dystopia?'. See: https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/FTQ_1_Jan_2019.pdf.

INTERNATIONAL PROMINENCE OF DATA

As the power source for today’s businesses and technologies, data has the potential to ignite unparalleled progress for people and the planet – from innovations in digital identity to informing pandemic response and even getting us closer to net-zero climate goals.

Yet, while both supply and demand for data are at an all-time high, we are missing out on opportunities to use data for better outcomes. Why? Because the data

ecosystem is a complex, fragile network of relationships and stakeholders, and like any strong relationship, these connections require trust.

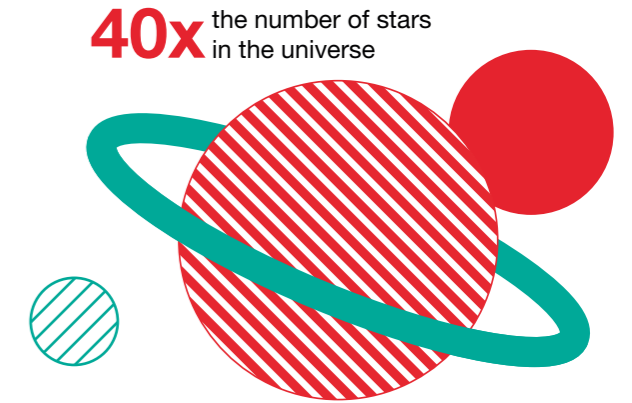
The **World Economic Forum** has highlighted the ‘data-hungry’ nature of emerging technologies and the need for governments to develop regulation that keeps pace with advances in technology, assuring the safety and security of data without stifling innovation.⁵



Internationally, the **OECD** has highlighted the growing importance of data as a social and economic resource.⁶ Countries like Estonia and Singapore have been leading development of the use of data-led technology to innovate government services; with Estonia one of the most digitally advanced countries in the world, where 99 percent of its public services are online and it was the first country in the world to introduce digital citizenship and e-residency. Singapore is developing a Whole-of-Government Internet of Things (IoT) infrastructure.

Countries around the world are seeking to create economic growth through technology. China plans to become the global leader in Artificial Intelligence, creating an industry worth \$150bn;⁷ and the United States recently announced \$15bn investment in electric vehicle infrastructure, buses and transit, and \$65bn investment in broadband as part of its Covid-19 recovery agenda.⁸

Number of bytes in the virtual universe in 2021



⁵ World Economic Forum, 2021 ‘Shaping the Future of Technology Governance: Data Policy’. See: <https://www.weforum.org/platforms/shaping-the-future-of-technology-governance-data-policy>.

⁶ OECD, 2019 ‘Measuring the Digital Transformation: A roadmap for the future’ <https://www.oecd.org/digital/measuring-the-digital-transformation-9789264311992-en.htm>.

⁷ Goldman Sachs Equity Research, 2017 ‘China’s Rise in Artificial Intelligence’. See: <https://knowen-production.s3.amazonaws.com/uploads/attachment/file/3075/China%2BRise%2Bin%2BAI.pdf>.

⁸ White House, 2021 ‘FACT SHEET: President Biden Announces Support for the Bipartisan Infrastructure Framework’. See: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/24/fact-sheet-president-biden-announces-support-for-the-bipartisan-infrastructure-framework/>.

THE DATA AND DIGITAL DIVIDE

However, while it is boosting productivity for some, and eroding old sources of advantage for others, the digital – and data – economy is also concentrating market power and economic gains in fewer larger companies. Badly managed, the result will be increased job insecurity, further polarisation in income inequality and a growing divide between the ‘high-skill haves’ and ‘low-skill have-nots’ leading to social instability. The **World Bank** cautions that *‘the resulting income gains might not be equitably distributed, partly because of the possible effects of innovation on employment’*.

Through its analysis, it found that employment declined in 70 percent of emerging markets and developing economies during the period 1980 - 2018; and in 90 percent of advanced economies - with the largest negative effects occurring in economies where employment was concentrated in industries more open to labour-saving innovation. Consequently, the World Bank emphasises *‘the importance of retraining programs and effective social safety nets to lower transition costs for workers displaced by technology advancements’*.⁹



Therefore the ability to maximise the benefits of the digital economy, and minimise its negative social costs, also depends on public policy choices related to workforce skills, training and flexibility; as well as income support measures that enable working-age populations to adapt in response to the advances of new technology.

Done right, the digital economy holds out the promise of higher productivity, with the potential for low and middle-income economies to leapfrog along the development process. Done wrong, the digital divide¹⁰ will exacerbate income polarization in high-income economies, and make it harder for the rest to tap the mainstream of global opportunity.

The digital divide is a UK issue as well as an international one. Also understood as ‘digital exclusion’, it relates to the availability (or not) of technology, network coverage and having the digital skills. Additionally, digital exclusion is considered ‘a new form of social deprivation, exacerbated by and contributing to existing lines of inequality and poverty, and as the world gets smarter, the divide gets wider’.¹¹ Therefore, it is crucial that data and digital innovation also addresses issues of exclusion.

¹⁰ Originally defined in the context of who has access (connected to the internet or not), the term digital divide extends to those who benefit from information and communications technologies and those who do not.

¹¹ Cambridge University Centre for Housing and Planning Research, 2020 ‘The Digital Divide: what does the research tell us’. See: https://www.cchpr.landecon.cam.ac.uk/system/files/documents/digital_divide_research.pdf.

⁹ World Bank, 2020 ‘Global Productivity: Trends, Drivers, Policies’. See: <https://www.worldbank.org/en/research/publication/global-productivity>.

The **Office for National Statistics (ONS)** measures the scale of digital exclusion and estimates that 5.3 million adults in the UK, 10 per cent of the population, have either never used the internet or accessed it (defined as internet non-users over a three-month period).¹² Access to the internet is one component of digital exclusion, but it also relates to a spectrum of digital engagement - or non-engagement - from internet access, digital skills and being able to make use of online resources for beneficial outcomes.

In the UK, the **Department for Education** has identified five categories of 'Essential Digital Skills' for life and work, affecting people of all ages.¹³ The ONS has estimated that 4.3 million people in the UK (8 percent of the population), have no basic digital skills; with a further 6.4 million adults (12 percent) only having limited abilities online.

The Good Things Foundation estimates that there are over eleven million people who lack the basic digital skills they need to participate fully in our digital economy, harming those who are left behind and that by 2028, almost £22 billion of value will be lost as a direct result of digital exclusion.¹⁴

Those that are digitally excluded are also exposed to other forms of economic or social inequalities: likely to be in lower income households, experience language barriers, have disabilities and other health conditions. Moreover, Covid-19 has further exacerbated the impact of digital exclusion. While the pandemic has hugely increased working, learning and interacting online, it has widened the gap for those who lack digital skills or access, excluding them even further.



In Newham, with higher than average lower income households, we recognise that digital exclusion will be a characteristic for sections of our resident community, including young people, which is why we have initiated a number of programmes as part of our 'digital inclusion' strategy. These include:

- Establishing a 'device gifting and borrowing service' in all our libraries in the borough to help support digital-excluded residents. This includes six months of free access to wifi.
- Providing 30 refugee families living in Newham with access to devices, in partnership with the refugee and migrants advocacy group care4calais.org.
- Offering digital literacy sessions for individuals and groups, as well as free online learning modules.
- Distributing 300 devices to young people in the borough who faced digital-exclusion during the Covid-19 pandemic.

SOLID COGNITIVE SKILLS COUPLED WITH PROBLEM-SOLVING SKILLS [...] ARE KEY FOR ENABLING EFFECTIVE USE OF DIGITAL TECHNOLOGIES AND PROSPERING IN THE DIGITAL SOCIETY

It is evident that technological progress is a major driver of productivity, growth and prosperity, but also one that can disrupt the workforce, with an increasing number of jobs being lost to automation, and others changing in their nature and tasks. Conversely, it will drive the creation of new sectors and innovations, such as artificial intelligence (AI), the Internet of Things (IoT) or big data development, leading to new occupations and jobs - including those that do not currently exist. That is why an ongoing focus on increasing the skills of the workforce through resourcing skills and continuous professional training programmes, as part of wider life-long learning strategies, is critically important.¹⁵

It also requires a step-change in education to increase data and digital skills from early years onwards, particularly in the development of solid cognitive skills coupled with the ability to solve problems, learn and think creatively - all of which are key to adapting to the scale, speed and scope of digital transformations occurring. In its analysis, the **OECD** highlighted how 'solid cognitive skills coupled with problem-solving skills and other competencies necessary to carry out tasks in online environments are key for enabling effective use of digital technologies and prospering in the digital society'.¹⁶

¹² Office for National Statistics (ONS), 2019 'Internet Access: households and individuals'. See: <https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/bulletins/internetaccesshouseholdsandindividuals/2019>.

¹³ Department for Education, 2018 'Essential Digital Skills Framework'. See: <https://www.gov.uk/government/publications/essential-digital-skills-framework>.

¹⁴ The Good Things Foundation, 2018 'The Economic Impact of Digital Inclusion in the UK'. See: <https://www.goodthingsfoundation.org/insights/economic-impact-digital-inclusion/>.

¹⁵Government Office for Science, 2016 'Lifelong digital skills development, current picture and future challenges'. See: <https://www.gov.uk/government/publications/skills-and-lifelong-learning-meeting-digital-skills-demand>.

¹⁶OECD, 2020 'Digital Economy Outlook'. See: https://www.oecd-ilibrary.org/science-and-technology/oecd-digital-economy-outlook-2020_bb167041-en.

Research by the **Learning and Work Institute** also found that only 48 percent of employers believe that young people are leaving full-time education with the digital skills needed for employment, and that only half of employers are able to provide the training needed.¹⁷

Enabling people to become data literate and enhancing learning pathways, skills and training programmes to boost productivity and drive inclusive growth is an urgent task. Through Newham Sparks, we have plans to establish an 'Institute of Data' (or similar) to develop data related curriculum and training programmes to address the skills gap. For example, with the widespread use of digital technologies, alternative training channels such as massive open online courses (MOOCs) have become popular, especially among younger people. MOOCs can help reduce the skills gap that has emerged as digital transformation changes skills needs.



Through Newham Sparks, we are involving our young people in our work, as part of our ambitions for them to become leaders within the growing data and digital sectors in London; and seize the employment opportunities that will emerge. We have already co-created the **Newham Youth Map**, which digitally maps services and amenities available for young people across the borough. All our Youth Zones are digitally accessible as well, providing a range of Youth Empowerment activities, support and

advocacy online. Additionally, through our mental health and wellbeing Headstart service for young people, we offer online access to professional counsellors and a support community via the kooth.org platform.¹⁸

¹⁷ Learning and Work Institute, 2021 'Disconnected? The Digital Skills Gap'. See: <https://learningandwork.org.uk/resources/research-and-reports/disconnected-exploring-the-digital-skills-gap/>.

¹⁸ See: www.headstartnewham.co.uk and www.kooth.com.

TRUST IN DATA AND DATA FOR THE PUBLIC GOOD

For citizens, data is also raising concerns about trust, privacy and security, as well as the equitable distribution of gains from data. For governments, data is creating new social and political dynamics and changing the relationship with civil society; challenging them to find the right balance between providing incentives to innovation, supporting a healthy competition in the data economy, and defending the rights and interests of individuals and consumers.

While data-intensive technologies such as Artificial Intelligence (AI) and the Internet of Things (IoT) offer greater consumer choice and personalisation, at the same time, they pose new risks to safety, privacy and security, and may discriminate against disadvantaged groups such as women and ethnic minorities. The OECD highlights that in 2019, over 80 percent of OECD countries reported ‘AI and big data analytics as the biggest challenges to privacy and personal data protection, followed closely by the IoT and biometrics’.¹⁹

Consequently, governments and technology companies are increasingly responding to the need to protect citizens’ rights and privacy, and promoting data for the public good. There is growing recognition that the social and economic value of data can only be sufficiently realised if there is a fundamental rebalance that gives people and citizens greater control of their personal data.²⁰

The **National Infrastructure Commission (NIC)** has also highlighted the importance of ‘**data for the public good**’, which the UK government is progressing across a range of strategies and approaches.²¹ For instance, the scope of the recently appointed new **Information Commissioner** will include empowering people to use data to achieve ‘economic and social goals’ as well as maintaining privacy; and working with the Open Data Institute to enhance trust in the use of data and data practices by organisations.²²

OVER 80 PERCENT OF OECD COUNTRIES REPORTED AI AND BIG DATA ANALYTICS AS THE BIGGEST CHALLENGES TO PRIVACY AND PERSONAL DATA PROTECTION

Additionally, the Centre for Data Ethics and Innovation (CDEI) recently published its two-year review highlighting three areas requiring urgent focus by the government and the sector, namely:

- Developing and maintaining accountability when deploying data-driven technologies.
- Addressing the transparency and explainability of data-driven systems.
- Improving access to high quality data in a way that is trustworthy.

The CDEI intends to integrate these into three priority themes that will underpin its work in the coming year, specifically focusing on responsible data sharing and governance; supporting public sector innovation in the use of Artificial Intelligence (AI) and data; and developing the foundations of a robust ‘AI assurance’ ecosystem in the UK data and digital sector.²³

However, as well as ‘prioritising regulatory certainty in the use of data to build trust’, the UK government has announced that it will seek to ‘lower compliance costs for businesses, and remove unnecessary barriers to international data flows which could impede innovation and growth for UK companies’.²⁴

Later this year, the government will be publishing its policy framework to enable better data availability across the wider economy; as well as its National Artificial Intelligence (AI) Strategy - setting out how it intends to build on the UK’s early lead in AI and support the responsible adoption of AI by businesses and the public sector.²⁵ This could mean rewriting or deleting EU data protection regulation as part of the government’s post-Brexit reforms.

There is a growing **global movement of data scientists** providing their skills and capabilities to help non-profits

optimise social impact and optimising the use of ‘data in the service of humanity’. From helping vulnerable families access public benefits; to saving water and money during droughts; and supporting refugees to find homes and jobs faster – the social impact of data is boundless. For example Datakind, has connected their network of 30,000 expert volunteer data scientists and engineers to more than 250 projects around the world since it was founded in 2011.²⁶ Most recently, data.org been launched as a platform for partnerships that aims to build the field of data science for social impact, and to support the democratisation of the use of data science to tackle social challenges and improve lives across the globe.²⁷

Data, when harnessed correctly, is a major force for good. As a Council, we want to be at the forefront of using data to deliver social impact for our residents in Newham through public service improvements, and working collaboratively through business, voluntary and community sector partnerships to enable lasting and transformative change in our borough and for our people. It is also vital to protect citizens’ rights and privacy and we recognise that without fully ensuring the safety, security and protection of personal data we will not be able to unlock the true social and economic value of the data sector.

¹⁹ OECD, 2020 ‘Digital Economy Outlook’. See: https://www.oecd-ilibrary.org/science-and-technology/oecd-digital-economy-outlook-2020_bb167041-en.

²⁰ Nesta, 2015 ‘Data for Good’. See: <https://www.nesta.org.uk/report/data-for-good/>.

²¹ National Infrastructure Commission, 2019 ‘Data for the Public Good’. See: <https://nic.org.uk/app/uploads/Data-for-the-Public-Good-NIC-Report.pdf>.

²² HM Government, 2021 ‘Government response to the UK National Data Strategy consultation’. See: <https://www.gov.uk/government/consultations/uk-national-data-strategy-nds-consultation/outcome/government-response-to-the-consultation-on-the-national-data-strategy>.

²³ Centre for Data Ethics and Innovation, 2021 ‘Two-Year Review’. See: <https://www.gov.uk/government/publications/centre-for-data-ethics-and-innovation-two-year-review>.

²⁴ Department for Business, Energy and Industrial Strategy, 2021 ‘UK Innovation Strategy: leading the future by creating it’. See: <https://www.gov.uk/government/publications/uk-innovation-strategy-leading-the-future-by-creating-it>.

²⁵ Office for Artificial Intelligence, 2021. See: <https://www.gov.uk/government/news/new-strategy-to-unleash-the-transformational-power-of-artificial-intelligence>.

²⁶ See <https://www.datakind.org/>.

²⁷ See <https://data.org/>.

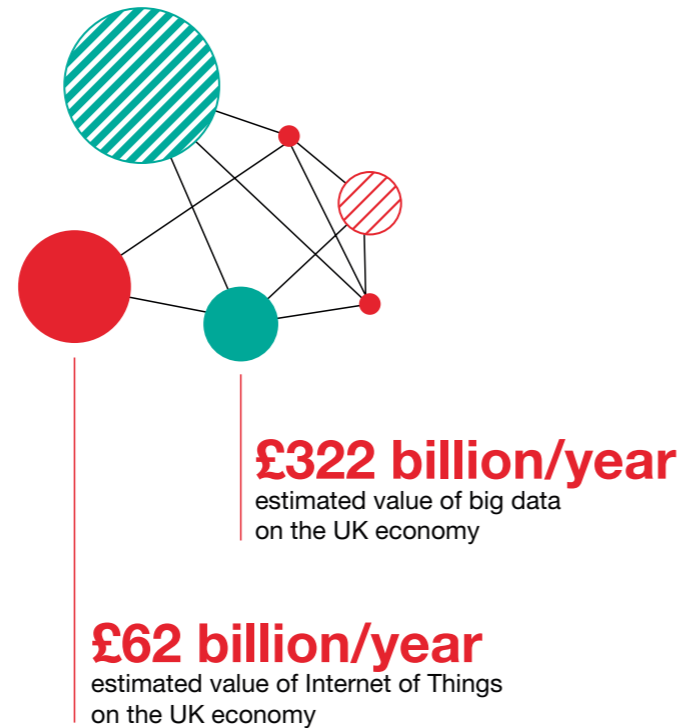
UK: THE WORLD'S NUMBER ONE DATA DESTINATION

Through the **National Data Strategy**, the UK government intends to make Britain “the world’s number one data destination”, unlocking its full potential and unleashing the value of data for the benefit of country.²⁸ Published in December 2020, the strategy is indicative of the growing ‘competitive advantage’ dividend that governments around the world are placing on data. While acknowledging that the vast potential of public and privately held data in the UK has yet to be realised, the strategy identifies five potential opportunities for data to transform the UK:

- Boosting productivity and trade
- Supporting new businesses and jobs
- Increasing the speed, efficiency and scope of scientific research
- Driving better delivery of policy and public services, and
- Creating a fairer society for all

Coupled with the recent UK Innovation Strategy, the government’s vision is to make the UK a global hub for innovation by 2035, and ‘capitalising on data’ lies at the heart of it.

Data growth impact on London & UK economics



LONDON AND THE NEW CITY DEAL FOR DATA

In the Capital, the Mayor of London is driving a ‘**new City Deal for Data**’ to use data in the public sector to improve public services for Londoners. Enabled by the **London Office of Technology and Innovation (LOTI)**, public sector organisations are collaborating in new ways to use data to tackle our biggest challenges. To support these efforts, the **London Data Commission** brought together the public sector and private sector to ask the big questions about how London should best use its data and become the leading city in the world for the data sector.²⁹

It made a series of recommendations, including the establishment of the **London Data Board**, co-chaired by the Chief Digital Officer for London, to explore the impact of disruptive innovation in the Capital. Additionally, as an evolution of the Smart London Board, the London Data Board will convene London leadership from the private, public, academic and third sectors to enhance the governance of the data sector; and promote the adoption of the **Data for London** framework so that the Capital can become a leader across the following areas:

- 1. Deliver data-driven insights:** Boosting the use of data currently available in London and supporting the creation of an internationally leading city data platform to bring together anonymised data from the public, private and third sector to deliver clearer insights into the city’s challenges.
- 2. Build trust:** Safeguarding the anonymity and security of data from individuals, businesses and groups via a London Data Charter that helps maintain the highest standards of data management and transparency.

3. Harness new technologies: Promoting the use cases and testing of new data technologies such as 5G, artificial intelligence, the Internet of Things (IoT), digital twinning, blockchain and analytics, and helping ensure these innovations benefit all Londoners.

4. Be a strong coherent voice: Providing a voice for London in discussions with government and other cities about how cities can benefit from the use of their data.

Over the next four years, the London Data Board will create the conditions for the capital to become the preeminent region in driving the UK’s data economy ambitions; and promote the adoption of the **London Data Charter** anchored in clear data-sharing principals to:

- Deliver Benefit for Londoners
- Drive Innovation
- Protect Privacy
- Share learning with others
- Create Scalable and Sustainable Solutions
- Be as Open as Possible.

Moreover, the London Data Board will accelerate plans to build a digital capital to ‘help tackle London’s biggest challenges, lead to better policy and decision-making and improve the lives of Londoners’. It is in this context that Newham Council is launching Newham Sparks.

²⁸ HM Government, 2020 ‘UK National Data Strategy’. See: <https://www.gov.uk/government/publications/uk-national-data-strategy>.

²⁹ London First London Data Commission, 2020 ‘Data for London’. See: https://www.londonfirst.co.uk/sites/default/files/documents/2020-09/LDCReport_.pdf.

NEWHAM SPARKS

Our Newham Sparks initiative sits within the wider strategic landscape, which acknowledges the value of data and data-led technology, as set out in the UK National Data Strategy and corresponding policy ambitions published by the UK government and City Hall.

Newham Council recognises that over recent years data has emerged as a distinct sector within the wider digital economy, reflecting the prominence of the data economy internationally and its potential in driving productivity and growth. While businesses have been building and deploying data capabilities, the public and third sectors are still behind. There are numerous examples that show the enormous potential of data for social impact, which is far from fully realised.

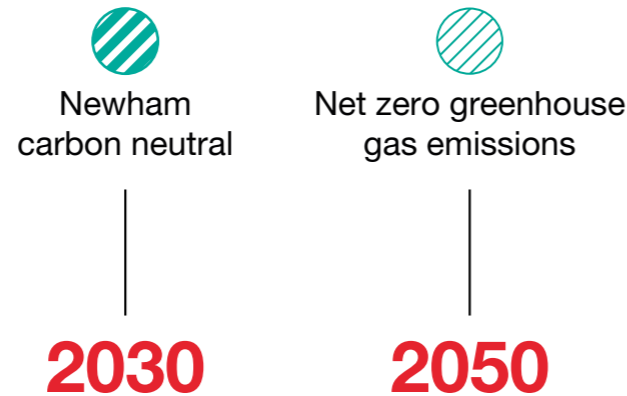


NEWHAM COUNCIL: DATA AND DIGITAL TRANSFORMATION

Here at Newham Council we are already transforming how we work by maximising our use of data and technology for the public good to achieve our inclusive economy and Towards a Better Newham ambitions. We were one of the first councils to introduce a 'data warehouse' capability connecting anonymised data across multiple systems, and using data visualisation and data analytics to understand and predict key trends and emerging issues. For instance, we have successfully used data analytics for homelessness prevention and rent collection.

Newham has delivered a number of other projects using technology and data to improve Newham as a place and public provider of services. Our 'Love Newham' app makes it easier for residents to report environmental crime such as graffiti, fly tipping and dog fouling. We have also deployed technology and data through:

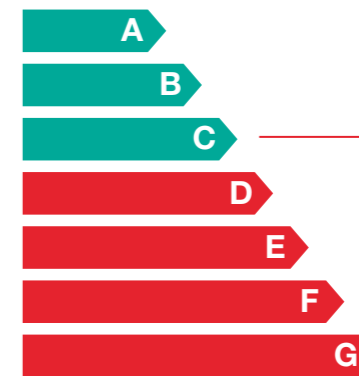
- The use of LED lighting
- Retrofitting housing with Smart devices
- Managing traffic across our Low Traffic Neighbourhoods zones and Healthy Schools Streets.
- Supporting our residents in the private rented sector, through our Private Landlord Licencing Scheme and our recent innovative pilot in collaboration with Generation Rent
- Our Public Health and Adult Social Care collaborations with local health partners. For instance, we are using assistive technology to support elderly residents on the edge of care to be able to live in their homes safely so that they can maintain independence for as long as possible.



80 charging points
for electric vehicle to be installed



Data and data-driven interventions has also played an important role in our response to the Covid-19 pandemic, helping to protect our most vulnerable residents and shape public health interventions. For instance, data was used to identify and support vulnerable people at heightened risk to Covid-19 due to health co-morbidities, social isolation or because they lived in one of the borough's high number of multi-generational households.



100%
of council housing stock
will meet Environmental
Performance certificate C
or higher by 2025

Data will also be key to the future way the Council operates as we reshape our service delivery on social value outcomes for residents and in response to their lived experiences in the borough, rather than on internal structures or systems. We will be maximising our use of all the opportunities offered by new technology, digital infrastructure and use of data for the public good to:

- Enable the use of technology to put people at the heart of services, through experiences that are human centred and empowering by design.

- Use data analytics and insights to understand complex social challenges, and join-up services across statutory organisations.

Going beyond the traditional 'digital transformation' that organisations ordinarily undertake, at Newham Council we will be achieving strategic change through deploying digital transformation in ways that deliver enhanced financial

performance and a better experience for residents (as citizens and consumers) as well as our employees. It is part of our plan to create a Council fit for purpose well into the 21st century in our quest to deliver exemplary public services; and engage our citizens in the democratic process to improve and sustain Newham as a place of inclusive and sustainable growth.

NEWHAM SPARKS: DATA LEADERSHIP IN #LOCALGOV DIGITAL



As a local authority, we have an important role to play in cultivating the data and digital sectors locally. Newham Sparks is our statement of ambition to unlock the value of data and digital in everything we do to benefit:

- **Our People: Newham's residents and communities**
- **Our Borough & Place: Environment, physical infrastructure and inclusive growth**
- **Our Council: How we work and deliver for residents**

Newham Sparks signals our ambition to become a public-sector data leader through:

- **Improving public service delivery through the use of technology and data**
- **Promoting responsible data use and availability**
- **Harnessing partnerships to create foundations for growth and the skills required for the future.**

The Council has also established a collaboration with **University College London (UCL)**, working with multi-disciplinary teams that will be located at its new **UCL East** campus at the East Bank, London's new cultural and education quarter on the Olympic Park in Newham.

The UCL collaboration includes a research commission with its Institute of Global Prosperity, which will inform Newham Sparks future programme of work. The research inquiry is exploring the scale of opportunity of the data economy in London, specifically

- Testing the hypothesis that the 'Data sector' is an emergent/new growth sector in and of itself.
- Understanding and estimating the market potential for 'Data as a sector' in relation to Gross Value Added (GVA), employment opportunities and skill requirements through economic and comparative analysis; as well as professionalisation opportunities.³⁰
- Exploring the societal value that data can generate for citizens and communities.

Citizens' rights and privacy regarding data also forms a key part of our research collaboration with UCL East.

This exciting partnership between Newham Council and UCL East is also initiating further collaborations, which are underway with The Bartlett Faculty on climate emergency, retrofit and housing; and UCL's Health of the Public Virtual School on health inequality.

³⁰ Professionalisation opportunities refers to all the 'data professional' roles that are being created in the market e.g. data scientist, data engineer, data architect, artificial intelligence engineer and required sector specific chartered or accreditation standards.

NEWHAM SPARKS: CALL TO ACTION

WE ARE

Launching an open call to cultivate partnerships to deliver against our **priority challenges** to leverage the untapped potential of the data sector.

We are looking for a broad range of businesses, community organisations, partners, innovators and investors to come forward to work with us on a series of ‘challenge questions’ based on key priority areas for Newham:

- I. **Creating learning opportunities, skills and jobs of the future**
- II. **Tackling climate change**
- III. **Developing the data sector**

WE HAVE

Identified the following challenge areas and ‘challenge questions’ and are keen to hear from organisations already working in these areas, as well as those with new ideas that can create meaningful social change.

- I. **Creating learning opportunities, skills and jobs of the future**

A clear data skills and education gap exists across the UK. We need a step change in learning to ensure that all citizens are ‘data literate’ and that we increase the skills and knowledge needed to access the jobs of tomorrow, many of which currently won’t even have been imagined:

- **How could we create learning opportunities that increase data literacy and knowledge?**
- **How could private companies and education bodies work together to close the data skills gap?**

- **How could we create a data curriculum that delivers both vocational and academic education through a broad range of partners**

II. Tackling climate change

The climate emergency is the biggest challenge of our lifetime. We need radical innovation to help us become a zero-carbon borough:

- **How could we use data and digital to tackle climate change?**
- **How could different sectors work together to tackle climate change in Newham?**
- **How could we ensure that growth in the data and digital sectors is as green as possible?**

III. Developing the data sector in Newham

Data represents a high-growth sector for Newham. We want to support the sector to develop and ensure that this growth benefits the wider community:

- **How can we ensure that growth in the data and digital sectors tackles inequality?**
- **How do we support growth of the data and digital sectors in Newham, creating the right conditions for the data sector to flourish?**
- **How can we best respond to the challenge of balancing data rights for citizens in light of the growing call for enhanced data governance by companies and organisations? How can this be done in ways that enable innovation while instilling trust as citizens are increasingly using data in their daily lives?**



WE WELCOME

You submitting your ideas across one of the three challenges areas.

Ready for action? If so, drop us an email with a 500-word summary via newhamsparks@newham.gov.uk by the closing deadline date 30 November 2021.

NEWHAM SPARKS WILL:

- Lean into ideas that will support our Towards a Better Newham recovery mission, which prioritises the health, wellbeing and happiness of our residents.
- Prioritise ideas that help to develop our priority outcomes, are feasible to deliver and are financially sustainable.
- Work with ideas contributors over a 6-12 month period.

Newham Sparks embraces the principals of co-production and co-design with residents and partners, reflecting the Council’s leadership in participatory democracy. Earlier this year, we established the UK’s first permanent Citizen Assembly involving residents in shaping our response to climate emergency and ‘greening the borough’; and initiating the country’s largest participatory budget programme with £1.6m allocated to neighbourhood based projects co-designed with residents over two years.

Through the Newham Sparks **Call To Action**, prioritised submissions will developed with local residents and tested with members of our Citizens’ Assembly.



NEWHAM SPARKS: OUR FUTURE BLUEPRINT FOR NEWHAM

1 Alice Billings House Creative Hub

Alice Billings House is a Grade-II listed building previously used as a film set for TV programmes that is being converted into a creative hub. Funding by the council will create 30 studios to be let at affordable rents to creatives and start-ups in the visual performance and digital arts. The space will also include teaching areas and a community café. When open, the building will host exhibitions and events, residencies, wellbeing sessions and interactive activities for young people.

2 Canning Town and Custom House regeneration

A £3.7 billion project is changing Canning Town and Custom House for the better, physically, socially and economically, and work is well underway. The regeneration programme includes 10,000 new homes, of which 3,500 are already completed or on site. The area will benefit from a new town centre, leisure, health and community facilities. The project includes a wide programme of resident engagement on the proposals.

3 Our 15 minute neighbourhoods (Green Street)

Newham is focusing on the borough's six town centres and 13 local high streets as the focus of investment and revival, so that they become centres of community and civic activity as well as commerce and business. Inspired by Paris, we will transform these into '15-minute neighbourhoods', enabling people to access all social, civic and economic essentials within a 15-minute walk or cycle ride. Green Street and Queen's Market are pioneering this approach.

4 East Bank Cultural Hub

East Bank is a new powerhouse for innovation, creativity and learning within the Queen Elizabeth Olympic Park. World-renowned universities UCL (University College London) and UAL's (University of the Arts London) College of Fashion will join the global cultural brands of the BBC, Sadler's Wells and the V&A to create a unique cultural hub.

5 Royal Docks Enterprise Zone

The Royal Docks is London's only Enterprise Zone, one of only 48 in the country. As a key part of the government's industrial strategy the zone provides tax breaks and other business incentives within the zone. Money raised from business rates is reinvested back into the zone, helping to attract substantial investment into the area. Around 35,000 jobs and 4,000 homes are forecast to be created as a result of the Royal Docks Enterprise Zone.

6 Mayor of London and City Hall Relocation

The Mayor of London and the Greater London Authority (GLA) are relocating to the Crystal building in the historic Royal Docks, which is also designated as two of Newham's Digital Districts underway in collaboration with the GLA. The move of City Hall to the borough will create more jobs for local residents, and brings the heart of London government to Newham.

7 Newham Youth Zones

Our nine Newham Youth Zones, including our flagship specialist Performing Arts Youth Zone in Stratford and three commissioned in collaboration with the voluntary sector also provide borough-wide inclusive SEND offer across all locations. Our Youth Empowerment services provide enriching spaces and activities, including online programmes, for our young people across the borough to reach their potential, learn and thrive.

8 Creation of a new data corridor

Through Newham Sparks we plan to create a new data corridor for London which will be at the centre of the data economy. This part of the borough has been identified for the development of the data and digital sectors, including space for data centres and emerging technology.

9 TwelveTrees Park development and open space Wifi

TwelveTrees Park is a new development of over 3,800 homes built around 12 acres of open green space, landscaped gardens. The development features a WIFI enabled park. Located minutes from West Ham station, it will be one of the best connected developments in London.

10 Carpenters Estate Regeneration

Carpenters Estate covers 23 acres in the heart of Stratford and is undergoing one of the most ambitious and largest estate restoration and regeneration programmes anywhere in London. Led by the Council's housing delivery company, Populo Living, future plans for the estate have been co-created with local residents through an extensive programme of consultation, and will lead to at least 50 percent council homes for Newham residents, new community facilities, and high quality sustainable green homes.

11 Electric Vehicle Charging

Newham Council is expanding the availability of electric vehicle charging points across the borough, with an initial installation of 80 new onstreet charging points, supplied by Allego. These are part of the Council's wider sustainable transport plans to improve air quality in the borough, encourage walking and cycling, and respond to the Climate Emergency.

12 Queen Elizabeth Olympic Park Innovation Zone

Ten years on from the 2012 Olympic games, the Queen Elizabeth Olympic Park and surrounding area has become an established innovation zone, and is also designated as two of Newham's Digital Districts underway in collaboration with the GLA. Hosting a range of research and development activities including driverless car trials, advancements in assistive technology and supporting startups; the area will also be the location of East Bank: London's new quarter for innovation, creativity, culture and learning at the Queen Elizabeth Olympic Park – bringing together Sadler's Wells, BBC Music and the V&A, as well as University College London and University of the Arts London College of Fashion.

ABOUT NEWHAM



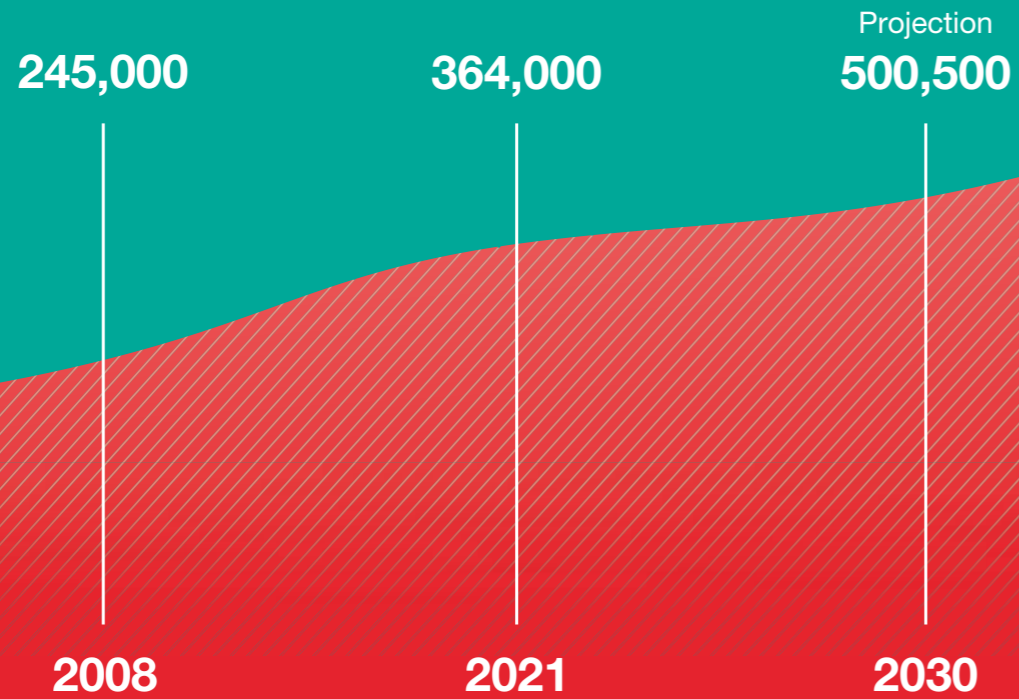


NEWHAM AND ITS PEOPLE

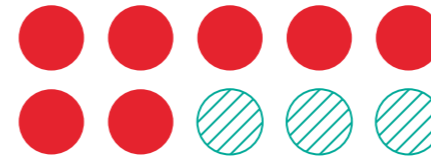
- Currently, the borough is home to 364,000 people, with the population projected to rise to **over half a million by 2050**.
- Newham has one of the most entrepreneurial, diverse, and young populations in the UK, with over one-third of the population under 25 years old.
- The population is unique in many respects. It is one of the most diverse local authorities in the country and highly international: 72 percent of our residents are from Black, Asian and Ethnic Minority communities; 53 percent of Newham residents were born overseas vs. 36 percent across London; and 242 languages and dialects are spoken in the borough.
- Although Newham is a largely residential borough with many long-term residents, the proportion of people moving in and out of the borough is high.
- The borough has a large and relatively well skilled workforce, with 147,700 residents with NVQ Level 4 plus (including degree level) qualifications. This represents 59 percent of our population compared to 58.5 per cent in London, an increase of 45 percent in the last 5 years.
- In Newham, education is one of the borough's fastest growing sectors, contributing to £698m Gross Value Added (GVA) in 2019.³¹ Our schools have experienced unrivalled improvements over the past decade, with the number of schools rated 'outstanding' by Ofsted continuing to grow.

³¹ London Data Store, 2019 'Gross Value Added – Education by Local Authority'. See: <https://data.london.gov.uk/dataset/gross-value-added-and-gross-disposable-household-income>.

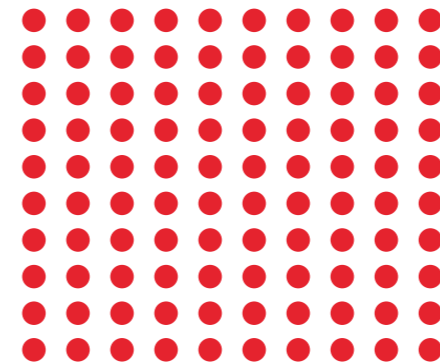
A growing borough



7 in 10 residents are from a non-white background



Over 100 languages are spoken in the borough

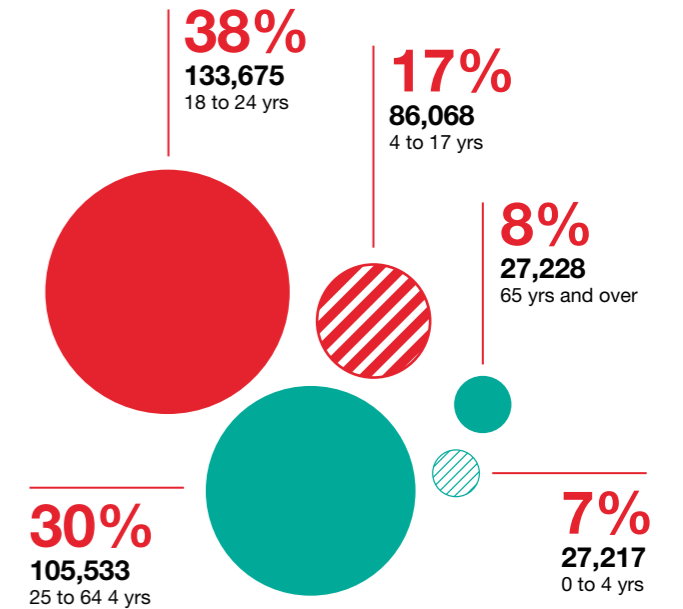


English, Bengali, Urdu and Gujarati are the most spoken languages



Newham age profile

32yrs Newham median age, 40yrs UK median age



NEWHAM AND ITS ECONOMY AT A GLANCE

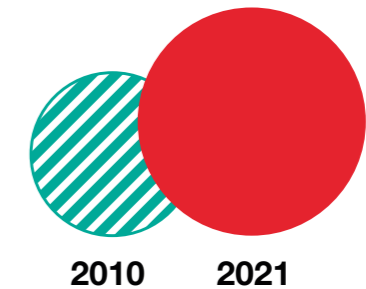


- Over the last decade, Newham has seen an unprecedented amount of external investment. In the 5 years prior to the start of the Covid-19 pandemic in the UK, only Hackney and the City of London experienced a higher rate of employment growth.
- In the same period, Newham’s business base increased at double the rate of London as a whole. In the main, it is a small business economy with relative low survival and scale up rates.
- Employment specialisms are largely in retail (partly reflecting the presence of Westfield Stratford) and manufacturing, warehousing and utilities and waste, (reflecting the ongoing industrial role of the economy).
- The Borough is home to a number of large employers which act as economic ‘anchors’, for example: the University of East London, Tate and Lyle, Excel, Newham University Hospital.

- Newham is also home to several designated industrial and office employment hubs. These vary in scale and nature: from the emerging office district at Stratford, to the large areas of London Strategic Industrial Location (SIL) in the south of the borough.
- The new London Plan identifies the borough as key in providing additional industrial capacity in the capital:
 - **Stratford** is designated as one of London’s metropolitan centres, acting as a retail, leisure and cultural hub for the City. The new London Plan identifies Stratford as a ‘CAZ overspill area’ by virtue of its connectivity and capacity.
 - **The Royal Docks Enterprise Zone and Beckton Riverside Opportunity Area** has a strong industrial heritage and contains significant designations of Strategic Industrial Location (SIL) land.
- Newham is well connected to central London and the south east, with speed and breadth of connections set to be enhanced by the opening of the Elizabeth Line.
- The Borough’s location and transport links means that its economy is heavily connected with the rest of London: accommodating activities serving the rest of the city, also acting as a net provider of employment.
- The largest employment sectors are public sector (public admin, education and health) and retail – before Covid-19, this equated to 47,000 jobs in total.
- Pre-Covid-19, Newham generated £7.1bn in GVA, supported 110,000 jobs (2 percent of the London economy) and was home to 14,000 businesses.

- Analysis undertaken for the Council in 2019 shows that high productivity sectors are currently under-represented in the economy: while 15 percent of jobs are higher value, knowledge economy related - 15,665 in total - is half the London average.
- Covid-19 exacerbated the economic challenges we face:
 - We have the biggest increase in claimant rates and highest number of people furloughed in London.
 - Some 30 percent of our school pupils are eligible for Free School Meals.
 - When the Universal Credit uplift is removed, 41 percent of residents in Newham will be affected.
 - When the government’s furlough scheme ends, 17,900 residents in Newham could potentially lose their jobs.
 - In the long term, up to 43,000 jobs at risk due to wider pandemic factors.

Newham GVA



+41%
increment over the last 10 years

NEWHAM'S INCLUSIVE ECONOMY MISSION

- Despite the decade long period of investment, growth and employment creation; and compounded by the Covid-19 pandemic, 40 percent of Newham's neighbourhoods are within the bottom 20 percent of most deprived areas in the UK.
- Additionally:
 - Over a quarter of our residents are paid below the London Living wage.
 - Our residents are the most over-indebted in London.
 - Our average rents represent 65 percent of average wages compared to 30 percent across the UK.
 - We have the highest overall level of homelessness in England.
- The imbalance between the top line economic performance and the economic experience of living in the borough is a significant driver of The Council's Inclusive Economy and Towards a Better Newham strategies.
- If Newham residents are not included in the borough's economic 'success', are we actually succeeding?
- That is why the Council has developed its Inclusive Economy strategy – as it became clear that enabling the long-term prosperity, wellbeing and happiness of the borough will in part, be dependent upon taking a new approach to tackling the inequalities that exist.
- The Council's Inclusive Economy strategy has a broader view of economic success in mind. Although jobs and output (GVA) are important, we see wellbeing, financial resilience, local participation, skills and a reduction in 'leakage' from our economy as equally important as we move towards a more 'Inclusive Economy' approach.
- We want to become the most economically inclusive borough in London, 'a beacon' which sets the standard for the capital. Our Inclusive Economy strategy helps us to:
 - Better understanding the challenges and opportunities our economy faces.
 - Recognise that we need solid social and community foundations if we are to create a genuinely inclusive economy.
 - Give every individual and business potential to achieve their potential, whether that is accessing higher value employment, gaining new skills or being more active in their community.
 - Be agile to the rapidly changing economic challenges and opportunities which impact our residents and businesses.
 - Understand what climate emergency means in the context of our economic strategy and recognising where growth can negatively impact upon our environmental principles and targets.
 - Support businesses to develop their economic and social purpose.
 - Be a borough where people innovate and try new things, be that in business or local service delivery.
 - Ensure that external investment brings maximum economic benefit, minimising leakage from Newham economy.
 - Recognise the importance of our local micro-economies in the borough's economic story.



- Our Inclusive Economy strategy is underpinned by a key policy reorientation from a focus upon 'inclusive growth' to one of 'inclusive economy'. This is a key tenet of Community Wealth Building providing the policy foundations upon which we can better balance the pursuit of external top down investment with a long-term commitment to address the underlying causes of inequality, exclusion and challenges.

NEWHAM AND THE FUTURE



- Over the next two decades, Newham will continue to act as a focal point for growth and investment within London.
- The Newham Local Plan projects the delivery of at least 43,000, additional homes and 60,000 additional jobs by 2033, making the borough one of the most significant growth boroughs in London.
- Despite the economic impact of Covid-19, the Borough's economic diversification is expected to continue: while local and London policy designations continue to prioritise the supply of industrial space and capacity in the Borough.
- Growth will continue to be focused within Stratford and the Royal Docks: two of the most significant Opportunity Areas identified in the new London Plan.
- **The Olympic Legacy Opportunity Area (Stratford)** will continue to evolve, not least via the location of East Bank: London's new quarter for innovation, creativity, culture and learning at the Queen Elizabeth Olympic Park – bringing together Sadler's Wells, BBC Music and the V&A, as well as University College London and University of the Arts London College of Fashion. It is also designated as two of Newham's Digital Districts underway in collaboration with the GLA.
- Stratford is also part of the GLA's 'High Streets for All' programme, to support London's high street recovery, impacted by Covid-19. Through the programme, vacant buildings will be brought back into use by boosting community businesses and supporting employment on the high street.
- In the **Royal Docks Enterprise Zone and Beckton Riverside Opportunity Area**, capacity has been identified for over 30,000 homes and over 41,500 jobs – accounting for 6 percent of new homes and jobs across all of London's Opportunity Areas.
- Both opportunity areas are also the location of two of the GLA's Digital districts. We are working with the GLA to facilitate partnerships to deliver a pipeline of innovation in smart and digital infrastructure, which will provide benefit to the rest of London.
- For instance, the Royal Docks Enterprise Zone (the only one in London), which offers business incentives to draw investment and unlock growth in Newham's historic docks plans to embed the required digital infrastructure such as full fibre connectivity, mobile infrastructure and 'Smart City' innovations in the promotion of sustainable public realm.
- As part of our Newham Sparks and inclusive economy plans, we have designated the Royal Docks and Lower Lea valley areas as the location for a '**Data Corridor**' in London, to anchor the data economy in Newham and support the growth of the data and digital sectors, including space for data centres and emerging technologies. For instance, we are already working with the English Cities Fund to explore the potential to recycle energy from Data Storage centres to power homes with green energy.



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