

Oslo: State of the city

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Executive Summary

1.

This 4th edition of the international ‘outside in’ review of the State of Oslo highlights the many important steps the City-Region has taken forward in 2017. In particular the City-Region has:

 - Achieved impressive growth in its Innovation Eco-system which continues to mature.
 - Been awarded Europe’s Green Capital and continues to take the lead in terms of pioneering new solutions for sustainability, including its Car Free and Low Emissions initiatives.
 - Completed more of its landmark Cultural Projects that are establishing Oslo as a leading centre of culture in Northern Europe.
2.

Oslo is in a positive cycle. Its recent progress is the product of a successful phase of wider change and transformation. The city-region is emerging with an identity as a hub for innovation on the international stage, attracting more of the world’s attention and its talent. Its investment in urban restructuring, art and culture is changing the region’s profile and giving it more energy and edge. And the city-region is renewing its reputation as a metropolis at the forefront of the global agendas of the 21st century – peace, technology, climate change, inclusion and cohesion. Oslo’s new model is increasingly in demand, increasingly visible globally, and increasingly benefits from an integrated region that works together to add scale and capacity.
3.

Oslo is becoming more visible globally. Its progress is being reflected in more global measures of city and regional success. This report has reviewed more than 400 global benchmarks, rankings and comparative studies, which together shape a substantial dimension of the global conversation about cities, and in 2017 and so far in 2018 Oslo has featured in more global benchmarks than ever before. The city-region has made the grade in a number of exclusive rankings and surveys which indicate that among certain audiences it is reaching a new level of stature. International benchmarks show the city-region consolidating its position and gaining more recognition for the strengths that are well established and its emerging areas of advantage. The last 12 months have seen Oslo consolidate its performance within the longer growth cycle. The signs are that by global standards Oslo is becoming more business and entrepreneur friendly, and that demand to invest in the city-region remains high.
4.

Oslo has generated real momentum. The expansion of its innovation eco-system continues to be reflected in the benchmark studies. More firms, more incubators, larger VC deals, and rising employment in the ‘app’ economy all point to a region making a leap forward. Given its size, Oslo now is consistently one of the most innovation-intense city-regions in Europe. This is underpinned by exceptional and nimble talent. The pattern provides evidence of an ecosystem that is able to support an increasing number of growth-stage companies. The innovation momentum has registered in some global circles but communicating the current rate of change remains an important imperative moving forwards.
5.

Oslo is acquiring ‘soft power’ and influence. Oslo is making important steps to promote sustainability and this is gradually becoming more reflected in the global measures. The city-region’s sound sustainability practices, low pollution and bicycle adoption are all now recognised and are adding to Oslo’s brand and appeal. The data has still to ‘catch up’ with initiatives to reduce carbon emissions, and this will likely have an impact in the years to come.
6.

Oslo’s magnetism is growing. Improved attraction to talent is one important recent area of progress for Oslo. The region is registering on the global radar as an exciting place to move to and build a career and achieved 3rd place globally in one of the most influential benchmarks on this topic. The gap between the region’s international reputation as a place to live and a place to work is now closing. High costs remain one of the main remaining perception barriers.
7.

Oslo is now recognised as a cultural city. Oslo’s ongoing cycle of investment in cultural infrastructure has triggered further improvement in its reputation for leisure and lifestyle. The region is appearing in new benchmarks in this area for the first time and its music and theatres already stand out. This is the product of 10 years of investment and is having a big impact on citizen satisfaction, the standard of public space, and Oslo’s international destination reputation. It is also supporting Oslo’s transition into a knowledge and experience-rich economy.
8.

Oslo’s improving cultural performance is a key ingredient for the city-region to successfully accommodate the innovation and creative economy, while also communicating its core values in a time of rapid growth and change. More cultural investment will be needed to underpin its future narrative and identity, as well as shape the whole region’s spatial strategy, make specific locations succeed and drive the economic transition.
9.

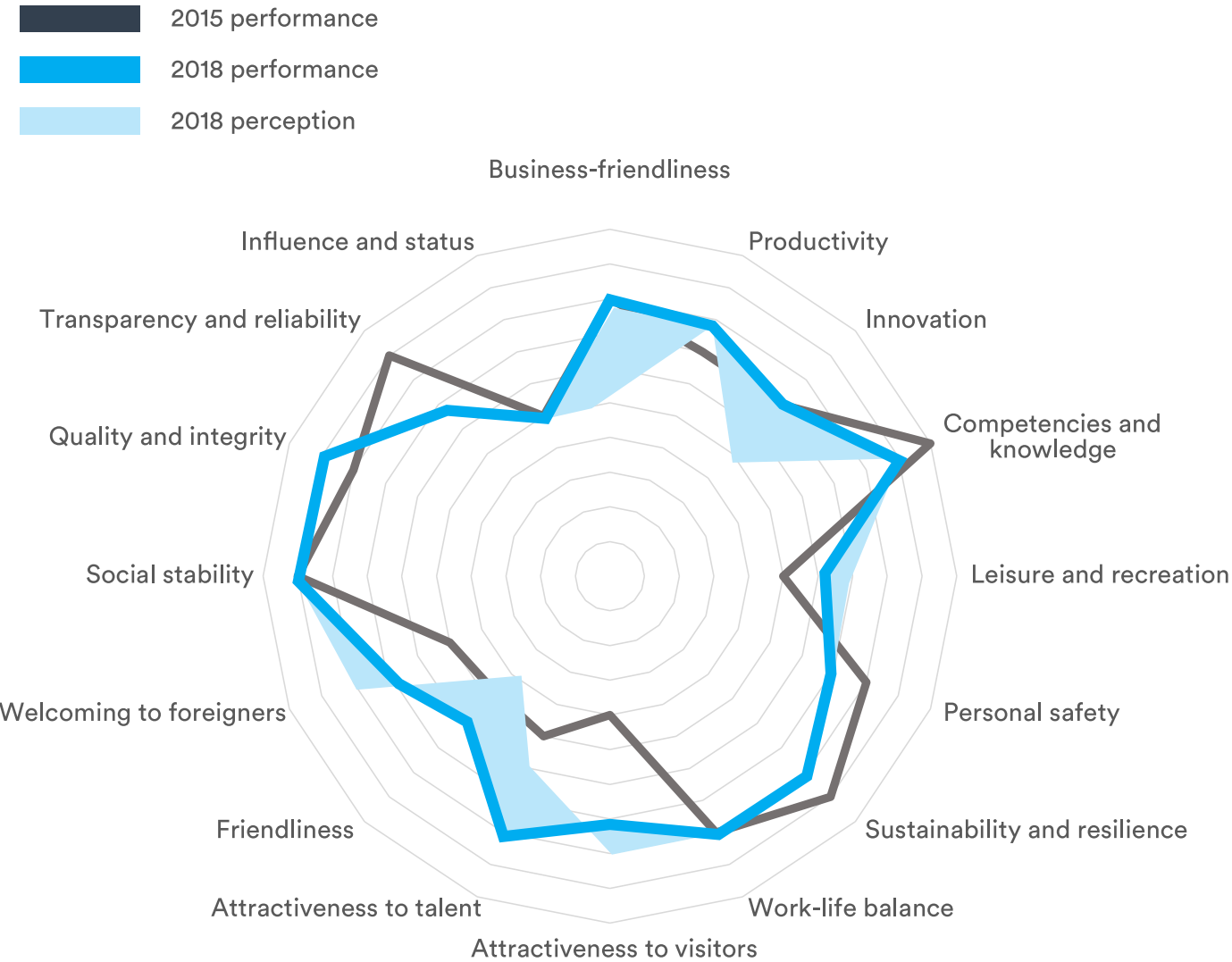
Oslo has a digital dividend. This is a time of rapid change for city benchmarks – big data and online tools make it easier to measure cities in more areas and canvas global opinion. So far Oslo appears to be winning from this trend. On the one hand new forms of data reveal the quality of Oslo’s public systems and sustainability policies, and the high rate of citizen participation. On the other hand, new sources of expert opinion confirm Oslo’s strong reputation among those who know it for smartness, technology, professional expat lifestyle, tolerance and even gastronomy. In global opinion surveys Oslo is now highly competitive in the Scandinavian context.
10.

The new generation of benchmarks focuses much more on personal factors such as happiness, stress and work-life balance, and on social factors such as gender and income equality. Oslo region generally tends to perform well in these new measures and this could be an emerging area of reputational strength in future.
11.

Success reveals challenges and new horizons. As Oslo reaches the full term of a strategic growth cycle, how it manages the consequences of success and the reputational costs that may come with them becomes even more important. Digital connectivity, congestion, affordability, and crime are all areas where recorded performance or perception currently disadvantage Oslo in some measures, and cloud the nature of its overall offer.
12.

Data is key to continued recognition. Among the more than 400 indexes produced globally, many of the indicators used are still blunt tools that do not always properly convey Oslo’s assets. Measures of crime, governance, tax and public services in particular are not fully fit for purpose and can mean that global audiences make incomplete assumptions. Making accessible as much up-to-date and relevant data on the Oslo ‘model’ (economic, social, cultural, infrastructural) as possible will help the region be more accurately evaluated and recognised in global benchmarks. Oslo’s leadership in responding to the UN Sustainability Goals may also include contributing actively to those organisations promoting an improved ‘science’ of cities. At the same time, Oslo should be at the forefront of the new generation of digital technologies to communicate the region’s special assets and values.

The Oslo performance spidergram in 2018





**Oslo's
journey**

The innovation economy and the rise of Oslo.

It is 5 years since Oslo decided to re-shape the city-region’s international identity, visibility, reputation and positioning and to frame the Oslo brand. In those 5 years Oslo has emerged as a new and distinctive player on the European and global stage. The Region has taken responsibility to bring into being an additional economic model for 21st century Norway, during a cycle of great change for both the country and the world. Oslo provides Norway with a metropolitan innovation economy that it needs to complement other national strengths.

Over the last five years, we have been tracking Oslo’s performance in the widest possible set of global benchmarks, rankings and comparative studies. The latest ‘outside in’ assessment, which draws on a database of more than 400 global benchmarks and 20,000 data points, forms Part 2 of this report. Taking a longer view, however, we can see that Oslo’s evolution in these global measures is the outcome of a whole cycle of important changes and initiatives coming to fruition in the city-region.



What is the innovation economy?

‘Innovation’ conveys the ways that workers, entrepreneurs, companies and industries embrace fresh knowledge, utilise new technologies, and promote change. In doing so innovation may foster new business processes and create new products, stimulating and/or serving demand in novel ways. Such developments can increase the overall performance of workers, firms, sectors, or whole economies, and in doing so they may make them more productive. This can increase demand, improve supply, and enhance trade. Even for an already successful city-region such as Oslo, innovation can create jobs, raise skills, increase rates of enterprise and investment, and improve business efficiency and competitiveness, boosting wages, profitability, and tax revenues.

Definitions of the Innovation Economy

“New ideas that turn into companies that change the world in ways large and small.”

Prof Enrico Moretti

“The period in the early 21st century marked by radical changes brought about by (1) globalized commerce, (2) democratized information, (3) exponential entrepreneurship growth, and (4) accelerated new knowledge creation.”

Nortech, USA

“The synergistic relationship between people, firms, and place that facilitates idea generation and advances commercialization.”

Bruce Katz and Julie Wagner, Brookings

“Innovation is more than a single ‘tech sector’ or ‘start-up scene’ – it’s a way of describing how whole portions of an economy embrace technologies and change.”

Prof Greg Clark and Dr Tim Moonen, The Business of Cities

“Many regions and workers still have untapped capacity to be part of the innovation economy... Innovation is the process of creating new things that people care about – business is the way we give it to them.”

Jonathan Aberman, University of Maryland’s Robert H. Smith School of Business

“In reality, our innovation economy is not a Roman aqueduct but a “muddy pond”. Rich but obscure. Innovation requires of all actors, corporate, academic, civic and political, the instinct of the hunter-gatherer, not the farmer; a longer and broader view of needs and opportunities”

Robert Madelin and David Ringrose, for European Commission

Although sometimes equated with a single sector or cluster of start ups, innovation refers to changes that can span multiple industries and many different kinds of company. The ‘Innovation Economy’ describes what happens when such changes emerge at large scale and come to dominate or disrupt pre-existing sectors, and commerce or trade, to foster advanced and high-growth industries. This process is unfolding very rapidly in Oslo, and is driving wider changes in the development and perception of the Region.

Source: Professor Greg Clark, Dr Tim Moonen, Jake Nunley (2018), The Innovation Economy: Implications and Imperatives for States and Regions, New South Wales Innovation and Productivity Council, Sydney, Australia.

A new economy and a new Oslo

In this cycle the changed commodities outlook and an aging population means that Norway has to shift decisively from an oil/gas and corporate economy towards a more diversified set of sectors powered by knowledge systems, small and medium sized companies, and a new generation of exponential technologies that will create the next generation of jobs. This means a new talent system and a city life style that supports it.

The winds of change are global in scale. Urbanisation, globalisation, digitisation and cross-border capital flows are all tending to concentrate opportunities in the most competitive, innovative and adaptive city regions. The global contests between cities and regions are shifting away from attracting banks and corporate HQs to a focus on science, technology, entrepreneurship, talent, lifestyle, institutions and soft power.

As a proud and optimistic capital city region of a young nation, and realising that its special assets were hardly known by the rest of the world, Oslo has been pivoting confidently to these new megatrends, and telling the world a new story. While the city itself benefits from more appetite and demand from investors, entrepreneurs, students and talent, the assets and amenities of the whole region provide the scale and the choice to underpin Oslo's growth.

In our work around the world we observe that the cities that align the way their region develops with what mobile activity needs, while also actively managing the side effects of growth to maintain and improve quality of life, increasingly are the ones that perform well in the world's indexes and benchmarks. The changes underway in Oslo reflect this commitment to 'good growth', and they explain why Oslo is making important gains in many of the measures that really matter, as the benchmarking later in this report shows.



The 5 key features of Oslo's cycle of transformation



2.1 Rapid population growth

Oslo region has been the **fastest growing capital city in Europe**. Since 2000, the Region's population has grown by more than 25%, and many of the key dynamics are in place for growth to continue up to 2050. Oslo's high standard of living, buoyant labour market and increased recognition of the region's standard of public services has seen it become more attractive to young people within Europe and also beyond. In 2018, for the first time, 25% of the Oslo population is born overseas.

High levels of in-migration of young people have transformed the demographic profile of Oslo and created the conditions to expand the city's innovation and cultural scene. As demand has grown in Oslo, more new arrivals are settling outside in the wider Region (e.g. Ullensaker, Nannestad and Sorum). Oslo has therefore evolved from a domestically oriented city into an internationally ambitious Region.

2.2 Successful waterfront redevelopment and urban restructuring

Oslo's rapid regional growth has seen local governments and national government recognise that to accommodate this growth the capital has to develop a regional approach that involves intelligent use of regional infrastructure and assets, and large scale urban restructuring. This has not only seen Oslo grow its successful new airport into an internationally connected hub. It has also involved a process of urban densification and redevelopment to connect its harbour to the city centre.

The revival and regeneration of Oslo's waterfront is creating many lasting effects for the region. Not only has it provided a high quality and attractive set of new spaces for businesses, offices, art centres, museums and public parks. It has reconnected the city to the water, successfully preserving heritage and re-affirming the city's shared identity in a time of change. It has promoted innovation in the

way Oslo treats its public spaces, cultural assets and land

management. And it has re-established Oslo at the cutting edge of urban design excellence.

To make all this possible, Oslo has developed a more coordinated regional approach to land use and transport planning, and a clearer shared approach to creating a polycentric region that benefits everyone.

2.3 Economic Diversification and the rise of innovation eco-system

Oslo's economy has been undergoing a radical shift in the last decade. Oslo is not only a city of finance and business serving its national commodities and maritime economy – it is a diversified city of knowledge, culture, medicine and advanced technology. Since 2010, many of its emerging sectors have grown rapidly, including telecoms and IT (4% jobs growth per year), technical advisory (4%), and arts, culture and entertainment (3%).¹ Oslo region has been accounting for nearly 9 out of 10 additional private sector jobs throughout Eastern Norway.

Oslo now can boast many new **competitive sector advantages in the global marketplace**. These are typically in high-expertise and high-technology fields with a strong knowledge quotient. These include IT, software, biotech, life sciences, energy technology, maritime, culture, creative industries and specialised components.

Solar energy, educational technology, fashion and smart urban technology are all strongly emerging clusters in Oslo that benefit from national funding and effective local capacity building. The renewable energy and circular economy community has also become much larger and more dynamic in the last 5 years. The Ocean Industry Forum is helping to build the Oslo region's status and reputation for maritime and offshore activities. And the future food network is bringing together the leading players in food, nutrition and health and fostering new innovative products.

Oslo's growth in medicine and renewables really stands out. Several clusters have expanded dramatically with the leadership of key knowledge institutions, which are fostering technology transfer and knowledge exchange across the region. Three of the major clusters are:

- **The Oslo Cancer Cluster** which is establishing the region's reputation as a world class location for oncology research and industry innovation. The Cluster is an example of leadership from the University of Oslo and the Radium Hospital Research Foundation and is now a recognised centre of excellence attracting international talent and investment.
- **The Life Sciences Cluster** has boosted the interaction between universities, businesses and other organisations, and is producing more interdisciplinary collaboration. Supported by the University of Oslo, Inven2 and Oslo Tech, it benefits from large scale strategic initiatives such as UiO Life sciences to connect and house the different actors in the sector.
- **The Oslo Renewable Energy and Environment Cluster (OREEC)**, based principally in Lillestrom, has improved the interaction between businesses, research, education and public bodies to grow Oslo's competitiveness in renewables.

The improved organisation of these growth industries has been an important part of Oslo's story in this recent cycle.

This process of diversification is happening at a time when more people than ever are working in small nimble businesses than in large traditional companies. Oslo has seen

numerous entrepreneur-accelerator programmes appear, along with dozens of co-working areas, maker spaces and other hubs that allow small innovative firms to thrive.

Civic institutions have been stepping up their leadership to promote Oslo's transition to the new economy. These include the University of Oslo, Norwegian Business School, Norwegian University of Life Sciences and Oslo Metropolitan University. Leading cultural institutions have also actively fostered the development of art, design, architecture, fashion, literature and music in Oslo, such that Oslo now accounts for about 60% of cultural industries' total value creation in Norway.

Innovation needs somewhere to live. The diversification of Oslo's economy is being accommodated by multiple new 'hub' locations across the region. These include:

- **The large startup networking hubs in the city centre, including Mesh and OHIO.**
- **The UiO research park in Blindern, which houses Inven2, Oslo Tech, Startuplab and Norway**

Health Tech, and is a major cluster for innovation, anchored by the University's core research excellence.

- **The maritime and technology hub in Kongsberg.**
- **Oslo Cancer Innovation Park in Ullern.**
- **The creative industries cluster growing in Nydalen.**

Oslo's economy is full of optimistic new players, fuelled by a movement of makers and innovators, and benefits from numerous public efforts to build fresh confidence and capacity in the future.

2.4 Major investment in cultural fabric

For the new wave of fast-growing and rapidly globalising city regions, culture is an essential ingredient if the region is to successfully accommodate the innovation and creative economy. This is very true in Oslo. As the region competes at the global cutting edge, cultural investment is helping to cement Oslo's reputation for quality of life, boost its destination appeal, meet the preferences of the innovation economy, and communicate its core values in a time of change.

In the current period Oslo's cultural development has become much more competitive and is helping the region hit many of its other targets (see Benchmarking).

Oslo's growing cultural reputation is the product of a 10 year cycle of investment which began with the Opera House.² The largest cultural building constructed in Oslo's modern history, the Opera House has sparked multiple cultural investments and initiatives. The current cycle has successfully combined flagship infrastructure with large-scale urban renewal. The National Museum³, the Astrup Fearnley Museum of Modern Art, the new Public Library and the Munch Museum, provide a major boost to the competitiveness of Oslo's cultural amenities while also improving public services, public space and public access.⁴

Cultural development is also happening throughout the region, such as the new Kongsberg Knowledge and Cultural Square, which is an example of the successful repurposing of buildings into new cultural hubs.

The implications of this recent cycle of cultural investment, both for how Oslo's cultural scene is perceived internationally and how its visitor economy performs, are already very positive:

- **Consistently high citizen satisfaction with cultural facilities.** One international survey identifies 92% of Oslo residents are quite or very satisfied with cultural facilities in the city, such as concert halls, theatres, museums and libraries.⁵

- **Stronger destination reputation for Oslo.** Both the New York Times and Lonely Planet have recently listed Oslo as one of the top places to visit worldwide, in recognition of the city's ever-improving offering of exciting architecture, cultural and art experiences.⁶ Oslo is becoming more visible as a cultural destination in international media:

«It took a long time for Oslo to develop the must-visit reputation its Scandinavian sisters Stockholm and Copenhagen have been enjoying for years. But cutting-edge architecture, art, and restaurants have finally put the city in the spotlight».⁷

Malay Mail Online, Malaysia, 2018

- **Increases in tourist arrivals and in the number of tourists visiting Oslo for culture.** Over the last 5 years the number of guest bed-nights in Oslo has increased by 35%, much of it due to improved cultural offer. National surveys show that more international tourists enjoy and experience interesting culture, history and city life on holiday in Norway compared to just a few years ago.⁸

- **A growing reputation for innovative and inclusive cultural projects.** Oslo's recent cultural investment is revealing to the world the city's ability to transform relationships between citizens and culture. The use of culture to reconfigure public spaces, and activate temporary exhibitions and workshops for a wide range of people, is more and more visible and exciting. Recent cultural projects that focus on creating a vibrant social atmosphere have attracted talent and are helping to build the appeal and status of locations across the Region.⁹

2.5 Soft Power through global leadership for sustainability

Oslo has always been something of a pioneer in adopting green and sustainable models, but this has really accelerated in the last 5 years.

Oslo has become renowned globally for implementing **some of the most ambitious greenhouse gas reduction targets anywhere in the world.** The City plans on reducing greenhouse gas emissions by 50% compared to 1990 levels by 2020, and by 95% by 2030. If successful, this will make Oslo faster at reducing emissions than any other city or country. In global eyes, this confirms the

city's pioneering role in addressing one of the biggest challenges of the 21st century.

Oslo is adopting innovative approaches to reduce its emissions, such as the **Climate Budget**, introduced in 2017. This puts climate goals at the centre of financial budgeting and allocation process for the city, and makes Oslo's achievements of its ambitious goals even more realistic. The world is becoming inspired by the programmes Oslo is financing, including to deliver a zero-emission public transport fleet by 2020, phase out oil-fired heating systems, and making public transport cost-competitive with car travel.

A number of initiatives stand out and are paving the way for others around the world to follow in Oslo's footsteps:

- **Eliminating private cars from the city centre.** Oslo's efforts to prevent people from driving into the city centre are capturing the global imagination. They include implementing a no-car zone within the city's central ring road, removing all on-street parking, closing several streets to private traffic, and introducing rush hour charges in a certain zone on top of existing congestion fees. This is happening alongside improvements to the pedestrian and bicycle network, as well as new and innovative solutions to goods transport and delivery (e.g. Aker Brygge). Oslo's **incentive program** to purchase electric bicycles is introducing a new demographic to urban cycling. This comprehensive approach sets a global standard and re-positions Oslo at the forefront of trendsetting cities.
- **Ultra-efficient district heating** – the world's largest heat pump provides 13MW of electricity for Drammen- Oslo and is showing how to raise the temperature of water circulating in the city's heat network.
- The first capital city in the world to join the **fossil fuel divestment movement**. The move means that \$7 million of coal investments in Oslo council's pension fund will be moved out of the sector.
- The **"Business for Climate Network"** is fostering cooperation between the business community, citizens and NGOs in addressing the impact business operations have on climate.

Oslo's award as the **European Green Capital Award for 2019**, beating 13 other cities to the title, reflects international recognition for its pioneering efforts and dedicated commitment of actors in government, business

and civil society. Oslo is not just leading in one area of sustainability – it is showing the world how to deliver a holistic approach that spans biodiversity, public transport, social integration and public health.

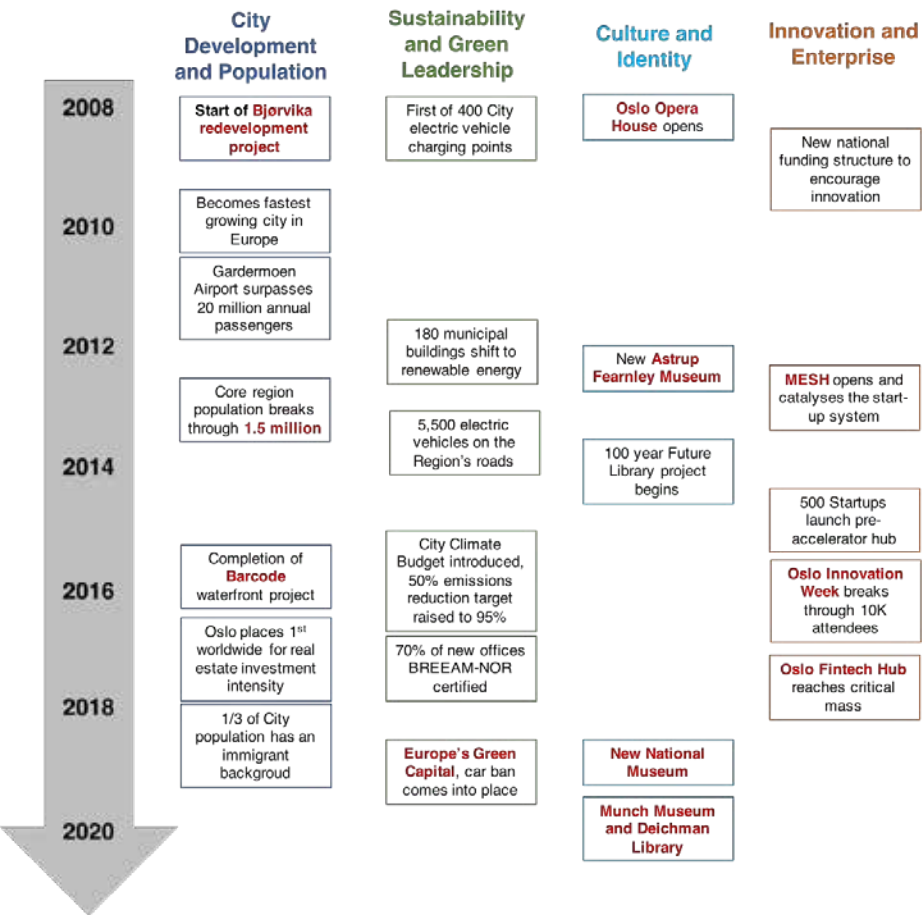
What does this all mean for Oslo?

Observing Oslo from the ‘outside-in’, it appears that there are three core dimensions to the way the region has evolved in this latest cycle. Oslo has:

Emerged as an innovation region on the international stage. Relative to other small regions around the world, Oslo region continues to grow more firms, create more co-working spaces, incubators, accelerators and start-ups. Oslo’s start-up scene has become more visible at international events and gatherings, and more of the world comes to Oslo to sample its innovation culture.

Shown the world its credentials as a region of culture, energy and edge. Until recently Oslo was not widely perceived internationally as a region whose cultural offer was a motive to visit, study or relocate. A cycle of investment in cultural infrastructure and neighbourhood redevelopment is capturing the imagination of prospective talent.

Taken a lead to respond to the important global agendas of our time. Oslo is not only a leader in terms of sustainability and technology adoption, with ambitious climate policies, proactive and openness to innovative planning and technology solutions. It is also a region promoting new approaches to social cohesion and inclusion, family-friendly urban living, and healthy lifestyle at all stages of life.



As a result, it is fair to say that Oslo’s new business model (innovation, science, culture) is increasingly in demand. It also increasingly benefits from an integrated region that adds scale and capacity to help Oslo absorb demand in a well-managed way.

The result is that the world is gradually catching up with what Oslo really is and what the city really stands for. The ‘wordclouds’ below capture the adjectives used by international media and commentators to describe Oslo in 2011 vs 2017/18. In 2011, Oslo was known for being a small, pleasant, safe, domestically oriented city that was on the cusp of change. Today, more of Oslo’s edges

are known by the world: its urban quality and vibrancy is being recognised, its work-life balance is feted, and its diversity, innovation and ambition is widely perceived by external observers. Oslo is becoming a leader.



Source: Google. Based on English-language adjectives used to describe Oslo in the phrase “Oslo is a [*] city”, in non-Norwegian sources.

2

The Benchmark Report

The Benchmark Report

Overview and methology.

This next section of this ‘outside-in’ review of the State of Oslo once again evaluates Oslo’s performance across the ever-expanding universe of international indexes, benchmarks, rankings and comparative measures, among which Oslo appears more and more often.

From a database of more than 400 indexes and 20,000 data points, the report assesses Oslo’s current performance and international reputation in 16 thematic areas within four over-arching themes: Business, Liveability, Hospitality, and Governance. This year we also include a deep dive into Oslo’s innovation system, its vibrant cultural scene, and the emerging opportunities of tech to shape city perception.

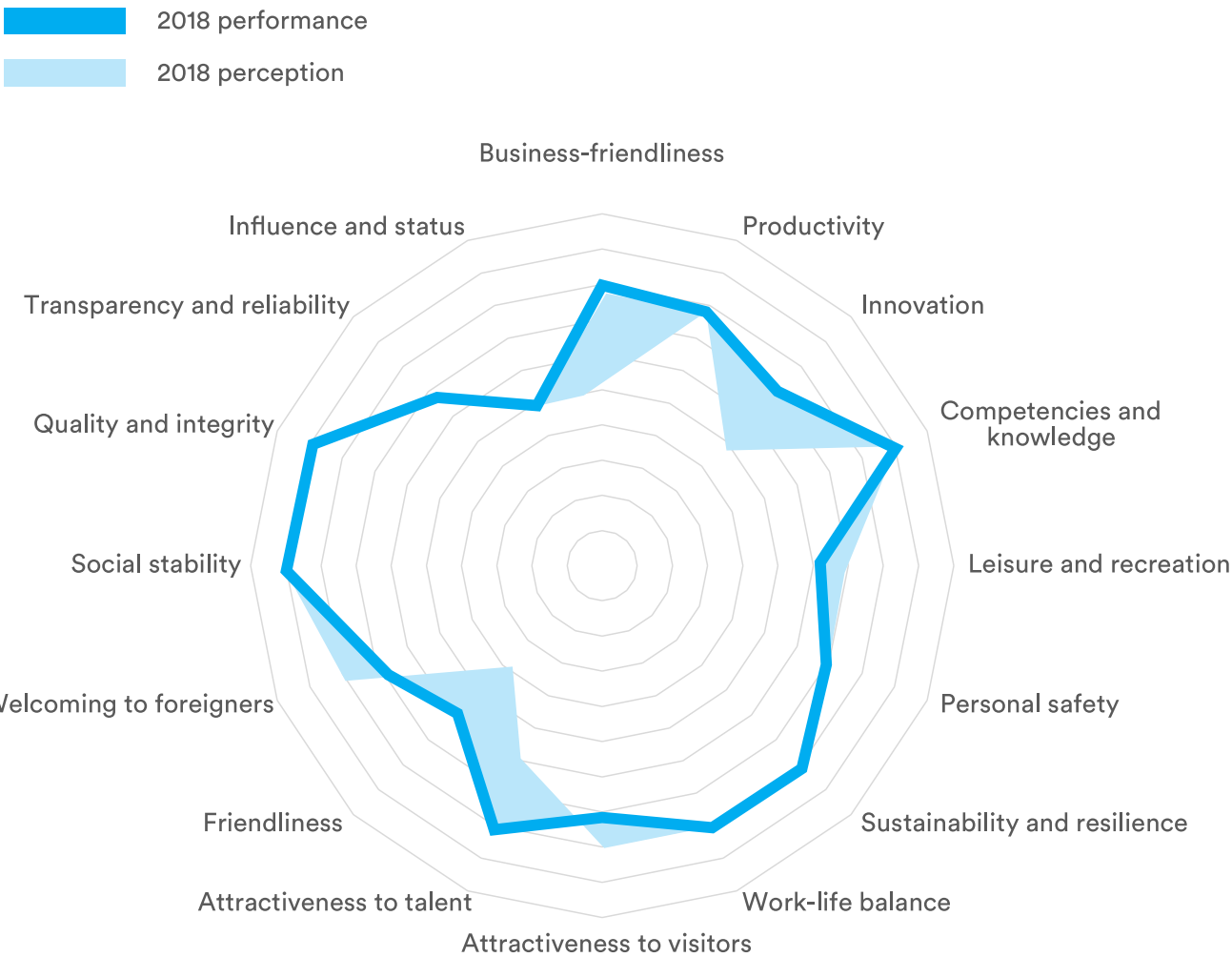
The 3rd ‘outside-in’ review, published in 2017, identified that:

- Oslo appeal to mobile capital in real estate, infrastructure and innovation, and its improved business eco-system, meant it had become included in more rankings that track these trends. For a city of is size Oslo had started to achieve more recognition, despite very intense competition, although more had to be done to communicate the innovation story.
- Oslo had started to perform more strongly in indexes that reflect perceptions of urban lifestyle, aesthetics, ‘cool’ and the natural environment. The Region’s social and environmental resilience also witnessed an uptick in recognition.
- The risks to Oslo came in the form of higher congestion, unaffordability, and the limited visibility of the city’s improved hospitality and openness. These highlight the importance of patiently targeting key audiences, revealing Oslo’s new edges, and strengthening its identity as a city of peace, reconciliation, tolerance and fairness.

This report

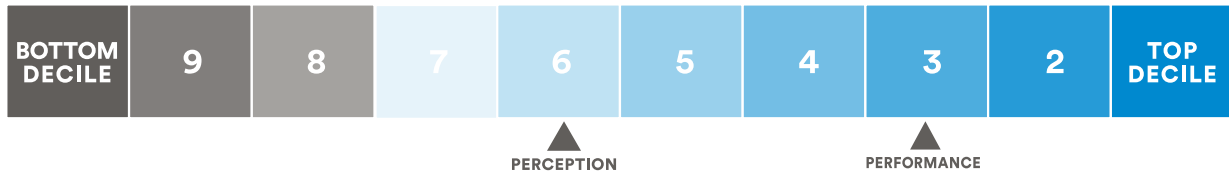
- Conducts a full review and update to Oslo’s index performance since the end of 2016.
 - Assesses whether Oslo’s international projection and outreach in benchmarks is improving, declining or stable.
- Develops an Oslo region Performance Spidergram, and highlights where international Perception diverges from this.
 - Provides a headline analysis of Oslo’s evolving position in the indexes, broken down into the key areas of interest.

Spidergram of Oslo’s 2017-2018 performance and perception



Explaining the 10-point scale

In the following sections, we detail Oslo’s position across these 16 indicators, along a 10-point scale. Where there are sufficient indicators in both the performance and perception categories, Oslo’s position will be shown twice to reflect how performance and perception compare. The scale is indicated by the horizontal colour scheme. This is explained in more detail in the method note appendix.



1

Benchmarking Oslo against peer cities

Benchmarking Oslo against peer cities

This assessment continues to benchmark Oslo among a peer group of 50 medium-sized, upper income, high quality cities with a global orientation, and with at least one visible specialisation.

By measures of size, GDP per capita, sector composition and internationalisation, 12 of the 49 peer cities strongly correspond to Oslo's assets across multiple dimensions (see left column).

A second group of 22 cities has similar qualities to Oslo but are somewhat larger in terms of population and market size. A third group of 15 cities resembles Oslo in terms of metropolitan size but lacks the breadth and depth of assets and advantages that Oslo possesses.

Strongly comparable in many areas	Comparable global assets or strategy, but different size and scale	Comparable size and wealth, fewer similar assets or strategic imperatives
Austin	Abu Dhabi	Adelaide
Basel	Barcelona	Bristol
Brisbane	Berlin	Cleveland
Calgary	Boston	Eindhoven
Dublin	Copenhagen	Gothenburg
Glasgow	Detroit	Las Vegas
Helsinki	Frankfurt	Lyon
Ottawa	Hamburg	Manchester
Perth	Kuwait City	Marseille
Portland	Melbourne	Minneapolis
Vancouver	Montreal	New Orleans
Zurich	Munich	Orlando
	Rome	Prague
	San Diego	Raleigh
	San Francisco	San Jose
	Seattle	
	Stockholm	
	Stuttgart	
	Sydney	
	Tel Aviv	
	Vienna	
	Warsaw	

Out of these 50 cities, Oslo is 14th highest in terms of its average position across all benchmarks since December 2016. Its average rank of 31st (among all cities in the world) puts the city nearly among the top 10% globally out of more

than 250 cities – this reflects the growing sample size in city indexes and rising competition between cities. Berlin is the highest ranked peer city with an average rank of 21st. Looking globally, Oslo's average position across benchmarks is

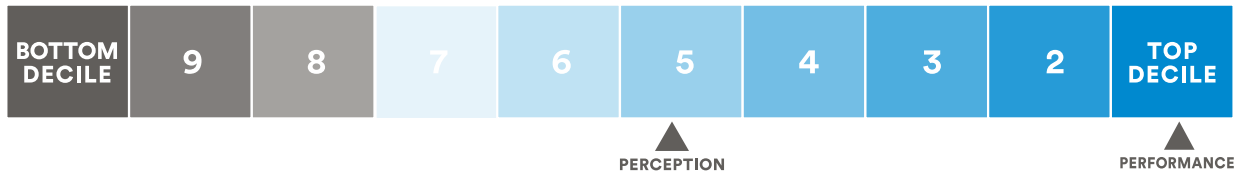
broadly comparable to much bigger cities such as Melbourne and Los Angeles, as well as high profile smaller cities such as Dubai. Oslo continues to record a strong position in international benchmarks despite increasing competition.



2

Business Climate

2.1 Business friendliness



Business costs remain relatively high in Oslo. But the national measures show that the overall tax rate on profits has improved, and high levels of IT use and a mature and sophisticated set of clusters mean that Oslo is becoming more attractive than many of its high-income peers to capture business and entrepreneurship opportunities linked to the current cycle of digital transformation.¹⁵

The 2017 review found that:

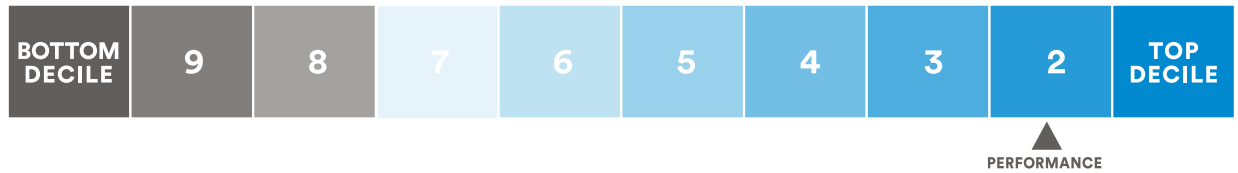
Oslo’s business friendliness performance had improved due to economic diversification and fast population growth.

The city had solidified its position as one of the most investable medium-sized cities worldwide due to strong demand and consistently high market transparency. Its reputation among financial professionals also improved. Business costs remained high.

Since 2017:

- There are continued signs that Oslo is becoming more business and entrepreneur friendly. A major established benchmark, IESE Cities in Motion, sees Oslo re-enter the global top 15% for entrepreneurial dynamism and ease of starting a business, climbing 8 places to 20th out of 181 cities worldwide.^{<?>}
- The city’s growth fundamentals remain highly attractive to business. La Salle’s most recent European index of business growth potential saw Oslo climb two places since 2016, overtaking Madrid and Stuttgart.^{<?>} Oslo is now 4th out of 23 peers for this measure. Strong fundamentals are underpinned by a very robust macroeconomic environment, for which Norway now ranks 1st out of 137 economies globally.^{<?>}
- Appeal to invest in Oslo’s businesses remains high – the city ranks 3rd in fDi’s European Regions of the Future in its size bracket, up from 4th in 2016.^{<?>} But the current cycle of growth means real estate has become more expensive and the market is more saturated. This, together with Oslo’s relatively small CBD in comparison to other global leaders, has slightly quelled the city’s appeal to some investors. In the most recent trend survey of European Real Estate, Oslo ranks 16th out of 31, and 11th out of 16 peers.^{<?>} This is one reason why overall commercial attraction, as ranked by JLL, is now 76th out of 300+ cities, down from 70th in 2015.
- Oslo’s reputation among financial services decision-makers has slipped as the city has become more economically diversified. In the most recent Global Financial Centres Index, Oslo slipped two places compared to in 2017 and is the only one of the top 15 Western European financial centres to lose position.^{<?>} Stockholm and Copenhagen climbed by seven and nine places respectively, and both overtook Oslo.

2.2 Productivity and Efficiency



The 2017 review found that:

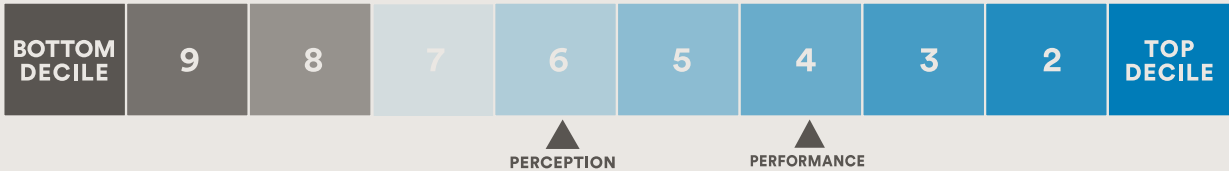
Oslo’s infrastructure and technology assets continue to rate as world class, and the city is one of the only of its kind to have made progress on both the technology and infrastructure pillars of productivity.

Oslo continues to boast one of the lowest unemployment rates of its European peers – a sign of the continuing strength of its economy even in the face of increasing global competition.

Since 2017:

- Productivity performance has remained high. In an authoritative review of the 300 largest metropolitan economies in the world, Oslo ranks 23rd for GDP per capita, and 8th among its 50 global peers.¹⁰
- Unemployment remains low. At a regional scale, Oslo has the 8th lowest unemployment rate among 20 of its European peers.¹¹ This, combined with Oslo’s large pools of productive talent, makes the city highly economically competitive. In a recent global study of economic competitiveness, Oslo’s productive base was one reason it ranked 26th out of 200 for its longer-run economic sustainability (10th among peers).
- Internet penetration and usage remain extremely high. At a regional scale, Oslo ranks joint 2nd among 12 of its European peers for the percentage of households with broadband access (behind only Helsinki and Eindhoven), and 1st for the percentage of people regularly using the internet (99%).¹²
- It has become apparent that Oslo’s transition to a high-tech economy may require ongoing improvements to the city’s digital connectivity. In one well-established global benchmark, Oslo slipped 35 places globally, from 37th to 72nd, for the quality of its broadband and technology platform.¹³ Meanwhile, in the EasyPark Smart Cities Index, Oslo’s internet speed is ranked 75th/100 cities globally (26th among 30 peers).¹⁴
- Congestion remains an important competitive concern for Oslo. TomTom’s Traffic Index ranks Oslo as the 109th most congested city globally, 25th among its 39 peers.¹⁵

2.3 Extended Feature – Oslo’s Innovation Momentum



Even in the last 12 months, the global race for innovation has heated up. City and national policy-makers around the world are recognising that innovation is what will provide a very sizeable chunk of future well paid jobs, and that innovation creates positive multiplier effects for the rest of their economy and society. Innovation has the added advantage of helping to re-use and restructure land uses and the built environment, improve productivity, and create future tax revenues that fund wider city development. Oslo was one of the early movers in the current cycle, but others are trying to catch up and the outlook is very dynamic.

The 2017 review found that:

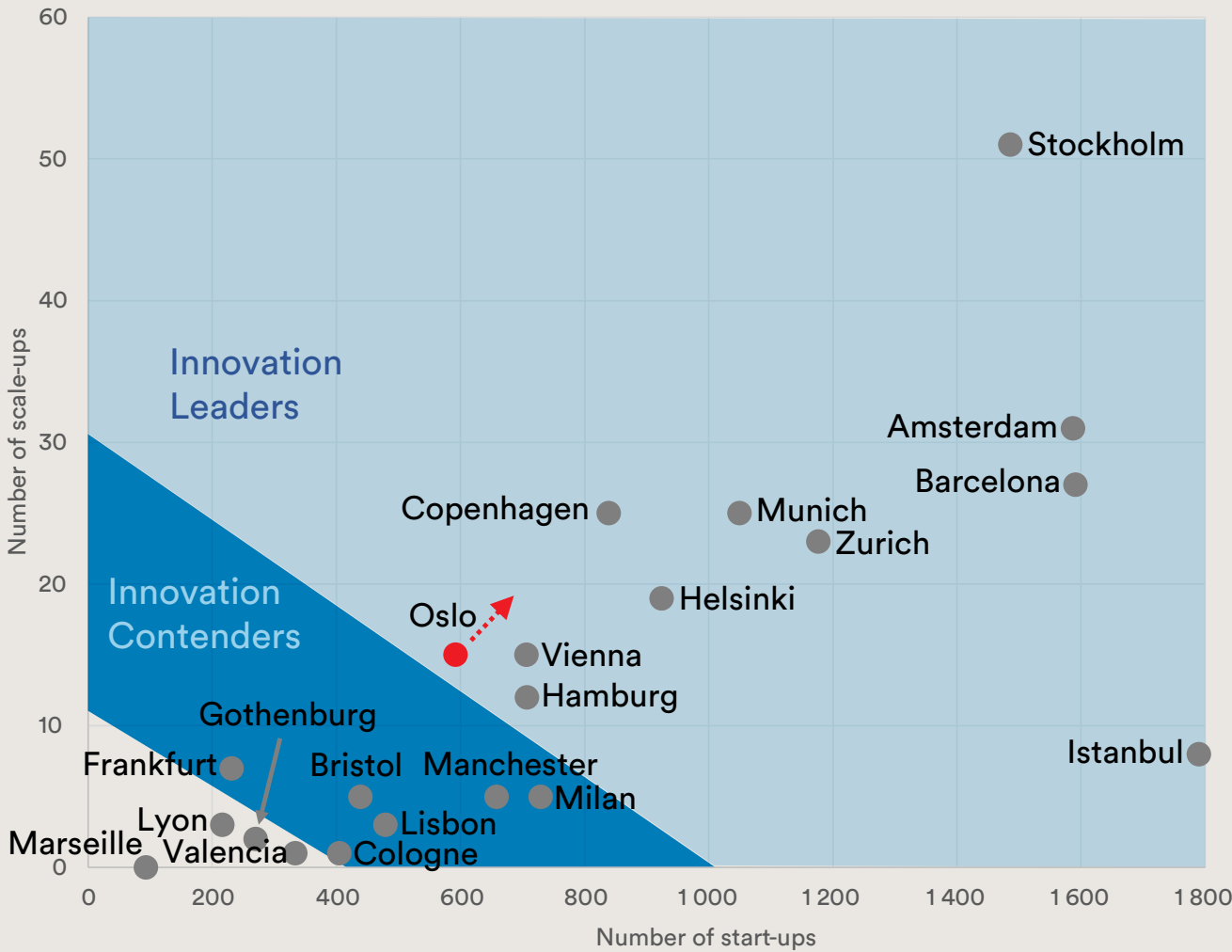
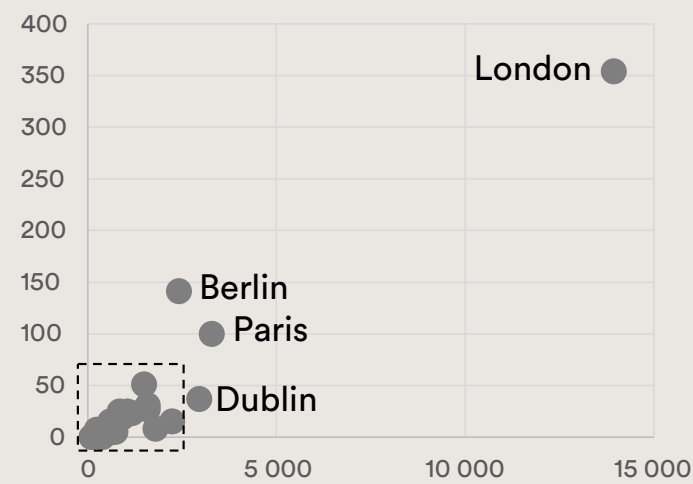
Oslo is gaining recognition as an internationally significant innovation location, due primarily to its high digital technology adoption rates, a growing culture of entrepreneurship, ease of doing business, and healthy work-life balance.

Strong growth in Oslo’s innovative firm activity and venture capital investment meant the Region was at the head of chasing pack of competitive European Regions. The ecosystem was perceived to have strengths in banking/fintech, med-tech, design and creative industries, and has a reputation for smart systems and open data.

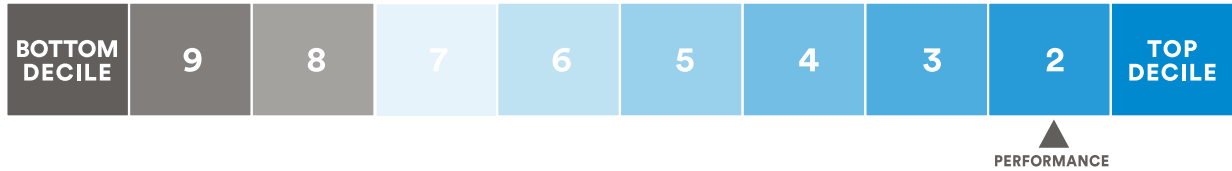
Since 2017:

Oslo’s innovative firm activity continues to grow rapidly. The city registered a 17% growth in the number of innovative technology firms between March 2017 and February 2018, well ahead of leading European innovators such as Dublin (11%), Amsterdam (8%), and Barcelona (4%). Oslo’s number of registered firms puts it clear of other medium-sized European cities such as Prague, Rotterdam and Gothenburg. Meanwhile, the number of top 10,000 innovative firms has increased by 25%, to 15. This represents a higher growth rate than in other more established innovation ecosystems such as Dublin (16%) and Amsterdam (11%).¹⁶

No. of innovative tech firms and number of Top 10,000 global scale-ups, March 2018



2.4 Competencies & Knowledge



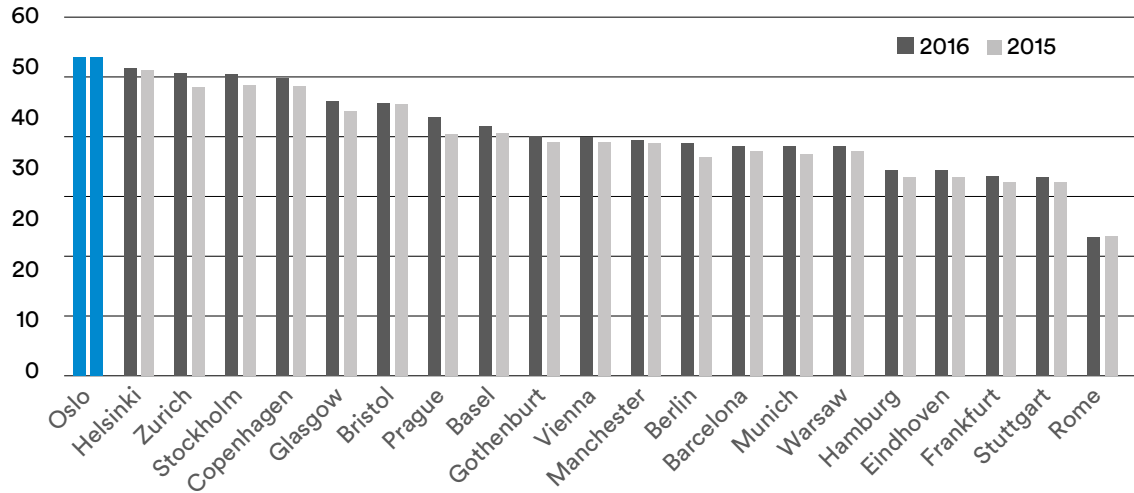
The 2017 review found that:

Oslo continues to excel for its share of university-educated residents and young people neither in employment nor in education and training. Oslo's position in some human capital measures declined, due to weightings that favour the number of international workers and students and a shift towards measuring absolute rather than per capita figures.

Since 2017:

- Oslo continues to excel globally for its extremely high levels of educational attainment. The Region still has by far the highest proportion of over 25s with a university degree among 21 of its European peers.¹⁷ This puts Oslo ahead of almost any other global region for this measure and is a huge competitive advantage moving forward.

Tertiary education attainment among 25-64-year olds in NUTS2 regions.



- Oslo continues to boast by far the lowest percentage of young people neither in employment nor in education and training among 19 of its European peers (3.5%).¹⁸ Only Eindhoven comes close, at 4.2%. This reflects both the capability of talent and the strong relationships with business and education providers.

- The relatively small number of top-ranked universities and the small number of total students at these institutions compared to some other regions, are a disadvantage to Oslo's scores. In the EasyPark Smart Cities Index, Oslo only ranks 66th/100 for education (28th among 30 peers) for these reasons.¹⁹

- Overall, however, recognition is beginning to catch up with reality. Oslo records big jump in education and human capital performance in the IESE Cities in Motion index, climbing an exceptional 90 places for its human capital, from 110th globally in 2016 to 20th in 2017.²⁰



3

Quality of life

3.1 Leisure and Recreation

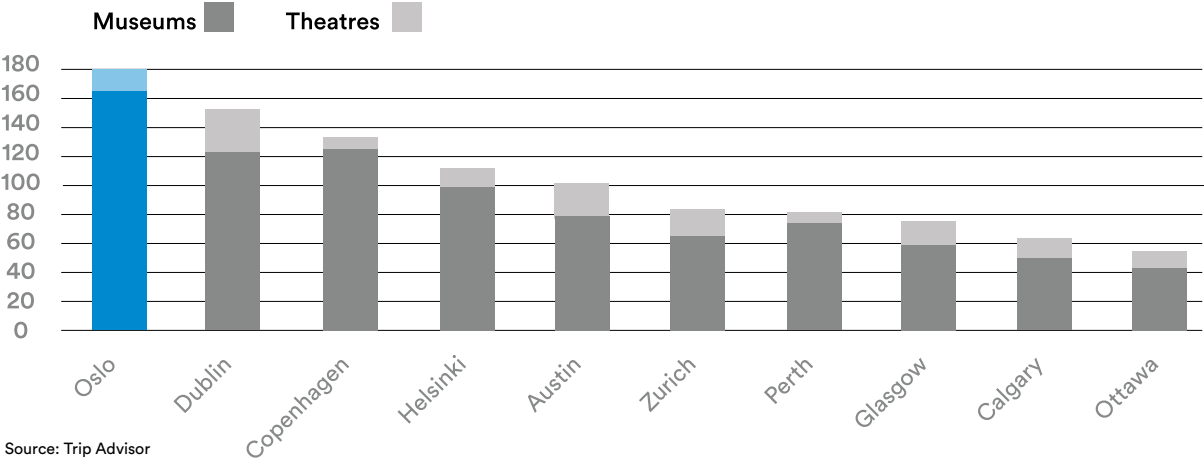


The 2017 review found that: Oslo is increasingly recognised for its urban lifestyle and amenity. This is linked to the ongoing physical transformation of areas such as the waterfront into vibrant mixed-use areas, and an improved reputation for public space, proximity to nature, and diverse architecture.

Since 2017:

- Oslo's ongoing cycle of investment in cultural infrastructure such as museums, galleries and other facilities has triggered further improvement in its reputation for leisure and recreation. The city appeared for the first time in a globally influential survey of the top 25 cities globally (coming in at 25th) for quality of life, partly in recognition of this improvement.
- By some measures, in 2018 the Oslo region has more high-end cultural facilities than any of its most directly comparable mid-sized city regions globally, including Dublin, Copenhagen and Zurich. Oslo emerges as particularly competitive for the range of its museums but also has a competitive range of other cultural amenities.

Number of cultural facilities in Oslo and nine mid-sized global peers.

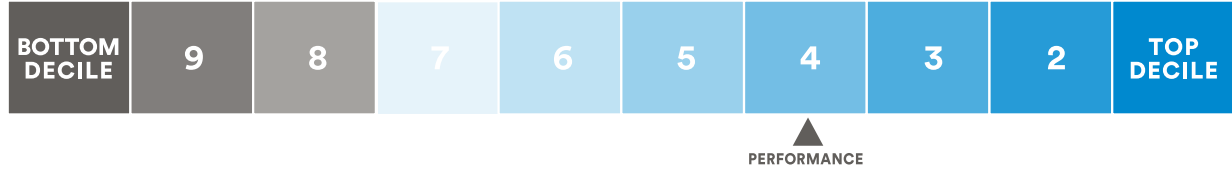


Source: Trip Advisor

- Oslo is now increasingly appearing in benchmarks of leisure and recreation. Within these new studies, Oslo emerges as a city renowned for its music festival scene. In a new globally influential study measuring the best cities for millennials, the city ranks 19th out of 110 cities globally for the number of annual music festivals – 10th among 36 peers.²¹ There is, however, room for improvement in terms of Oslo's child-friendly leisure and recreation offer (e.g. adventure parks, child-friendly museums). In a recent global review of the best cities for families, Oslo ranks 42nd out of 100 cities globally for this measure, or 23rd among 31 peers.²²

- Oslo's nightlife has emerged as a key area for improved recognition. The Nestpick Millennial Cities Ranking positions Oslo as 105th out of 110 cities globally for this measure, or 35th among 36 peers.²³ This is primarily due to the short opening times and restrictive laws governing the city's night-time establishments.

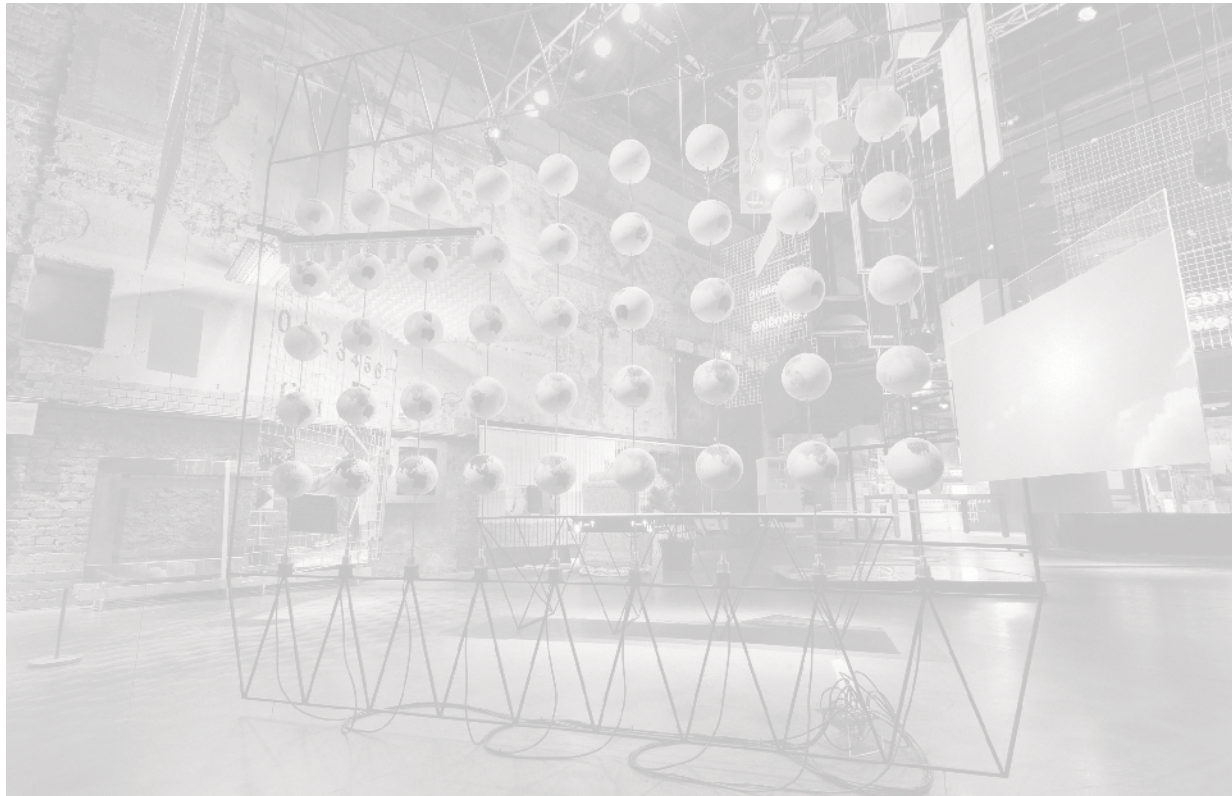
3.2 Personal Safety



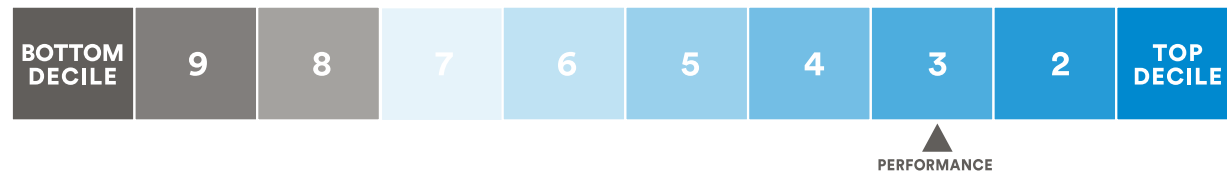
The 2017 review found that: Oslo's crime rate remained low by global standards but was not quite outstanding compared to some other central European and Canadian cities.

Since 2017:

- Oslo has slipped in terms of the perceived level of crime. In an important crime index measuring perceptions of crime, Oslo ranked as the 163rd safest city of 327 globally, down from 124th in 2017. The Region's position also slipped relative to its peers, from 17th among 43 peers in 2017 to 27th in 2018.²⁴ This is one of the key reasons why Oslo's quality of life is not always measured as outstanding in the most high profile rankings: in another global review of quality of life, which weights crime and affordability highly, Oslo recently ranked 73rd out of 184 cities, or 33 among 41 peers.²⁵
- Local perceptions of Oslo as a low stress high safety city are beginning to impact on global rankings. In a study measuring 150 of the world's largest cities by how stressful it is to live there, Oslo ranks the 25th least stressful, or 8th among 32 peers.²⁶



3.3 Sustainability and Resilience



The 2017 review found that:

- Oslo continued to rate as one of the least polluted and least 'at-risk' cities in the world. The city performed slightly less well in measures of the sustainability practices of city industries and businesses.

Since 2017:

- As data is becoming more available, Oslo is now gaining more recognition for its sustainability successes, particularly in the fields of industry and business. In a globally influential review of the sustainability practices of hotels, venues and convention bureau, it ranks 2nd out of 30 cities, up significantly from 18th in 2016.²⁷ This is mostly due to improvement in the performance of suppliers such as hotels, caterers and venues and improved certification of buildings and businesses in the industry.

- Environmental quality remains high compared to other leading cities. Although others are making big efforts, air pollution in Oslo is still relatively low: in one globally influential review, Oslo emerges as the 13th least polluted among 43 peers.²⁸ It is Oslo's excellence in terms of its

low noise pollution that emerges as outstanding this year. One significant new index ranks Oslo 7th out of 100 cities globally for its low levels of light, noise and air pollution combined – or 3rd among 31 peers.²⁹ And in the globally influential Mimi World Hearing Index, which measures noise pollution, Oslo places 3rd.³⁰

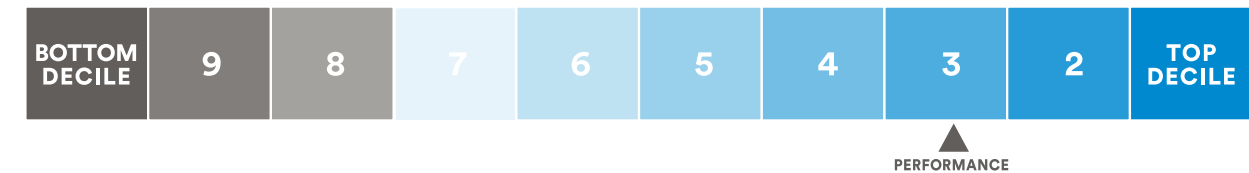
- CO₂ emissions in Oslo are measured as being somewhat higher than other cities and prevent the Region from establishing clear leadership status for its sustainability credentials. In the environment section of the IESE Cities in Motion Index, which is substantially linked to greenhouse gas emissions, the city has slipped 12 places, from 10th to 22nd, since 2016.³¹ Meanwhile, a recent review of 100 Smart Cities positions Oslo as 60th for its per capita emissions – 15th among 30 peers.³²

- Meanwhile Oslo has gained more recognition as a bicycle-friendly city, entering the top 20 of a globally influential review of the field for the first time:

«Every year dishes up a bicycle urbanism darling and this year it is Oslo, roaring up the index from mid-table and occupying 19th. A city that shows what political vision and investment can do».³³

Mikael Colville-Andersen, CEO, Copenhagenize Design Co.

3.4 Work-life Balance



The 2017 review found that:

Oslo's high costs continues slightly overshadow its strong reputation for a positive work-life balance.

Since 2017:

- Oslo has appeared in a number of indices that measure previously under explored aspects of work-life balance. The Region generally tends to perform well in these new measures and this could be an emerging area of reputational strength in future.

- Oslo emerges as a low-stress and happy city with a healthy work-life balance. In a global review of the best cities for families, the city ranked 1st globally for happiness, and 15th for the quality of its maternity and paternity laws (6th among 31 peers).³⁴ Oslo was recently ranked the 7th least stressful among 32 peers, due to its high quality public transport, high purchasing power, and high levels of gender equality.³⁵

- Cost of living and housing slightly erode Oslo's performance in this area. In a recent global study by Deutsche Bank, Oslo was rated as the city with the highest cost of living except for Zurich.³⁶ Meanwhile, in Mercer's latest Cost of Living Survey, Oslo emerged as the 8th most expensive city among its peer group of 38, a slip of 3 places compared to 2016.³⁷ Affordability of food for local residents is also an issue - Oslo ranks 38th out of 100 globally for this measure, but 14th among 22 peers.³⁸ Although it is not clear how much these affect work-life balance, these scores tend to prevent Oslo entering the top 10 of many of the new generation of quality of life indexes.

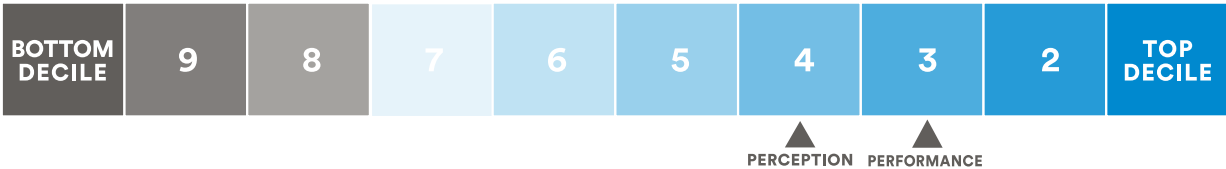
- Other factors holding back Oslo's work-life balance have emerged. A new study ranks Oslo only 55th out of 85 cities globally for the number of vacation days, or 21st among 28 peers.³⁹ Ways to measure mental health are now appearing, and the

first studies look at indicators where Oslo does not do so well. One recent Index places Oslo 118th out of 150 for mental health, due to a combination of high suicide rates, low awareness of mental health issues, and a small number of psychologists per capita.⁴⁰ Whether or not these figures fully correspond with the reality on the ground, it will be important for Oslo to re-affirm its credentials in this area.

4

Hospitality

4.1 Attractiveness to Visitors (attractions, landmarks, shopping, food, events)



The 2017 review found that:

Oslo's cycle of tourism growth relative to other cities had continued. The city had begun to gain recognition in formal and informal perception measures of visitor attractiveness. However, visitor appeal continued to be limited by real and perceived costliness.

Since 2017:

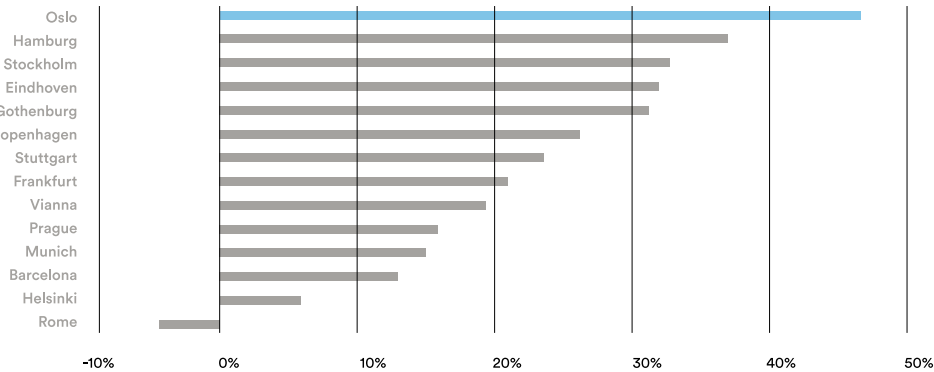
- Oslo has gained more recognition in more informal reviews of the city's culinary scene. In a new index of the world's best food destinations, Oslo ranks 16th of 100 cities globally, or 6th among 22 peers overall.

Oslo also performs well in individual measures: it ranks 9th (4th among peers) for expert opinion and 22nd (7th among peers) for rating of high-end restaurants. The city scores less well, however, for the diversity of its cuisine (54th, or 18th among peers).⁴¹

- Oslo also increasingly appears in more informal measures of the city's openness to tourists. In TravelBird's new Most Welcoming Cities index, Oslo ranks 8th out of 100 cities globally, or 4th among 24 peers.⁴²

- The absolute size of the city's visitor economy has increased further. The number of international tourist arrivals in Oslo has increased by 47% since 2012, significantly more than in any other European peer city.⁴³ Meanwhile, in a globally influential measure of international outreach, the city has climbed three places since 2016⁴⁴, and a new global connectivity index that measures the number of direct international flights to the city positions Oslo as the 31st most connected worldwide, or 12th among 21 peers, a strong position given the region's relative remoteness.⁴⁵

Change in international tourist arrivals at tourist accommodation, 2012-2016, NUTS2 regions.



- Oslo performs well for the quality of its key visitor institutions and attractions, and in a new perception-based review of the best cities to visit, it ranks an improving 9th among 17 peers.⁴⁶ This is a positive result in a competitive field – and Oslo's

inclusion in this survey reflects its growing status. However not all measures of Oslo's visitor brand have improved. In the latest version of Resonance's World's Best Cities Index, Oslo ranks 29th among 43 peers, a fall from 2016.⁴⁷

- Cost remains an important deterrent for potential visitors. In the most recent version of the Expatistan Backpacker Index, Oslo ranked the 11th most expensive city for visitors to travel to globally, or the 4th most expensive among 25 peers.⁴⁸

4.2 Attractiveness to Talent



The 2017 review found that:

Oslo's ability to attract talent has been improving all the time

Oslo was demonstrating a capacity to appeal to new kinds of talent, including ultra-high net worth individuals. Cost of relocation was one of the most important deterrents for prospective talent.

Since 2017:

- A number of new measures show Oslo registering on the global radar as an exciting place to move to and build a career. In INSEAD's most recent version of their globally influential Talent Competitiveness Index, Oslo ranked 3rd out of 90 cities, behind only Zurich and Stockholm.⁴⁹ Meanwhile, in a new perception-based review of the best cities to visit and live and work in, the city ranked 6th among 17 peers in the 'live' category, and 9th in the 'work' category. Across the three categories, Oslo placed just behind Stockholm but ahead of Helsinki and Copenhagen.⁵⁰

- Oslo is becoming more renowned for its ability to attract professionals with families. In a new global review of the best cities for families, Oslo ranked 2nd globally, behind only Copenhagen, due to its high housing affordability, low pollution levels, and strong maternity and paternity laws. In the same review, the city also performed fairly well on measures of expert perception: 30th globally according to the opinion of parents (17th among 31 peers), and 22nd globally according to professionals (13th among peers).⁵¹ As is common, perceptions of Oslo are higher for those who have experienced the city.

- Oslo's appeal to university students has fallen slightly, due to a decline of the city's universities in major university rankings. This has affected the city's position in some wider rankings.

- Ranking affordability and internet speed constrain Oslo's performance in measures about attraction of millennial talent. In the most recent version of Nestpick's Millennial Cities Ranking, the city ranked 70th globally, down from 26th in 2017, or 28th among 36 peers.⁵² The decline is due to a change in methodology which now weights more heavily the factors that millennials deem to be most important, such as housing affordability, internet speed and cost of food, areas where Oslo tends to perform less well.

- Cost of relocation also affects Oslo's position in terms of appeal to prospective talent. Oslo ranks as the 5th most expensive among 10 peers, or the 14th most expensive city globally, a slip of two places compared to in 2016.⁵³ Another major study found it to be the 9th most expensive city for expats of 340 cities globally, or the 3rd most expensive among its peer group.⁵⁴ These factors continue to be influential in global studies.

4.3 Friendliness of the People



The 2017 review found that:

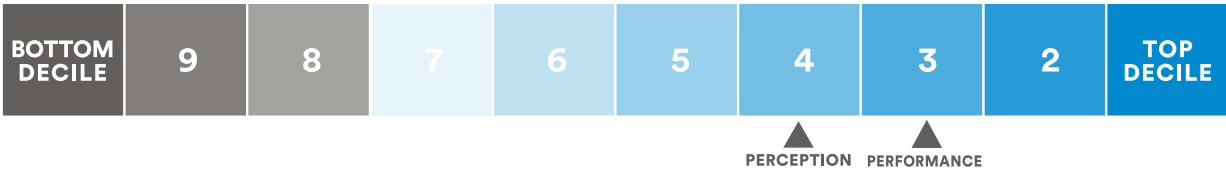
Oslo was still absent from most international rankings and surveys rating city friendliness, including those assessing openness to minorities.

The city performed below par in an index measuring expat perceptions of the ease of settling in, due mainly to difficulties in socialising.

Since 2017:

- Oslo has not appeared in any top lists for friendliness, but its tolerance and inclusion is captured in informal sub-measures that are part of larger studies. For example, the latest version of Nestpick’s Best Cities for Millennials includes an LGBT friendly score as a sub-index, and measures the attraction of LGBT travellers, and LGBT safety and legal rights. Oslo ranks 54th out of 110 cities globally, but 26th among 36 high performing peers for this measure.⁵⁵ Elsewhere, Oslo is not included in related benchmarks even though Stockholm and Helsinki are.⁵⁶

4.4 Welcoming to foreigners



The 2017 review found that:

Oslo became the highest ranked large city in Europe in terms of city policy for cultural integration, ranking very highly for cultural programmes, management of public space and services, labour market integration and ethnically mixed neighbourhoods.

Since 2017:

- Oslo is beginning to be recognised in more measures that assess how welcoming the city is to foreigners.

In particular, the city’s tolerance and openness are gaining more recognition. In a recent review of the world’s most welcoming cities, expert perception ranked Oslo as 4th globally, or 3rd among 26 peers behind Copenhagen and Stockholm.⁵⁷ Meanwhile, in Nestpick’s analysis, Oslo ranks 9th out of 110 cities globally for immigration tolerance, or 4th among 36 peers.⁵⁸ This is becoming a major reputational advantage

- Oslo is not yet recognised as a city in which residents are open to the idea of hosting tourists at home, as is increasingly common throughout the world. In TravelBird’s Most Welcoming Cities Index, Oslo ranks 59th out of 100 for this measure, or 18th among 26 peers.⁵⁹

Hospitality and Oslo’s Cultural Dividend

Oslo’s is improving its reputation for culture thanks to many years of investment in projects such as the Opera House, National Museum, the Astrup Fearnley Museum of Modern Art, the new Public Library and the Munch Museum, and at the regional level projects in Kongsberg and elsewhere. These increase global attention on Oslo while also making Oslo’s cultural amenities and public space much more attractive relative to other city-regions.⁶⁰

As we observed in Part 1 of this report, the results of this investment include that:

- **People who live and work in Oslo are increasingly happy with the cultural facilities on offer.**⁶¹
- **More international influencers and media recommend Oslo as a place to visit, stay, study and start up.**⁶²
- **More tourists are arriving and sampling Oslo’s culture.**⁶³
- **Oslo is more capable and confident at innovating in the cultural and creative economy, which has spillovers into other high growth sectors.**⁶⁴ The region is seeing new relationships between citizens and culture, more cultural experimentation, and a greater emphasis on tactical urbanism and public art.

The Slow Space project, including The Future Library and The Futurefarmers, are some of the projects that have captured international attention. [Future Library](#) in particular has gained international fame.⁶⁵ As of 2017, the project had reached 45.8 million people on social media and appeared in 124 media articles globally. It is also helping Oslo to demonstrate to the world some its core values: pioneering, enriching, and real.⁶⁶ Meanwhile [The Big O Festival](#) in 2017 helped to address the cultural perception gap about Oslo internationally, with 86% of attendees saying they would come back to Festival next time.

The role of culture in the future Oslo region

As Global Oslo continues to grow into the mid 21st century, its society will become more diverse and acquire new forms of cultural heritage, while it will also host a larger and active older population. Its economy will continue to transition from a commodities, resources, and related services economy to one based on invention, discovery, and high quality experience.

Culture will remain a priority if Oslo is to build its future narrative and identity to match the changes ahead. This is an era when many other city regions are globalising and investing much more in cultural cohesion, celebration and profile. Many are creating new kinds of cultural institution, or relocating major cultural functions to new areas of their expanding region. They are not creating one signature ‘Cultural District’ but finding ways to embed culture to underpin a wider spatial strategy and host new kinds of economic activity. Culture is part of the strategy to densify locations, improve public space and manage the life cycle of change in districts that are evolving quickly.

Oslo has made major progress in this area, and benchmarks will likely ‘catch up’ with reality to reflect this further as more projects come on-line. In the next period initiatives to maintain and develop the offer further may include:

- **Combining cultural investment more deliberately to achieve other goals in terms of education, wellbeing, cohesion and inclusion. This will help cultural investment to directly serve the big cycle of population growth, and the social, neighbourhood and placemaking needs that come with that. Demonstration of how culture already contributes and will contribute to these wider policy goals will also be important.**
- **Oslo’s development as a more integrated city region may require more strategic planning about how cultural invest-**

ment will serve the future structure of Oslo as the Region grows towards 2 million people. Choices about the future location of the next cycle of cultural infrastructure will need to optimise the role of culture in regional success.

- **The world’s familiarity with Oslo’s cultural offer will benefit from ensuring cultural locations are effectively branded, signposted and managed. This will include synchronising culture with education, innovation and public space.**
- **New and additional investment instruments and funding sources may help maintain the rate of cultural development and innovation.**
- **Culture may become an important part of Oslo building its soft power and diplomatic roles further, on top of its existing status as a ‘peace city’. This can help broaden the city’s appeal whilst also reinforcing its existing strengths.**
- **Mapping the links between Oslo’s culture and its economic development and innovation appeal may be a task that can highlight the impact of culture and of establishing how culture can best support Oslo’s innovation ambitions.**
- **Providing as much up-to-date and relevant data on Oslo’s cultural infrastructure and impacts will help the city be more accurately evaluated and recognised in global benchmarks.**

5

Gouvernance

5.1 Social Stability



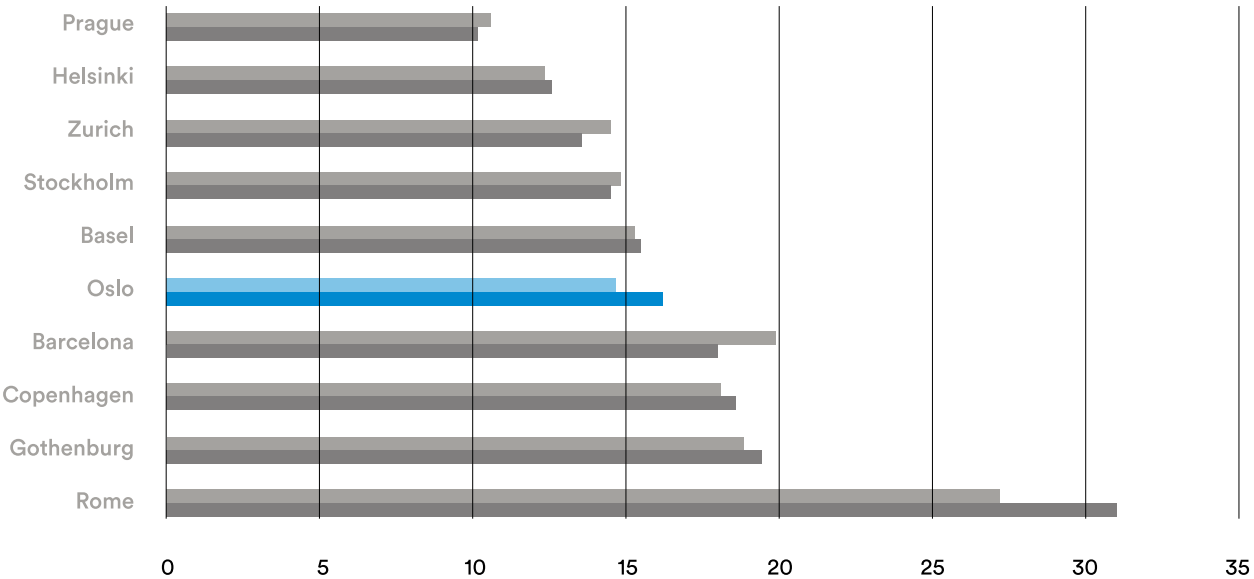
The 2017 review found that:

Oslo continues to be regarded as a highly equal global city. The city continues to be rated as one of the most socially inclusive cities in Europe and is one of few to have improved its record since the global financial crisis.

Since 2017:

-Oslo continues its tradition as one of the most socially inclusive European cities, with only 16.1% of the population at risk of poverty or social exclusion. This is almost half the proportion in Rome, and, although higher than in some Scandinavian cities such as Helsinki (12.5%) and Stockholm (14.5%), is significantly lower than in others, including Copenhagen (18.5%) and Gothenburg (19.1%).⁶⁷ But this represents an increase since 2016: Oslo has been overtaken by Stockholm and Basel for this measure.

People at risk of poverty or social exclusion by NUTS 2 regions, as % of total population.



- The major measure of social cohesion saw Oslo slip five places, from 16th to 21st. This may be due to recent business growth, as more dynamic business centres generally tend to have lower social cohesion scores.⁶⁸

- Oslo is increasingly appearing in more informal measures of social stability, which highlight Oslo's stellar record of race and gender equality. In a recent review of the world's most stressful cities, it ranked 4th out of 150 cities globally for gender equality (2nd among 32 peers), and 25th for race equality (9th among 32 peers).⁶⁹

5.2 Quality and Integrity



The 2017 review found that:

Oslo had slipped marginally in the leading global review of this measure but remained at the top of its peer group. The city achieved respectable ranks for the quality and reputation of its institutions and architecture, but cities with a more widely renowned physical fabric tended to do better.

Since 2017:

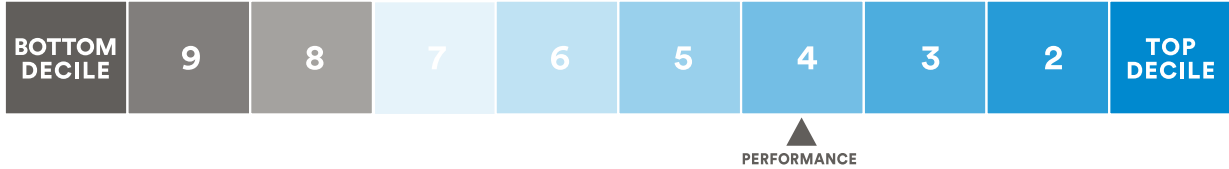
- Oslo's high quality of systems and services are beginning to be recognised in more informal reviews measuring smartness, design and reliability. In the new EasyPark Smart Cities Index, Oslo ranked 7th out of 100 cities globally for expert perceptions of city smartness, or 5th among 30 peers. In the same index, Oslo also recorded strong performances for citizen participation (21st out of 100 / 9th among peers) and the high percentage of green public areas in the city (22nd out of 100 / 10th among peers).⁷⁰

- New data shows Oslo has fairly high citizen satisfaction in city transport systems. In the EasyPark Smart Cities Index, the city ranked 44th out of 100 cities for satisfaction with public transport (20 among 30 peers).⁷¹ Meanwhile, a recent review of the world's most welcoming cities positioned Oslo as 26th out of 100, or 12 among 26 peers, for satisfaction with the city's main ports of entry, including airports and prominent train and bus stations.⁷²

- The major measure of urban quality saw Oslo climb two places, from 5th to 3rd globally, in recognition of its outstanding health outcomes, high levels of bicycle use, and critical mass of architects.⁷³

- Oslo, along with other Scandinavian cities, continues to be overlooked in certain reviews that focus on quality and integrity. For example, it was not included in a recent global review of the quality and expert perceptions of city architecture, cleanliness and accessibility.⁷⁴

5.3 Transparency and Accountability



The 2017 review found that:

Oslo continues to benefit from high levels of institutional effectiveness nationally, both real and perceived. Oslo’s governance rank in the most comprehensive global measure had fallen below most of its peers.

Since 2017:

- Oslo continues to benefit from strong institutional framework (with Norway ranking 6th globally due to high levels of public trust in politicians, high levels of transparency in government-level decision making, and strong auditing and reporting standards).⁷⁶ Similarly, perceptions

of corruption in Norway continue to be very low – the joint 3rd lowest globally, according to Transparency International.⁷⁶ Citizen surveys continue to affirm high trust equilibrium in Oslo relative to most European cities.

- Oslo is beginning to appear in informal measures of transparency and reliability and tends to perform relatively well. A recent study of global smart cities ranks Oslo as 42nd out of 100 for digitalisation of government, or 14th among 30 peers.⁷⁷ This is primarily due to the city’s improving

quality of digital infrastructure and a high traffic of local government web-sites as a percentage of the population.

- Oslo has remained steady or faltered slightly in formal measures of transparency and reliability. In the IESE Cities in Motion Index, its governance rank has slipped 12 places, from 65th in 2016 to 77th in 2017. Its public management rank, meanwhile, has held steady at 96th.⁷⁸

5.3 Status and influence



The 2017 review found that:

Oslo had begun to register a better performance in terms of hosting institutions and events.

Oslo’s ability to “tell its story” was distinctly average, as larger cities and major tourist destinations tend to do better for this measure.

Since 2017:

- Few major indexes specifically emerged on this topic, but Oslo’s increasing presence in reputational benchmarks is a positive sign (see Section 6), and its environmental initiatives are gaining increasing global profile.

- Oslo has continued the trend towards hosting more globally significant events. The city has improved upon its rank for the number of high-level rotating annual meetings, jumping four places to 33rd out of more than 350 cities worldwide, or 12th among 43 peers.



6

Oslo’s Visibility in Global Benchmarks

Oslo continues to maintain a steady and consistent rate of improvement in terms of its visibility in global benchmarks. Between January 2017 and January 2018, the city appeared in 43 benchmarks, making it the 16th most ranked city among its peer group of 50. This is significantly up on 34 appearances from January 2016 to January 2017: at 26%, Oslo has the 2nd highest year-on-year growth among its peers, behind only Warsaw. Oslo continues to be more visible than other high-innovation cities such as Vancouver, Hamburg, Tel Aviv and San Diego.

Number of appearances of top 20 most visible peer cities in global benchmarks (l) and year-on-year change in number of appearances (r).

		No. of appearances in global benchmarks , Jan 2017 – Jan 2018	No. of appearances in global benchmarks, Jan 2016 – Jan 2017
1	Sydney	60	52
2=	Copenhagen	57	51
2=	Stockholm	57	54
4	San Francisco	56	53
5	Berlin	54	56
6	Barcelona	53	53
7	Vienna	52	45
8	Zurich	51	41
9	Dublin	49	50
10	Melbourne	48	39
11	Rome	47	43
12=	Boston	46	38
12=	Frankfurt	46	39
14	Munich	45	46
15	Prague	44	37
16	Oslo	43	34
17	Vancouver	39	38
18	Warsaw	38	29
19=	Hamburg	35	30
19=	Helsinki	35	38

Oslo continues to maintain a steady and consistent rate of improvement in terms of its visibility in global benchmarks. Between January 2017 and January 2018, the city appeared in 43 benchmarks, making it the 16th most ranked city among its peer group of 50. This is significantly up on 34 appearances from January 2016 to January 2017: at 26%, Oslo has the 2nd highest year-on-year growth among its peers, behind only Warsaw. Oslo continues to be more visible than other high-innovation cities such as Vancouver, Hamburg, Tel Aviv and San Diego.

Oslo has recorded some breakthrough appearances and has appeared for the first time in high-profile indices such as the INSEAD Global Talent Competitiveness Index and PwC/ ULI Emerging Trends in Real Estate Europe. Oslo has also appeared in many new and influential indices, including:

- The UNHABITAT Global Urban Economic Competitiveness Report
- DeutscheBank’s Mapping the World’s Prices
- ppi’s The App Economy in Europe: Leading Countries and Cities

The recent year has seen significant growth in the number of more informal benchmarks of city performance, many of which are based on new data methods such as online data mining. Generally, these new benchmarks are publicly available online and user-friendly. Cities can generally be sorted either by their overall ranking or by their ranking in any of the available sub-measures (of which there tends to be several).

Oslo is widely covered in these benchmarks. They include:

- Caterwings’ Best Food Destinations
- The EasyPark Smart Cities Index
- Homeday’s Best Cities for Families index
- TravelBird’s Most Welcoming Cities
- Nestpick’s Best Cities for Millennials and Best Start-up Cities for Employees
- ZipJet’s 150 Most and Least Stressful Cities ranking.

As this type of benchmark becomes more prominent, Oslo is well-placed to take advantage of its reputation for having an open and easily accessible data platform in order to become even more visible over the next 2-3 years.

Number of appearances of top 20 most visible peer cities in global benchmarks (l) and year-on-year percentage change in number of appearances in global benchmarks (r).



Looking ahead: Digital Platforms and the Future Battle for Global Attention

Part of the contest for globally mobile activity is the battle for global attention.

Cities are fuzzy concepts that mean a million things to a million people. It is common for cities to have multiple identities in the global marketplace. So how to reach customers in a very crowded market is a major challenge, especially in a context when the internet has revolutionised the perception shaping and perception management process. In 2018 mobile talent, innovators, entrepreneurs, students, visitors and investors consume content through a huge variety of connections and channels.

The response varies from city to city. The cities with big budgets develop large volumes of place branding content. Some use influencers to front videos and advertising as a popular tactic to build reach and provide a personal touch. These approaches have their advantages but usually have to be used authentically and distinctively to succeed and produce a ROI. Other cities prefer to run nimble, cost-effective campaigns, and work on the deeper global identity of their place that gives their city the benefit of the doubt and offers opportunities for unpaid advertising and third party endorsement.

The future identity-building and brand-building challenge for cities is being disrupted by new technology tools that can develop an unprecedented degree of customisation, iteration, and subliminal messaging. This presents new opportunities and risks to cities, including to Oslo.

How can the new tech change the way cities reach out to prospective 'customers'?

There are six main ways that the new generation of advanced computing (machine learning, AI) is expected to transform the way cities identify, pitch to, and shape perceptions of target audiences in key markets.

– For predictive marketing to give a better understanding of customer activity, and more reliably predict who a city's potential customers really are, what they are trying to accomplish. In principle this can allow a city to provide a call-to-action on the screen of prospective talent, student, visitor and investor at the perfect time when a key decision is being made.

– To allow cities to draw insight from the people who do visit and sample the city to understand their preferences, and apply this to their branding and identity-building.

– To develop sophisticated Chatbots that allow cities to promote themselves and harvest information about prospective tone, guide people to a decision about a city or a location choice.

– For image recognition to help scour social media and websites to trace related photos to their brand and place 'in image' advertisements for a more powerful 'in the moment' user experience. This saves cities from having to research their brand and be reactive to direct messages, but instead gives them an increasingly realistic understanding of how many advocates, promoters and detractors they have around the world.

– Better copywriting and creation of content that can learn the rules and patterns of existing content and assemble industry-specific and audience-specific content which can appeal to numerous different niches.

– Conversion rate optimisation allows marketers to test several elements of a promotional campaign or web city customers. Chatbots will be able to understand mood and design at the same time, to quickly uncover high-performing content that appeal to more customers.

Who is already using these new technologies and how is it relevant to cities?

– Yelp uses machine learning to transform the way pictures are classified and improve user experience. It helps match images to real places and will be used by cities to improve mental associations between cities and images.

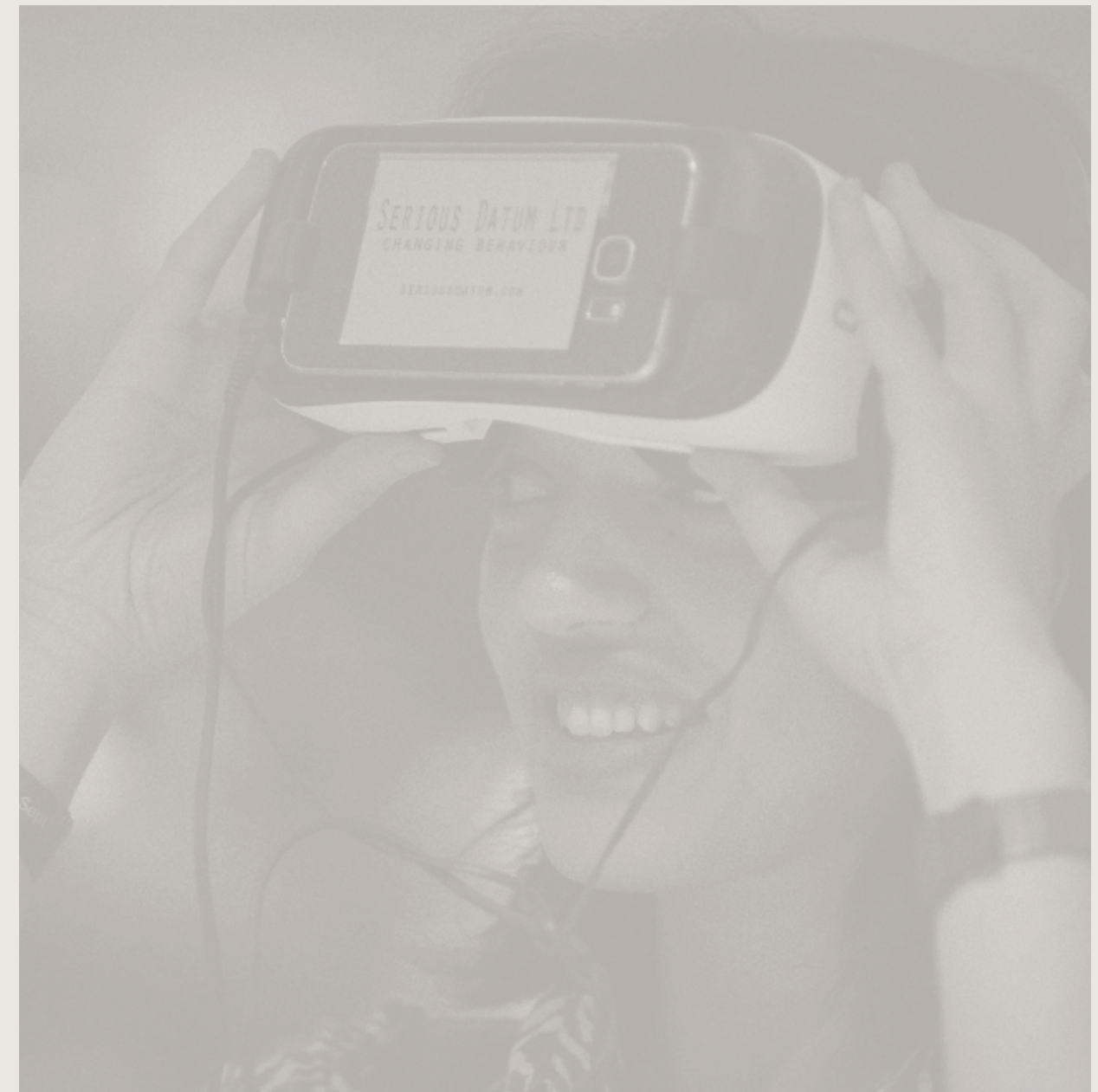
– Twitter uses AI to score content according to various metrics, and display tweets that drive the most engagement for each individual. This model will increasingly be used by cities to target audiences more effectively.

– Google is building 'neural networks' which will ultimately provide marketers with more effective ways of predicting what consumers will do and drilling down to very detailed segments of buyers.

Until recently, the new suite of tools were only available to very large companies with big support staffs. But they are gradually becoming cheaper and more useable on smaller budgets. They are likely to soon become employed by many leading edge cities, and it is a trend Oslo has to monitor closely and respond to as a positive opportunity.

Recommendations to Oslo region

- Oslo should be a leader and first mover. Be proactive and experimental as the pace of uptake is very swift.
- Oslo should remain authentic and communicate the city's core values.
- Oslo should continue to build regional partnerships to pool resources and creative assets. The collaboration of business, academia and social enterprise will help use digital transformation to ultimately create more attractive places.




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