



Greening Sandyford Business District



A report on local policies and statistics relevant to the greening and resilience of the Sandyford Business District in the context of the local impact of climate change.

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Table of Contents

A. I	introduction and Brief	2
B. E	Executive Summary	3
C. F	Policy context	5
1.	dlr Green Infrastructure Strategy	5
2.	dlr Climate Action Plan 2024 - 2029	7
3.	Sandyford Urban Framework Plan	11
C. S	Sandyford Business District Residential Profile	16
1.	Total Population	16
2.	Age Profile	16
3.	Households	18
4.	Families	19
5.	Diversity	20
6.	Mobility	22
7.	Economic profile	24
D. A	Affluence and Deprivation in Sandyford Business District	25
Appe	endix A: Small Area Codes for Sandyford Business District and Dublin Docklands	29
Арре	endix B: Neighbouring Population of the Sandyford Business District – Census 2022	31
Agge	endix C: Small Areas Data re Sandyford Business District re HP Deprivation Index	33

A. Introduction and Brief

The Sandyford Business District BID Company is a partner in the IB Green Project that aims to understand climate effects and develop subsequent mitigation and adaptation actions in industrial and business parks located in North-West Europe. Such actions could for example include initiatives to reduce heat stress, improve air quality, and create healthier living and working environments.

Specifically, the project will assist the BID Company and Dún Laoghaire-Rathdown County Council to design a civic park located in a densely built area of the Sandyford Business District to address the needs of green infrastructure and liveability for residents and workers.

The purpose of this report is to provide a local policy context for greening the District as well as a residential profile of users and those affected by the lack of adequate green infrastructure in the District.

Sources used in this report are the dlr Green Infrastructure Strategy, the dlr Climate Action Plan 2024 – 2029, the Sandyford Urban Framework Plan, the 2022 Census, and the Pobal HP Deprivation Index.

B. Executive Summary

The main conclusions from this report can be summarised as follows:

- a) Despite its relative piecemeal initial development prior to the adoption of the Sandyford Urban Framework Plan in 2011, it is evident that the Sandyford Business District today is more resilient and on a sustainable development path in comparison with the rest of dlr County. The following statistics from Census 2022 support this conclusion:
 - i. The most recent count of the residential population of Sandyford Business District is a total of 4,854 with 2,392 females and 2,462 males. The population lives in three of the four business parks that make up the Sandyford Business District (excluding South County Business Park). The total area size for the three parks is 1.9 km². The population density is thus 2,555 persons/km² compared to 1,850 persons/km² in the County.
 - ii. The whole population in the District live in apartments compared to only 1 in every 4 households in dlr County.
 - iii. Less than 1 out 5 of the working population in the District drive to work, while in the County the proportion is closer to half the working population.
 - iv. Nearly half the households in the District don't own a car, while 2 out of every 5 households in the County own two or more cars per household.
 - v. At the same time 1 out 5 of the population living in the District walk to work compared to just over 1 in 20 of the working population in dlr County, while 1 out of 4 of the population in the District use the LUAS to go to work.
 - vi. Whereas a third of those in dlr County traveling to school, college or childcare are car passengers, it is less than a quarter of those resident in the District. Moreover, a quarter of those living in the District who travel to school, college or childcare use the LUAS, compared to less than 1 in 10 in the County using the train, DART or LUAS.
 - vii. The largest cohort of the population in the District is in the 25 to 44 years old age bracket, namely 2,809 or 57.8% compared to this cohort in the County of 27.6%.
 - viii. The size of households was expected to be smaller than the average for dlr County with comparatively more households consisting of a single person or couples with no children. Surprisingly, this is not the case. In fact the proportion of households that are single person or couples with no children is less than the average for dlr County, that is, 19.1% and 20.4% respectively in the District compared to 22.1% and 21.2% in dlr.
 - ix. It is predictable that the economic status of a higher proportion of persons 15 years and older living in the District will be 'At Work' (70.8%) compared to the rest of dlr (55.6%), given that the main purpose of the creation of the Sandyford Business District is a mixed use built environment where people can live, work and play.
 - x. Using Pobal's HP Deprivation Index that is based on Census 2022 data, all but one small area in the District is classified as affluent. This is probably the case because factors like third level education and age dependency ratio significantly influences the Index, on

which the District performs well compared to the national averages. Given that the Deprivation Index is used as a proxy for affluence (mainly because household income is not asked in the Census in Ireland), in my opinion, it might be more apt to not describe the opposite end of the scale as affluent, but rather as resilient. With an age dependency ratio of 4 workers for every one dependent in the District and third level education of above 70%, the population in the District has the potential to face economic headwinds.

- xi. In addition, the District has one of the most cosmopolitan diverse populations in Ireland. It is generally thought that diversity enhances the potential for creativity and problem-solving, therefore also enhances the resilience of the population. Only a minority in the District was born in Ireland (32%), compared to three quarters of the population in the rest of dlr County (76%), while 51% of the District's population were born outside of the European Union, compared to 12% in the rest of dlr County.
- b) The urban form in Sandyford Business District is distinctly different from the rest of dlr County. The area has the tallest building heights and highest density in the County. It also lacks adequate green infrastructure. The local policy context however does not adequately address this issue, for example:
 - i. The Sandyford Urban Framework Plan (SUFP) has a set of objectives "to provide for a variety of open spaces that cater for the different requirements of the diverse users in the District" (Objective SUFP8) and "to ensure the provision of a high quality, safe, attractive and functional public realm" (Objective PR1). However, the achievement of such objectives in the Plan are contingent on interventions such as the allocation of funds for new park developments (e.g. from development levies) and more detailed planning of the greening of the District.
 - ii. The dlr Green Infrastructure Strategy proposes ambitious green corridors adjacent to Sandyford Business District that will be beneficial for residents and workers, but it has no priorities for improving green infrastructure in the District.
 - iii. The dlr Climate Action Plan 2024 2029 includes several practical actions to address urban greening and aspects such as sustainable urban drainage. There are however no specific actions pertaining to the District. Also, disappointingly, there are no specific initiatives for Council to partner with key stakeholders such as the Sandyford Business District BID Company and to collaborate on climate actions.
- c) The IB Green Project provides an excellent opportunity for the Council and the BID Company to get new perspectives on addressing the issues related to lack of green infrastructure and greening initiatives in the District. Clearly to continue in the conventional way (as per the current SUFP) will not hasten any meaningful actions. The value of the IB Green Project is that it could spark new ideas for urban innovations and an enrichment of the local planning process.

This report should be part of a set of knowledge building and sharing interventions to assist with the significant improvement of greening the Sandyford Business District. Other interventions include building personas of the employees in the District and using POWSCAR data (Census 2022) for an employee profile similar to the residential profile which could help to understand the user needs in the District.

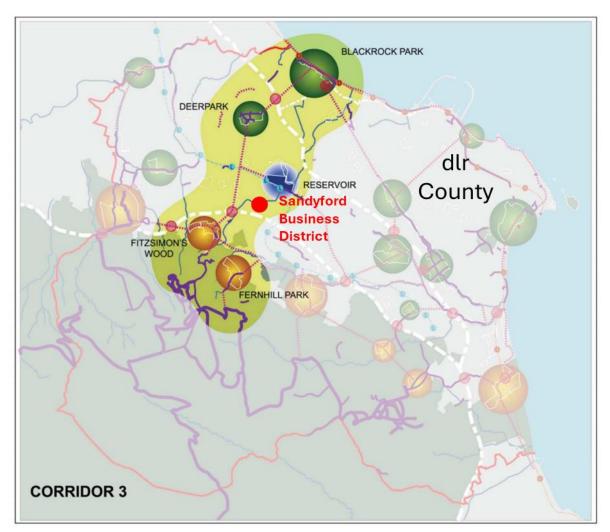
C. Policy context

1. dlr Green Infrastructure Strategy

The development of green infrastructure in the county of Dún Laoghaire-Rathdown (dlr) - one of the four administrative areas that form the Dublin Metropolitan Region – is a policy priority as per the principal spatial strategy of the county, namely the dlr County Development Plan 2022 – 2028. Appendix 14 of the Plan contains the dlr Green Infrastructure Strategy.

The core of the strategy is to create new and improved connections between open green spaces in the county in order to establish a network of accessible spaces across the urban areas. Six corridors have been identified where ecological fragmentation will be restored or mitigated.

Two of these green infrastructure corridors are in close proximity to the Sandyford Business District namely Corridor 3 and Corridor 6 as per maps below.

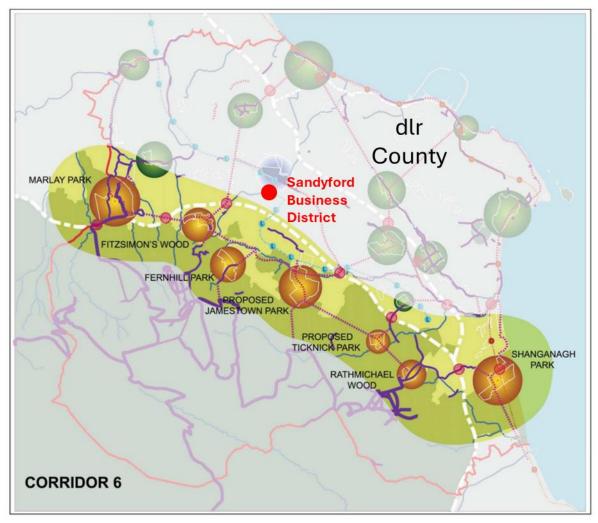


Map 19: Corridor 3. Blackrock to the Mountains.

The Strategy identifies two specific actions in Corridor 3 that directly impact on Sandyford Business District. The main action is to use the creation of Corridor 3 to increase accessibility to open spaces for people who work and live in the Sandyford Business District. In practice it would mean that there will be

greenways connecting Sandyford to the mountains and to the sea via public parks and open spaces, enhancing the quality of life and wellbeing of residents and workers.

The second action is aimed at increasing permeability across the M50 motorway that cuts off Sandyford Business District from the mountains and the new suburbs being developed in on the foothills of the Dublin mountains. This will focus on expanding the current car-centric crossings of the M50 with dedicated lanes for cycling and walking.



Map 22: Corridor 6. Gateway Parks.

Corridor 6 consists of a chain of large parks and natural areas nestled in the foothills of the Dublin Mountains on the southern boundary of the Sandyford Business District. These are important for water retention and the biodiversity of the county. The main action will be to create wetlands and river restoration to increase water storage and biodiversity. Several new housing developments were completed in this corridor in the past three decades. The challenge will be to balance the human activity with the needs of the natural environment.

Corridor 6 also includes several woodlands that are important carbon sinks for the county and serve as recreational areas of high amenity and natural beauty within the radius of 15 minutes by bicycle from Sandyford Business District.

The dlr Green Infrastructure Strategy is an integral part of the dlr County Development Plan and thus has to be taken in consideration with any planning applications for new developments. The Strategy also

promotes a heightened awareness of the value of the natural environment and specifically the nature-based solutions related to water retention and carbon capture that are critical actions to mitigate climate change. If the Strategy is implemented, the long-term benefits include improving the local character of places and the health and sense of well-being of local communities.

There is however the risk of unintended consequences of a strong focus on green corridors, namely that where housing and the built environment is concentrated with new compact (higher density) developments outside of the corridors such as in Sandyford Business District, that the spatial planning objectives will not sufficiently emphasise the need to maintain green infrastructure.

2. dlr Climate Action Plan 2024-2029

The dlr Climate Action Plan 2024 – 2029 is a comprehensive plan with several actions over six themes i.e. Energy and Buildings, Transport, Flood Resilience, Nature-based Solutions, Circular Economy and Resource Management, and Community Engagement. For this report, the focus is on the relevance of actions in two themes (Flood Resilience and Nature-based Solutions) that could advance the greening of Sandyford Business District.

Greening of dlr County is a priority in the mitigation of and adaptation to climate change. The local negative impacts of climate change are clearly spelt out in the Executive Summary of the $\underline{\text{dlr Climate}}$ Action Plan 2024 – 2029:

"Dublin Bay's Sea level appears to be rising faster than initially forecasted and has risen by twice the global average in the last 20 years. Both coastal erosion and flooding have been observed in recent years which has the potential to undermine critical infrastructure.

dlr County has also experienced extreme temperatures, as witnessed in 2018, with Met Éireann issuing its first ever Status Red warning for snow in February, followed by one of the hottest summers on record during June and July.

The number of days with heavy rainfall has also increased, and the amount of extreme flooding events has risen in the last 15 years. This heavy rainfall, resulting in flooding, damages both our infrastructure and our community due to businesses being forced to close.

All these extreme weather events clearly highlight the need to reduce the impacts that climate change is having on the environment, the economy and the residents of our County."

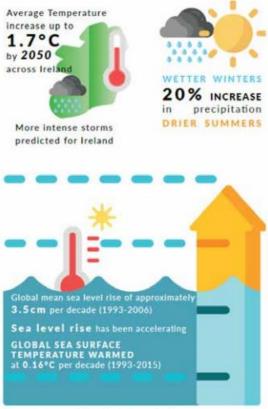


Figure 5.5 Current and future flood change risks 13

The dlr Climate Action Plan identifies a number of actions to advance Urban Greening and Nature-based Surface Water Management in the County, including:

- Action F9: Ensure Urban Greening opportunities are implemented in dlr Capital projects, including new builds and retrofits.
- Action F11: Ensure significant developments shall include urban greening as a fundamental element of the site and building design.
- Action F12: Develop a maintenance plan for Sustainable Urban Drainage Systems (SuDS) assets that are taken in charge by dlr, ensuring their continued operation; ensuring the plan takes nature-based solutions/ protection of biodiversity and avoidance of habitat fragmentation into consideration.
- Action F14: Improve the maintenance plan for the stormwater and surface water network, with the link to flood event forecasting and incorporate data of known locations with problems.
- Action F16: Maintenance of key lakes and wetlands, existing flood storage facilities to maintain storage capacity during severe weather events.

Explainer: Urban Greening

Urban Greening is a collective name for a number of activities such as:

- Green roofs
- Green car parking
- Greenways
- Water retention areas, e.g. wetlands and attenuation ponds
- Permeable paving
- Tree canopies
- Managed rewilding e.g. meadows
- More planting in public spaces and increasing biodiversity

Explainer: Why SuDs are important

In urban areas, there are many non-permeable surfaces such as roads and footpaths which means that water cannot drain naturally through the ground. In order to manage this, we have developed drainage systems that use pipes and sewers to redirect water. With climate change creating wetter winters and more frequent rainfalls in Ireland, the level of surface water will only increase, which can overwhelm traditional drainage methods and increase the effects of flooding.

Sustainable urban drainage systems (SuDS) are one part of the solution to this problem. SuDS takes inspiration from natural features and processes and aim to replicate the natural water cycle by allowing plants and soil to absorb rainwater at more natural rates. SuDS work by holding water back, reducing the strain on traditional drainage systems and absorbing pollutants that may enter our rivers, streams and oceans.

The dlr Climate Action Plan identifies a number of actions to conserve the natural environment in the County and advance nature-based solutions, including:

- Action N8: Carry out ecological audit and surveys of dlr lands and highlight areas at risk from climate change and areas for protection, restoration, and enhancement for carbon storage. Identify wildlife corridors and connectivity to the dlr Ecological Network.
- Action N11: Develop guidance on biodiversity inclusive design for housing development including social housing with green roofs, wetland & pond SuDS, green carparking, nest boxes, local soil and seed for landscaping, and wildlife friendly shrubs and native trees.

- Action N12: Develop guidance on biodiversity and cycleways/pathways to ensure that the location and design of greenways is not at the loss of biodiversity and to provide guidance on biodiversity enhancements.
- Action N13: Implement the dlr Tree Strategy (A Climate for Trees 2024-2030).
- Action N16: Create the Public Open Space and Parks Strategy.
- Action N23: Run Workshops on Nature Based Solutions, Green Infrastructure and Sustainable Urban Drainage Systems (SuDS).

Although climate action is often thought of as responses and remedies to a crisis, such actions in themselves have wider societal, economic and environmental benefits as per tables from the Plan:

POTENTIAL BENEFITS OF CLIMATE ACTION

ECONOMIC

- By adapting to climate change now, we can ensure that all future plans are climate-proofed and associated opportunities are maximised.
- By transitioning to a low carbon economy, we will encourage the creation of additional job opportunities across a range of disciplines.
- By using local solutions to mitigate and adapt to climate change, we can upskill our workers and generate employment.
- By promoting improvements in energy efficiency, we will foster innovation in both the public and private sectors.
- By using indigenous, sustainable sources for our energy needs, we can reduce our reliance on foreign fossil fuels.
- By transitioning to a circular economy, we can stimulate innovation and create employment in the reuse and repair sector.
- By becoming climate leaders, we are attractive to foreign direct investment from companies with a green corporate agenda.

ENVIRONMENTAL

- By using nature-based solutions to combat climate risks, we can increase the green infrastructure of the area and provide additional aesthetic value to our urban spaces.
- By improving our public transport and cycling networks, we reduce congestion and pollution and improve air quality and reduce noise impacts.
- By increasing resilience, we can protect our native flora and fauna.
- By implementing mitigation and adaptation actions now, we lessen the potential impacts on the environment in the future.
- By using nature-based solutions with, or instead of, hard engineering, we can reduce the associated costs of climate action, while increasing biodiversity.
- By providing networks of natural wildlife corridors through the urban environment we will help animal and plant species migrate through the changing landscape.
- By transitioning to a circular economy, we will reduce plastic pollution and use fewer natural resources.

SOCIAL

- By improving the energy efficiency of our social housing stock, we can reduce tenants' utility bills and lessen fuel poverty.
- By protecting against climate risks, we can reduce impacts on communities, their properties, and our services.
- By informing communities on the impacts of climate change and possible solutions in their areas, we can create networks of climate-resilient neighbourhoods.
- By implementing mitigation and adaptation actions, we can provide other opportunities for community benefits in terms of green spaces, and pedestrian and cycle routes.
- By increasing the number of trees, additional shading and privacy can be provided.
- By supporting community initiatives and working together we can build a greater sense of social cohesion.

HEALTH AND WELLBEING

Health co-benefits can occur from key climate change actions such as:

- By encouraging cycling and walking, we can improve the health of our communities.
- By implementing nature-based solutions to combat climate risks, we can make the area a healthier and more desirable place to live and work.
- By increasing energy efficiency and reducing the demand for fossil fuels, we will reduce greenhouse gas emissions and improve air quality in our area.
- By implementing aesthetically pleasing mitigation and adaptation measures to combat climate risks we can improve the mental health of our communities.

These benefits should be motivational for a comprehensive transition to a low-carbon economy and lifestyles in the County. Relevant for Sandyford Business District is for example the statement: "By becoming climate leaders, we are attractive to foreign direct investment from companies with a green corporate agenda".

The commitments in the Plan, however, is largely confined to the areas and assets which the Council controls. The Plan is much weaker on actions involving the broader society and key stakeholders which is clearly a missed opportunity and an omission given the gravity of climate change. For example, the Plan suggests under the theme of Community Engagement that "dlr's Climate Action Plan 2024-2029 sets out a roadmap to strengthen partnerships between dlr and communities such as the business community, sports clubs, community groups and resident associations" (p104). It even cites this case study below referencing the Sandyford Innovation Summit on Decarbonisation hosted by the Sandyford Business District BID Company. Yet none of the actions in this theme proposes a partnership between business organisations and other stakeholders, including Council, to collaborate on climate actions.

CASE STUD

SANDYFORD INNOVATION SUMMIT 2022

dlr was happy to support the annual Sandyford Innovation Summit in 2022. The theme was "Decarbonisation" and its impact on businesses and the general public with a live conference element over two days that included presentations, firesides, and audience Q&A sessions.

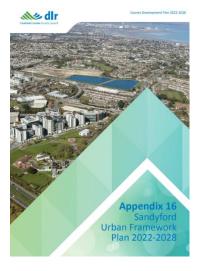
There was a significant exhibition showcasing the best in sustainable transport options that are both currently available and in the pipeline. Each day started with a practical demonstration of a last mile hub/mobility island concept, where visitors to the event got to sample 'last mile green mobility' firsthand using e-scooters, e-bikes and a 'Green Bus' to get to the venue.



The first day was dedicated to transportation and mobility in a decarbonising world with speakers from industry specialists, thought leaders and staff from dlr. The second day focused on the role of technology in decarbonisation and considered real and practical energy solutions with presentations from world experts and practical demonstrations from leading companies already implementing tactile solutions and strategies to deliver a decarbonised future.

3. Sandyford Urban Framework Plan

The <u>Sandyford Urban Framework Plan</u> (SUFP) was formally adopted and included in the County Development Plan in 2011. At the time there was a concern that development in the business district was not plan-led and 'piecemeal' (i.e. individual developer preferences were mostly being accommodated). There was however also a vision to transform the former industrial estates into a modern mixed-use (retail, office, research and residential) business district. The development of Sandyford Business District was unique to Ireland but there are several examples in Europe and the United States of similar developments taking place at the same time such as the Zuidas in Amsterdam, Strijp-S (the old Philips Factories) in Eindhoven, the Poblenou in Barcelona, La Défense in Paris, Kendall Square in Boston and the central business district of Mississauga in Toronto.



The challenge was to create a spatial plan 'after the fact' (post-development) that would establish planning principles for future development when a pattern of development had already been established. The SUFP also had to forecast the population and employment growth and the 'carrying capacity' of the infrastructure for future residential, office and retail development.

Although it is fair to characterise the pre-framework development in the four business parks that form the District as 'piecemeal', the outcome was not just a gold-rush development. There were developers and council officials who saw the opportunity to build at a much higher density than was the norm outside of the Dublin city centre. The fact that it was brown-field development driven by a vision for a new urban way of living and working, contributed to a sustainable footprint ahead of its time in an Irish context, which still today is largely locked into low density urban sprawl. The effect hereof is evident from the demographic profile of the District compared to that of the County as shown later in this report.

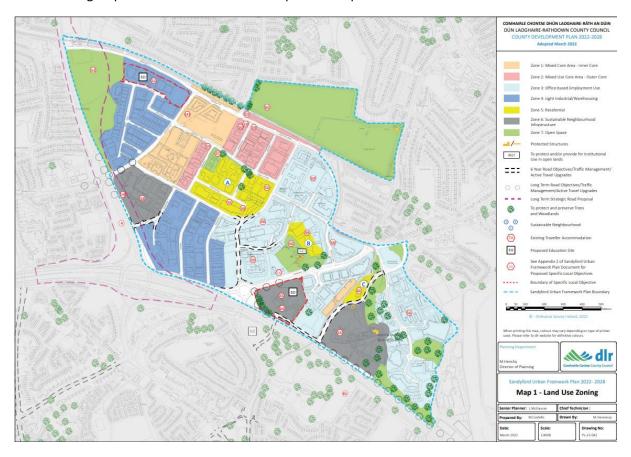
Its central location in the county and in the southern suburbs of the Dublin Metropolitan Region also means that it is not on the peripheral today and can be informed by concepts like 'the 15 minute city' and new urbanist principles.

The Framework uniquely established 12 land uses for the District namely:

- Light industry
- Warehousing
- Wholesale retail
- Retail warehousing
- Research office based employment
- Service office based employment
- Science and technology businesses
- Medical
- Education
- Retail both convenience and comparison
- Retail services
- Residential

The effect has been that all existing developments as well as all sites with planning permissions where development had not commenced at the time, were labelled with regard to the main purpose of the respective intended developments. An attempt was also made to limit new mixed use development.

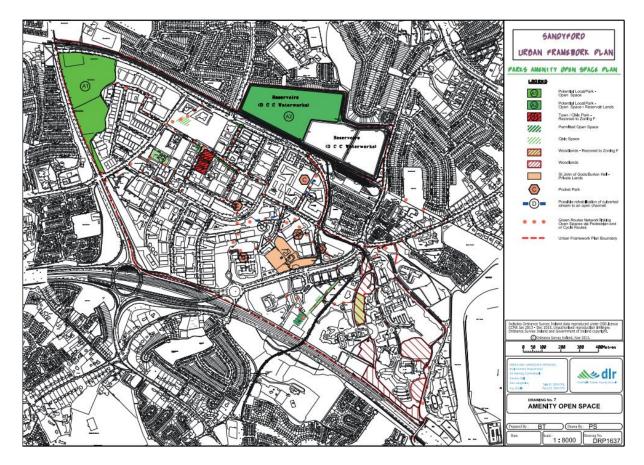
These were grouped into 7 land-use zones as per the map below:



What is apparent is that there are limited space in the built-up areas allocated as open space let alone green space. For example, in Zone 5 that is earmarked residential, the only adjoining green space is the intended Civic Park, which is yet to be established.

Of note on the map is Zone 7 Open Space. The two areas that are clearly demarcated as green and of significant size are in fact qualified for specific uses. In the case of the reservoir to the north of the District, the space is not accessible for the general public because it is a strategic water resource. In the case of the green space on the south-western edge of the District, the space largely consists of sports fields in the stewardship of the Naomh Olaf GAA Club.

As indicated in Drawing 7 of the SUFP below, an area (coloured in red) has been designated as the Civic Park on the corner of Corrig Road and Carmanhall Road. This is an area in transition where the current uses will first have to be phased out. The Sandyford Business District BID Company is working in partnership with the Council to expedite the process and especially to learn from other locations in Europe with similar development trajectories (i.e. regeneration of industrial estates into mixed-use districts) through the IB Green Project.



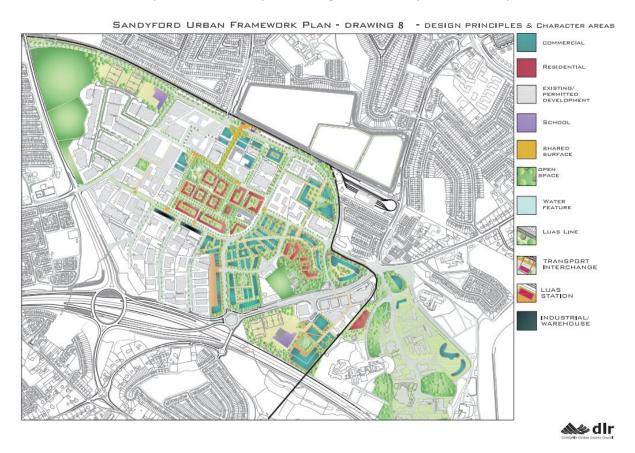
Two policy objectives are applicable in the SUFP namely:

Objective P7 states that no additional apartment developments exceeding 1,500 units (i.e. where planning permission has not yet been sought) will be permitted until the planning approval process for the Civic Park has been completed. In effect it means that many sites in Zone 5 cannot be redeveloped until this condition has been met.

Policy SUFP 8 states that it is Council policy to provide for a variety of open spaces that cater for the different requirements of the diverse users in the District.

Drawing 8 gives the impression that significant greening will be included in the future development of the District. It does not however convey the fact that the development of these open spaces (in green on the map) will depend on the investment and initiatives of private developers either through direct development projects or by Council using the proceeds of developments via development levies.

Also, many of the green spaces in the South County Business Park indicated in the map are not publicly accessible such as the spaces which form part of the grounds of Leopardstown Hospital.



The following objectives in the SUFP aim to address the improvement of the public realm including public spaces and greening in the District:

Objective PR1: It is an objective of the Council to ensure the provision of a high quality, safe, attractive and functional public realm. This shall be achieved through the appropriate and planned use of space and structure, building interface, continuous street frontages and enclosure, hard and soft surfaces, high quality materials, textures, planting, street furniture, lighting and signage and by encouraging a positive relationship between the buildings and the surrounding environment.

Objective PR2: It is an objective of the Council to ensure the provision of local identity, distinctive places and character areas through the use of co-ordinated high quality surface materials, street furniture, public art, signage, lighting and planting.

Objectives PR4 & 5: It is an objective of the Council to manage street and roadside trees in accordance with best arboricultural practice, and, to endeavour to conserve all street and roadside trees where feasible and to replace all trees removed with an appropriate species, where the removal of street and roadside trees is necessary.

Objective PR10: It is an objective of the Council to design sustainable urban drainage systems in accordance with best practice. A multidisciplinary design approach should be taken to integrate run off and water attenuation requirements into: (i) The design of a water feature in the civic park; (ii) The design of the capacity in streetscapes for structured soils for trees; (iii) Maximise the planting of large canopy trees in accordance with the Council's Tree Strategy; and (iv) Maximising the use of green roof systems within new developments.

Despite these lofty sounding objectives, it is clear that as the results stand today, the SUFP was not sufficiently implemented to support the development of open spaces and the greening of the Sandyford Business District. With the opportunity to review and plan a new SUFP, consideration should be given to specific objectives that advance public investment in greening of public spaces especially in the context of the urgency for climate action, the public good of expanding green infrastructure and the enhancement of the liveability of the District.

C. Sandyford Business District Residential Profile

By delving into the District's demographics as per Census 2022, a picture emerges of the distinctiveness of its population compared to its local administrative area of Dún Laoghaire-Rathdown County.

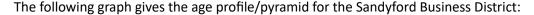
1. Total Population

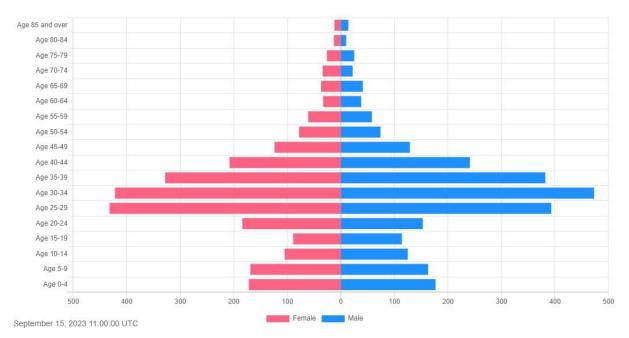
The most recent count of the residential population of Sandyford Business District as per Census 2022 is a total of 4,854 with 2,392 females and 2,462 males.

The population lives in three of the four business parks that make up the Sandyford Business District (excluding South County Business Park). The total area size for the three parks is 1.9 km². The population density is thus 2,555 persons/km² compared to 1,850 persons/km².

The Business District is unique compared to any other residential area in Ireland (outside of city centres) in as much as that all housing consists of apartments. The assumption would thus be that it is more a transient population who lives in the District. The problem with such assumptions is that it influences policymaking in particular with regard to the provision of services and facilities. For example, there are no public community facilities, public schools or libraries in the District (or adequately being provided for in the Sandyford Urban Framework Plan). Yet, according to the Census, there are 328 children under the age of 5 and 690 children of school-going age (Ages 5 to 19) living in the District. It is fair to ask what spaces are being provided for their healthy upbringing.

2. Age Profile



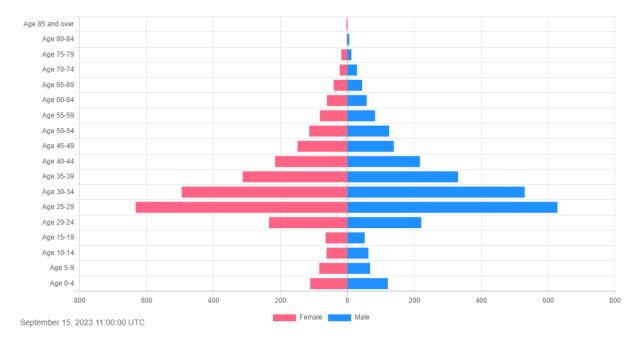


It shows that the largest cohort of the population is in the age bracket of 25 to 44 years old, namely 2,809 or 57.8% of the population.

This differs dramatically from the age profile of Dún Laoghaire-Rathdown where the proportion of the population in the age bracket of 25 to 44 years old is 27.6% (64,606 out of 233,860), as per graph below:



Sandyford Business District is often compared with the Dublin Docklands because it is also an industrial area that was redeveloped in a mixed use district in approximately the same era. It is interesting to see the similarity in the age profiles between the two districts. See the graph for the Dublin Docklands below.

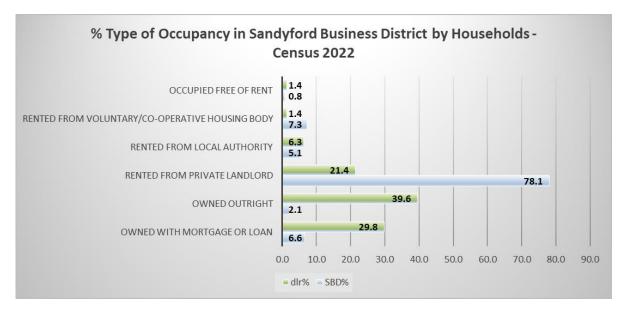


Selected age cohorts are compared in the following table:

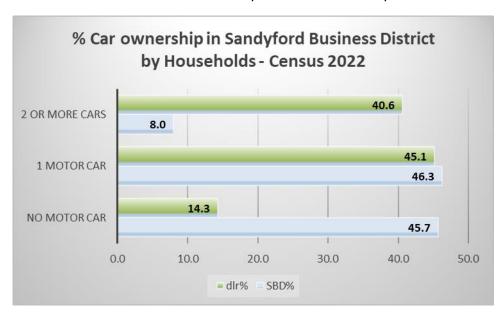
District	Total Population	Females	Males	Age < 5 years	Age 5 – 19 years	Age 25 – 44 years*	* % of Population
Sandyford BD	4,854	2,392	2,462	328	690	2,809	57.8%
Dublin Docklands	5,433	2,706	2,727	232	394	3,363	61.9%

3. Households

A striking difference with the rest of dlr County is that 3 out of every 5 households in the District rent their homes from private landlords, compared to only 1 in 5 households in dlr.

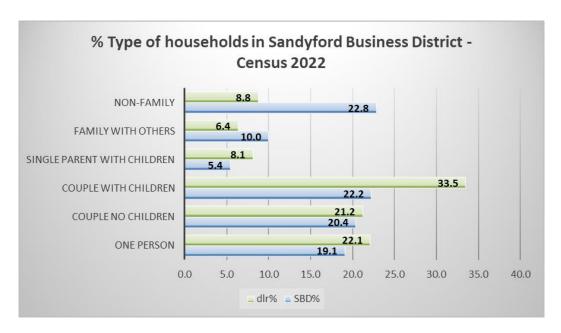


Households in the District are also nearly four times more likely than the rest of dlr to not own a car.



These statistics are indicative of households in the District that are more oriented towards sustainable living with a dependence on amenities in close proximity or reachable with quality public transport.

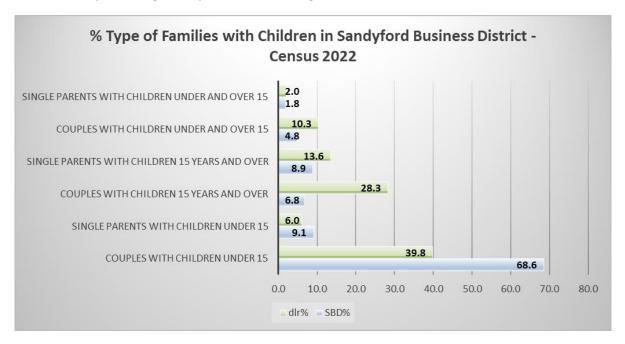
Given the type of housing infrastructure (i.e. apartments only in the District compared to the standard type of housing in dlr namely semi-detached houses), the size of households was expected to be smaller than the average for dlr with comparatively more households consisting of a single person or couples with no children. Surprisingly, this is not the case. In fact the proportion of households that are single person or couples with no children is less than the average for dlr, that is, 19.1% and 20.4% respectively in the District compared to 22.1% and 21.2% respectively in dlr.



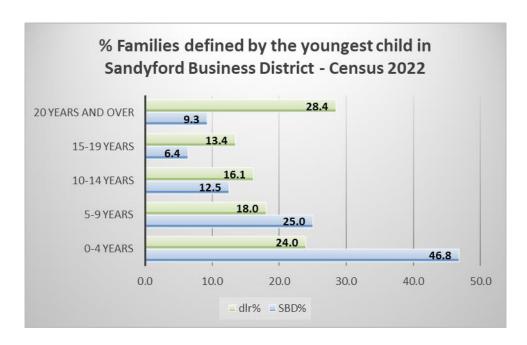
The statistic that is more significant is the larger proportion of households that are non-family, i.e. where inhabitants share an apartment but are not kin or in a relationship (i.e. a communal household). More than 1 in 5 households in Sandyford Business District are non-family, compared to less than 1 in 10 households in dlr. A total of 1,061 persons in the District live in such non-family households.

4. Families

In the Sandyford Business District, more than 3 out of 4 families with children have only children that are under 15 years of age, compared to the average for dlr of less than half of the families with children.



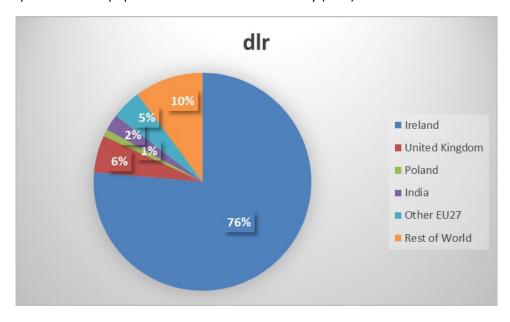
The predominance of young children is confirmed in the next graph where the youngest child in nearly 3 out of every 4 families with children in the District is younger than 10 years old. The comparative figure for dlr is less than half of the families with children.

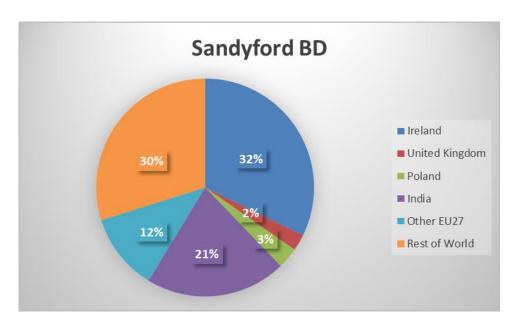


5. Diversity

The Sandyford Business District is for all intent and purposes a 'child of the Celtic Tiger'. The result was a transformation of old industrial estates into new infrastructure over the past thirty years to fit the work and lifestyles of a population geared towards the requirements of the multi-national companies that form the core of the subsequent periods of sustained economic growth.

This is especially evident in the ethnic and race profiles of the residential population of the District. For example, a minority of the District's residential population was born in Ireland (32%), compared to three quarters of the population in the rest of dlr County (76%).

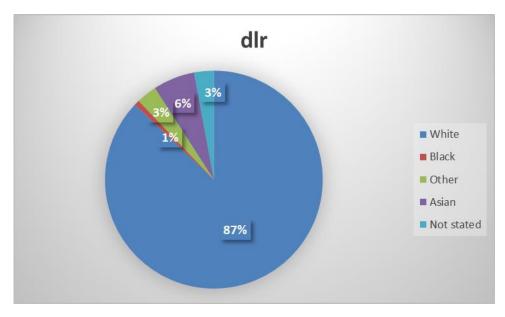


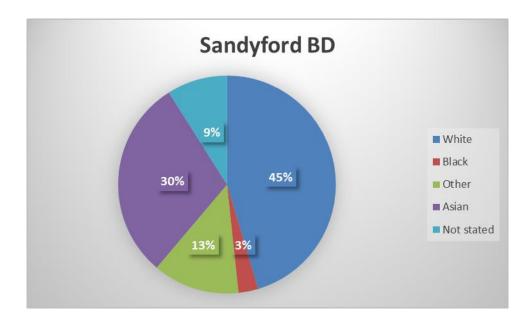


It is also evident that Sandyford Business District has been a location favoured by people who were born outside of the European Union (51% of the District's population), compared to the rest of dlr (12% of the dlr population).

Most of the non-EU population require work visas to stay in Ireland and it is no co-incidence that there is an alignment between the reliance of many multi-national companies in the Sandyford Business District on scarce talent globally and the high proportion of non-EU residents from all over the world in the District. This could also explain the large cohort of residents born in India (21%) compared to the rest of dlr (2%), many working in the ICT sector.

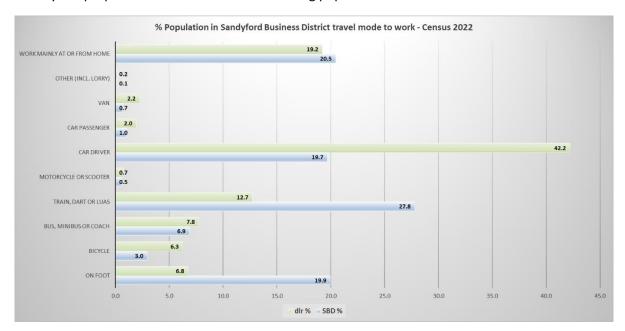
The District also have a distinctive multi-racial profile with no dominant race in stark contrast with the rest of dlr where 87% of the population classify themselves as White.





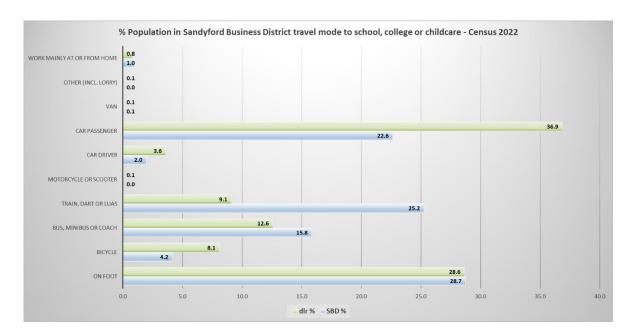
6. Mobility

The travel mode to work, school, college and childcare as measured in Census 2022 gives a good indication of the mobility choices made by the residential population in Sandyford Business District. With the travel to work mode, three choices stand out when compared to the average for dlr County. The proportion of the population in the District who drive to work is less than 1 out of 5, while in the County the proportion is closer to half the working population.



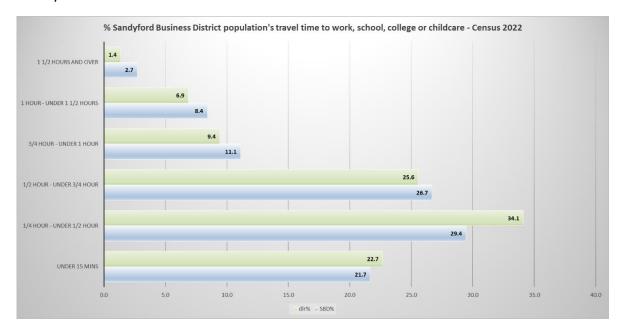
At the same time 1 out 5 of the population living in the District walk to work compared to just over 1 in 20 of the working population in dlr County, while 1 out of 4 of the population in the District use the LUAS to go to work.

There are also distinct differences in the use of travel modes to school, college and childcare between the population in the District and the rest of dlr County as shown in the next graph.



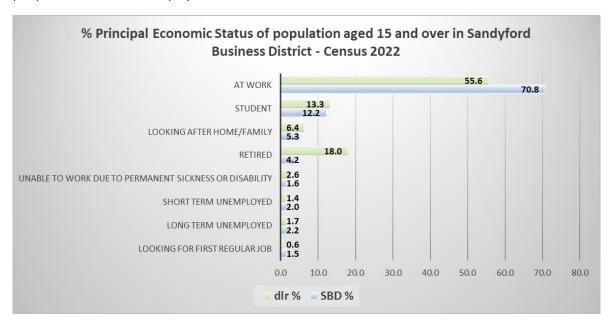
Whereas more than a third of those in the County traveling to school, college or childcare are car passengers, it is less than a quarter of those resident in the District. Moreover, a quarter of those living in the District who travel to school, college or childcare use the LUAS, compared to less than 1 in 10 in the County using the train, DART or LUAS.

There are no marked differences in travel times between those living in the District and the rest of dlr County.

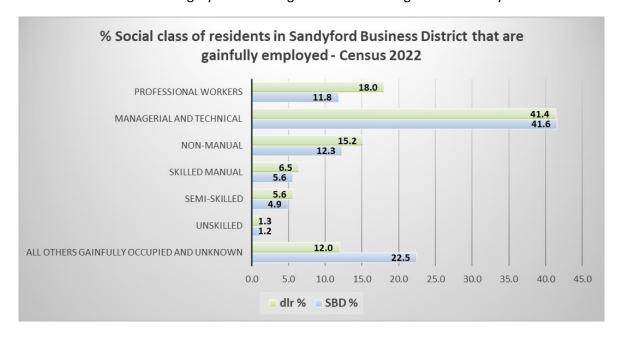


7. Economic profile

It is predictable that the economic status of a higher proportion of persons 15 years and older living in Sandyford Business District will be 'at work' (70.8%) compared to the rest of dlr (55.6%), given that the main purpose of the creation of the Sandyford Business District is a mixed use built environment where people can live, work and play.



The economic profile of residents gainfully employed is similar to that of the rest of dlr County as shown in the graph below. It has become a 'rule of thumb' to regard the category of All Others Gainfully Employed as referencing the self-employed and freelancers. Typically many people working in the ICT sector are recorded in this category. This could explain why the proportion of Sandyford Business District residents in this category are much higher than the average for dlr County.



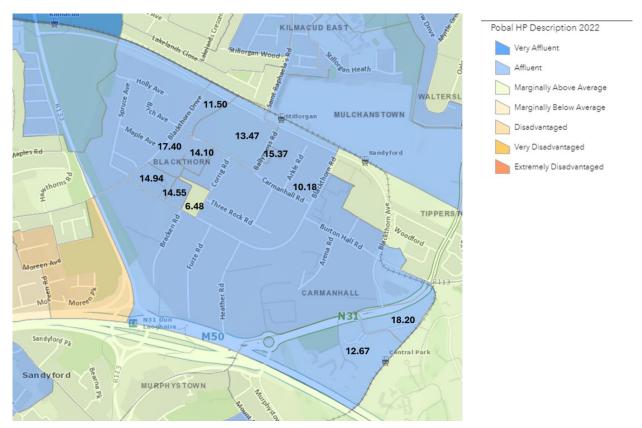
D. Affluence and Deprivation in Sandyford Business District

The <u>HP Deprivation Index</u> was developed by Trutz Haase and Jonathan Pratschke more than two decades ago with the intention to help agencies in health and social services to identify areas of deprivation using Census data.

Inevitably the Index would also show the other end of the scale, i.e. areas that are not deprived. These were labelled 'Affluent', which then in the context of the absence of any Census question on household income, became the proxy for indicating areas of affluence. A cursory browse through the Pobal HP
Maps however will show for example that parts of Foxrock are categorised as 'Marginally Above Average' which will probably produce a wry smile on many a face. This is because education levels and the age dependency ratio weighs heavily as factors of the Index and areas with older populations and lower education levels therefore measure lower than they should.

Nevertheless, the HP Index is generally accepted by the public sector in Ireland as the best indicator of areas of affluence.

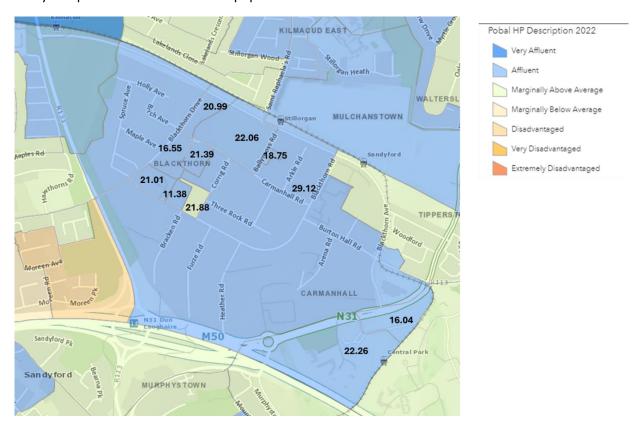
For the same reasons that some areas will measure too low (i.e. education levels and age dependency), Sandyford Business District measures high on the HP Index. The map below from the Pobal HP Maps online service shows that 10 out of 11 small areas in the District measure in the percentiles for Affluent while one small area measure in the 'Marginally Above Average' category.



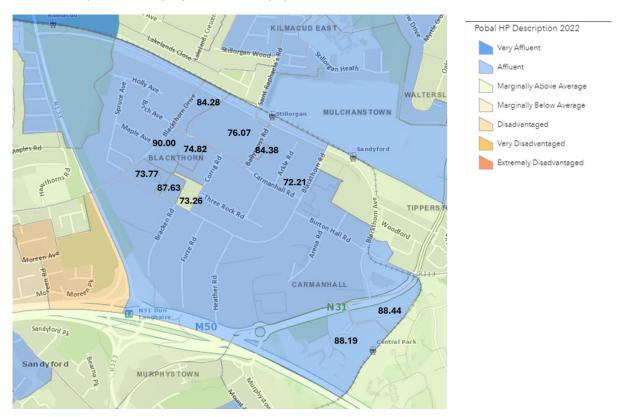
A deeper dive into the specific factors of the Index, show the following positives and negatives for the District. See Appendix C for the data tables for the respective small areas in Sandyford Business District.

The next map shows the Age Dependency Ratios in the District ranging from a high of 29.12 to a low of 11.38. Note that the lower the number the better the ratio, i.e. less dependents compared to working

population. The ratio for the whole of Dublin is 31.86. In general there are approximately 4 workers for every 1 dependent in the residential population of the District.

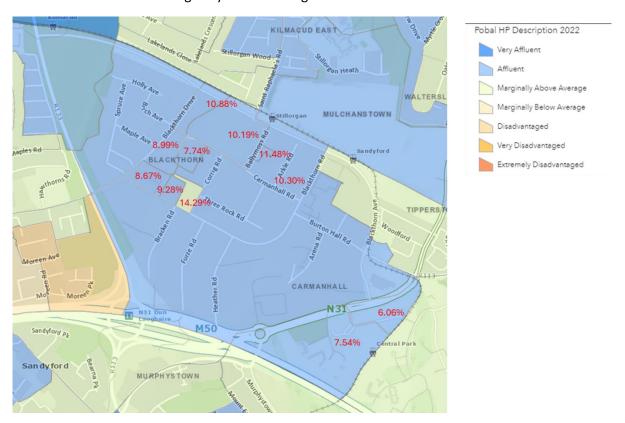


The next map shows the proportion of the population at and with third level education.

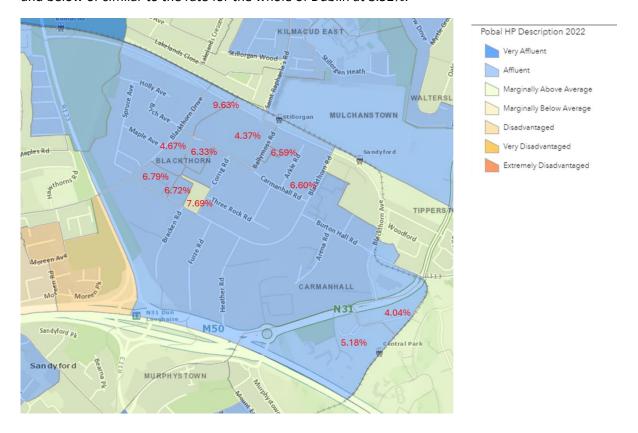


It is evident that there is a very high proportion of the population at and with third level education with the rates ranging from 72.21 to 90.00. The rate for the whole of Dublin is 50.24.

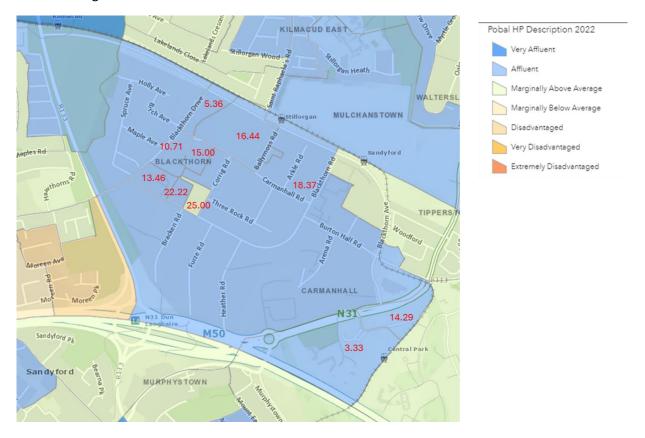
The next map shows the female unemployment rate. This is relatively higher than expected with 14.29% in the area identified as 'Marginally Above Average'. The rate for the whole of Dublin is 7.83%.



The next map shows the male unemployment rate. This is lower than the female unemployment rate and below or similar to the rate for the whole of Dublin at 8.52%.

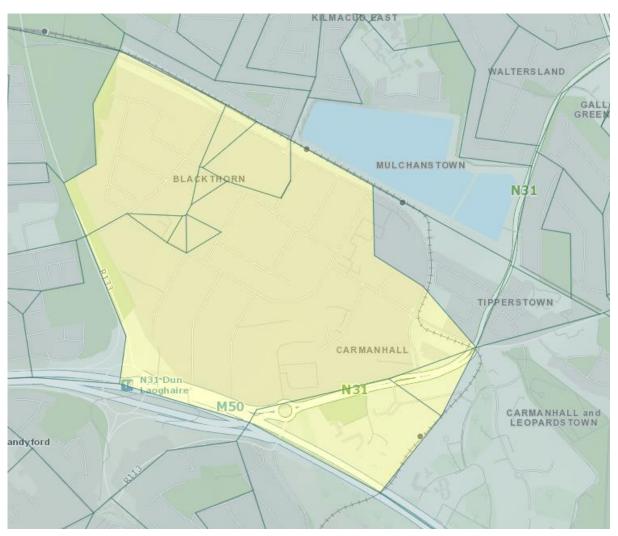


The final map shows the lone parent ratio which is the highest in the small area identified as 'Marginally Above Average' with a ratio of 25.00. The ratio for the whole of Dublin is 21.26.



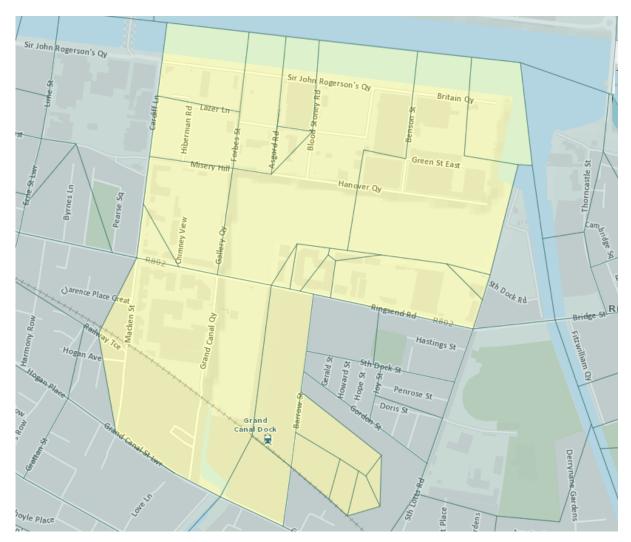
Appendix A: Small Area Codes for Sandyford Business District and Dublin Docklands

Sandyford Business District



Sandyford Business District Small Areas Codes, Central Statistics Office Ireland			
Area Name	Area Code		
A267078011/01	4c07d11e-3388-851d-e053-ca3ca8c0ca7f		
A267078011/02	4c07d11e-338a-851d-e053-ca3ca8c0ca7f		
A267078011/03	4c07d11e-3389-851d-e053-ca3ca8c0ca7f		
A267078012	4c07d11e-161a-851d-e053-ca3ca8c0ca7f		
A267078013/01	4c07d11e-16b7-851d-e053-ca3ca8c0ca7f		
A267078013/02	4c07d11e-338b-851d-e053-ca3ca8c0ca7f		
A267078013/03	4c07d11e-25a7-851d-e053-ca3ca8c0ca7f		
A267078024	4c07d11e-3b9b-851d-e053-ca3ca8c0ca7f		
A267092055/02	4c07d11e-309a-851d-e053-ca3ca8c0ca7f		
A267092055/03	4c07d11e-3485-851d-e053-ca3ca8c0ca7f		

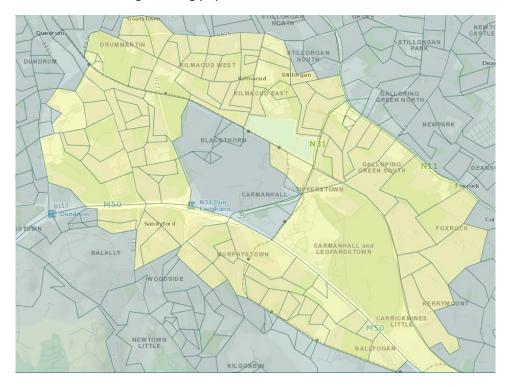
Dublin Docklands



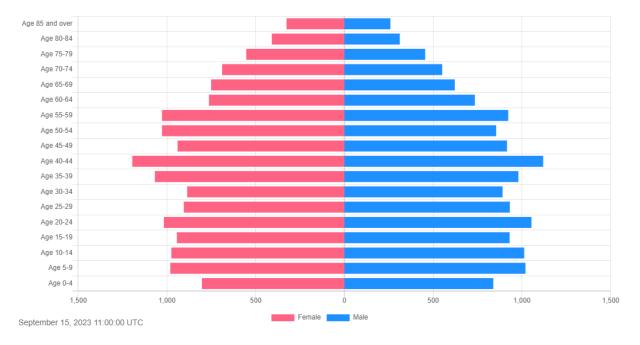
Dublin Docklands S	mall Areas Codes, Central Statistics Office of Ireland		
Area Name	Area Code	Area Name	Area Code
A268115008	4c07d11e-33ba-851d-e053-ca3ca8c0ca7f	A268143021	4c07d11e-3bdc-851d-e053-ca3ca8c0ca7f
A268115009	4c07d11e-3c30-851d-e053-ca3ca8c0ca7f	A268143022	4c07d11e-3844-851d-e053-ca3ca8c0ca7f
A268115010	4c07d11e-3c18-851d-e053-ca3ca8c0ca7f	A268143023	4c07d11e-3c2d-851d-e053-ca3ca8c0ca7f
A268115011	4c07d11e-3c19-851d-e053-ca3ca8c0ca7f	A268143024/02	e9e44060-ea62-44aa-8d4c-168dad90634b
A268115012	4c07d11e-3c2f-851d-e053-ca3ca8c0ca7f	A268143024/03	70d22844-c64d-484e-bef3-aae2af403c67
A268143013	4c07d11e-335a-851d-e053-ca3ca8c0ca7f	A268143024/04	44d7ad95-6d28-4d72-ae54-0603515b0746
A268143014	4c07d11e-2b6e-851d-e053-ca3ca8c0ca7f	A268143025	4c07d11e-2d68-851d-e053-ca3ca8c0ca7f
A268143016	4c07d11e-2b78-851d-e053-ca3ca8c0ca7f	A268143027	4c07d11e-3c3d-851d-e053-ca3ca8c0ca7f
A268143018/01	4c07d11e-3371-851d-e053-ca3ca8c0ca7f	A268143028	4c07d11e-33dd-851d-e053-ca3ca8c0ca7f
A268143018/02	4c07d11e-3845-851d-e053-ca3ca8c0ca7f	A268143029	4c07d11e-3c21-851d-e053-ca3ca8c0ca7f
A268143019	4c07d11e-3c20-851d-e053-ca3ca8c0ca7f	A268143030	4c07d11e-3c2c-851d-e053-ca3ca8c0ca7f
A268143020	4c07d11e-3370-851d-e053-ca3ca8c0ca7f	A268143031	4c07d11e-3bde-851d-e053-ca3ca8c0ca7f

Appendix B: Neighbouring Population of the Sandyford Business District - Census 2022

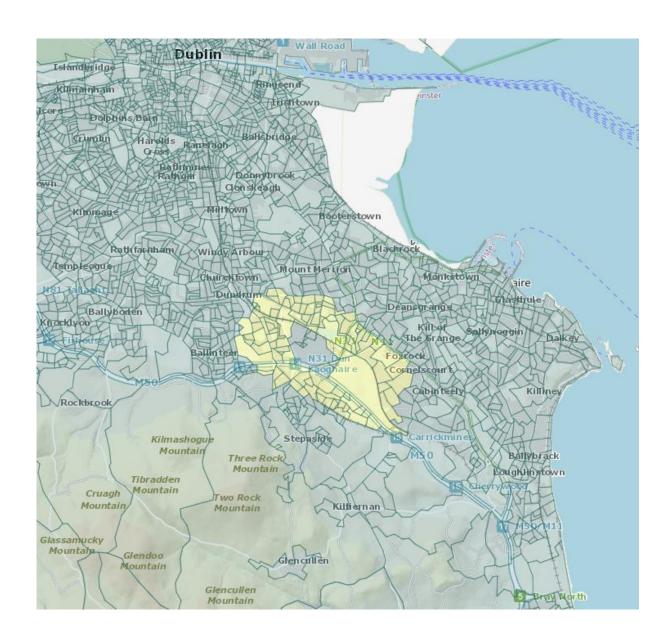
The following map shows the small areas adjacent to Sandyford Business District aggregated to give an indication of the neighbouring population.



There are approximately 30,000 people living on the doorstep of Sandyford Business District (approximately 15 minutes' walk). The following graph shows the age profile of the District's neighbours.

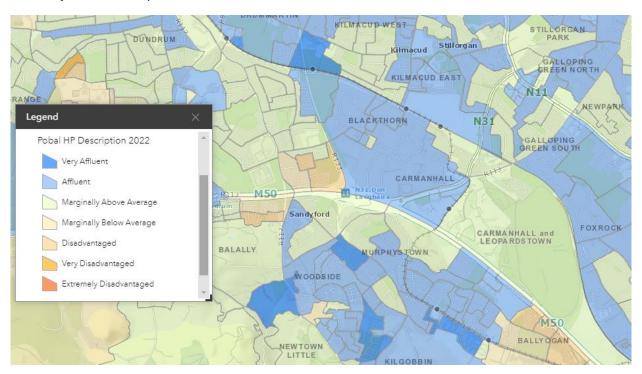


The final map gives an orientation of the 'greater Sandyford BD' in the context of dlr and the southern Dublin Metropolitan Area.



Appendix C: Small Areas Data re Sandyford Business District re HP Deprivation Index

The following map from the <u>Pobal HP Index Maps</u> shows the relative affluence/deprivation of the small areas adjacent to Sandyford Business District.



The following tables show the factors included in the HP Deprivation Index per small area in Sandyford Business District.

Small Area ID	267078011/01	Small Area ID	267078011/02
ED Name	Dundrum-balally	ED Name	Dundrum-balally
County	Dublin	County	Dublin
Pobal HP Index 2022	14.55	Pobal HP Index 2022	6.48
Pobal HP Description 2022	Affluent	Pobal HP Description 2022	Marginally Above Avera
Population 2022	325	Population 2022	160
Age Dependency Ratio 2022 %	11.38	Age Dependency Ratio 2022 %	21.88
Lone Parent Ratio 2022 %	22.22	Lone Parent Ratio 2022 %	25.00
Prop. Primary Education Only 2022 %	1.61	Prop. Primary Education Only 2022 %	6.98
Proportion at Third Level Education 2022 %	87.63	Proportion at Third Level Education 2022 %	73.26
Unemployment Rate - Male	6.72	Unemployment Rate - Male	7.69
Unemployment Rate - Female	9.28	Unemployment Rate - Female	14.29

rage

Small Area ID	267078011/03
ED Name	Dundrum-balally
County	Dublin
Pobal HP Index 2022	14.94
Pobal HP Description 2022	Affluent
Population 2022	476
Age Dependency Ratio 2022 %	21.01
Lone Parent Ratio 2022 %	13.46
Prop. Primary Education Only 2022 %	3.28
Proportion at Third Level Education 2022 %	73.77
Unemployment Rate - Male	6.79
Unemployment Rate - Female	8.67

Small Area ID	267078024
ED Name	Dundrum-balally
County	Dublin
Pobal HP Index 2022	14.10
Pobal HP Description 2022	Affluent
Population 2022	519
Age Dependency Ratio 2022 %	21.39
Lone Parent Ratio 2022 %	15.00
Prop. Primary Education Only 2022 %	1.09
Proportion at Third Level Education 2022 %	74.82
Unemployment Rate - Male	6.33
Unemployment Rate - Female	7.74

2/7070042
267078012
Dundrum-balally
Dublin
10.18
Affluent
625
29.12
18.37
4.36
72.21
6.60
10.30

Small Area ID	267078022
ED Name	Dundrum-balally
County	Dublin
Pobal HP Index 2022	15.37
Pobal HP Description 2022	Affluent
Population 2022	208
Age Dependency Ratio 2022 %	18.75
Lone Parent Ratio 2022 %	11.54
Prop. Primary Education Only 2022 %	1.56
Proportion at Third Level Education 2022 %	84.38
Unemployment Rate - Male	6.59
Unemployment Rate - Female	11.48

Small Area ID	267078013/01
ED Name	Dundrum-balally
County	Dublin
Pobal HP Index 2022	17.40
Pobal HP Description 2022	Affluent
Population 2022	586
Age Dependency Ratio 2022 %	16.55
Lone Parent Ratio 2022 %	10.71
Prop. Primary Education Only 2022 %	0.59
Proportion at Third Level Education 2022 %	90.00
Unemployment Rate - Male	4.67
Unemployment Rate - Female	8.99

Small Area ID	267078013/02
ED Name	Dundrum-balally
County	Dublin
Pobal HP Index 2022	11.50
Pobal HP Description 2022	Affluent
Population 2022	486
Age Dependency Ratio 2022 %	20.99
Lone Parent Ratio 2022 %	5.36
Prop. Primary Education Only 2022 %	0.44
Proportion at Third Level Education 2022 %	84.28
Unemployment Rate - Male	9.63
Unemployment Rate - Female	10.88

Small Area ID	267078013/03	Small Area ID	267092055/03
ED Name	Dundrum-balally	ED Name	Glencullen
County	Dublin	County	Dublin
Pobal HP Index 2022	13.47	Pobal HP Index 2022	18.20
Pobal HP Description 2022	Affluent	Pobal HP Description 2022	Affluent
Population 2022	562	Population 2022	293
Age Dependency Ratio 2022 %	22.06	Age Dependency Ratio 2022 %	16.04
Lone Parent Ratio 2022 %	16.44	Lone Parent Ratio 2022 %	14.29
Prop. Primary Education Only 2022 %	2.86	Prop. Primary Education Only 2022 %	2.04
Proportion at Third Level Education 2022 %	76.07	Proportion at Third Level Education 2022 %	88.44
Unemployment Rate - Male	4.37	Unemployment Rate - Male	4.04
Unemployment Rate - Female	10.19	Unemployment Rate - Female	6.06

Small Area ID	267092055/02
ED Name	Glencullen
County	Dublin
Pobal HP Index 2022	12.67
Pobal HP Description 2022	Affluent
Population 2022	822
Age Dependency Ratio 2022 %	22.26
Lone Parent Ratio 2022 %	3.33
Prop. Primary Education Only 2022 %	0.27
Proportion at Third Level Education 2022 %	88.19
Unemployment Rate - Male	5.18
Unemployment Rate - Female	7.54

County Name	Dublin
Pobal HP Index 2022	2.69
Pobal HP Description 2022	Marginally Above Average
Population 2016	1,347,359
Population 2022	1,458,154
Population Change %	8.22
Age Dependency Ratio 2022 %	31.86
Lone Parent Ratio 2022 %	21.26
Prop. Primary Education Only 2022 %	9.20
Proportion at Third Level Education 2022 %	50.24
Unemployment Rate - Male	8.52
Unemployment Rate - Female	7.83

The final map from the Pobal HP Index Maps shows the affluence of the southern suburbs in the Dublin Metropolitan Area and the central location of Sandyford Business District in this affluent area.

