URBAN STUDIES

# RESPUBLICA GAUTENG CO-LIVING MARKET ANALYSIS PHASE 1

Public Version

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RESPUBLICA STUDENT LIVING

AFD AGENCE FRANÇAISE DE DÉVELOPPEMENT

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## Contents

# 1. INTRODUCTION

## 1.1. Abstract

Respublica, a leading provider of purpose-built student accommodation (PBSA) in South Africa, provides approximately 10 000 beds to students throughout the country. Respublica is in the process of diversifying into the affordable residential market. The overarching plan is to provide better quality housing options close to economic opportunities with a focus on the economically active commuter market.

This research project, the first phase of a larger initiative, aims to provide a comprehensive understanding of the macro-economic environment in Gauteng. The strategic rationale is to address the pressing need for affordable housing in Gauteng, driven by the region's significant population growth, particularly in the low to middle-income market segment.

The research unpacks the market dynamics and demographics of Gauteng as a whole, so that insight can be gained into the various demographic subsets. Through this analysis, insight is provided into the market in which a co-living model can be positioned.

The concept of co-living revolves around the accommodation and lifestyle challenges of young working individuals as they navigate their lifestyle needs post studying and entering the job market in a new location. It is a transitionary solution targeting young working individuals and couples who are looking to rent, as ownership is less feasible for these individuals. Affordability and price sensitivity remain a large concern for this audience, who values convenience and flexibility.

Note: *This report is a condensed version of a comprehensive document. It is intended to provide a brief overview and may not contain all the detailed information, data, or analysis present in the full report. Only part of the market research is made public, as the research presents public interest and serves SDG 11 Sustainable Cities.*

## 1.2. Background

The Gauteng population has grown from 9.4 million in 2001 to 12.3 million in 2011 and 16.1 million people currently according to the latest Stats SA population estimates. The low to middle-income market drives a substantial portion of the growth. This has been evident in the number of informal and backyard dwellings added to the market.

The research holds significant implications for addressing the housing needs of young professionals entering the labour market and promoting inner-city regeneration. With the Gauteng region, population rapidly expanding, particularly among the low to middle-income market segment, there is a pressing need for affordable housing solutions.

By evaluating the macro-economic and urban environment of Gauteng, this research aims to identify opportunities for the co-living model, especially in areas close to economic opportunities. This is crucial for young professionals entering the labour market, as it provides them with access to quality housing options near their workplaces, sparing time and the high cost of home-work-home commute. It is estimated that transport costs to work amount to around 7% of gross income for workers in Gauteng (between R2000 – R3000 per month).

The analysis of key economic nodes and commuter markets will shed light on mobility patterns and help identify areas with high job opportunities. This information is essential for targeting housing development initiatives effectively.

The Target Market for the Co-Living Model can be defined as LSM 6+, young professional individuals, employed in the Finance & Business Services, Transport, Manufacturing, Government & Community Services, and the Wholesale & Trade economic sector.

## Housing Sector Crises in South Africa

Despite the South African government's delivery of 300 000 houses in the past five years[1], South Africa continues to face a massive housing backlog, with over 2.4 million households registered on the National Housing Needs Register in 2023.[2]

The high rate of urbanization is putting pressure on basic services and leading to an increase in informal settlements. Given land constraints, densification—via inner-city rentals, higher-density ownership models, and informal small-scale rentals—is becoming a focal point.[3]

High unemployment, a weak economy, and a rising cost of living have also heightened the demand for affordable housing. Almost half of the housing backlog is concentrated in Gauteng, the country's smallest province in size but the largest in population numbers and the economic centre.

Despite substantial investment in housing delivery, the public sector has struggled to meet demand, necessitating increased involvement from the private sector to provide more affordable housing options for both ownership and rental.

South Africa’s severe housing crisis can be partly attributed to rapid urbanization. In 2022, more than 65% of the country’s population resided in urban areas. The population of Johannesburg, South Africa’s most densely populated city, has surged by nearly 30% since 2011.[4]

In August 2023, a devastating fire in a dilapidated apartment building in Johannesburg took the lives of 77 people. This fire, one of the deadliest in South Africa’s history, served as a stark reminder of the substandard living conditions endured by the city’s most vulnerable residents, highlighting the urban housing crisis facing the country.

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[1] Parliamentary Monitoring Group (2022). Department of Human Settlements 2022/23 Annual Performance Plan; with Minister. https://pmg.org.za/committee-meeting/34779/

[2] Parliamentary Monitoring Group (2023). Question NW535 to the Minister of Human Settlements. 20 March 2023

[3] Habitat for Humanity (undated). Country profile: South Africa.

[4] South Africa’s Deadly Housing Crisis, Project Syndicate, 2023

In response to the fire at 80 Albert Street, officials have downplayed Johannesburg's broader housing crisis. Instead of addressing underlying issues such as poverty and regulatory negligence, they attempted to shift the blame to "illegal immigrants" and anti-eviction NGOs (whose absence would exacerbate the crisis). This response illustrates the longstanding failure of municipal authorities to protect the city's poorest and most vulnerable residents, making tragedies all but inevitable.

It is against this backdrop that research in affordable housing is necessary in Gauteng, which is the economic powerhouse of South Africa and attracts young professionals seeking employment opportunities.

Affordable housing options for these young professionals are limited which leads to situations like the fire at 80 Albert Street. Affordable housing can take on many forms, while social housing comes to mind at first, the set criteria for a person to qualify for this type of housing automatically disqualifies a single person.

This research is focused on providing private sector housing in the form of Co-Living residential developments near economic hubs.

*The market research will assist in understanding the macro urban environment in Gauteng, and the broad mobility patterns of the target market. It will culminate with a list of nodes to be prioritised for the Respublica Affordable Co-Living Development Model.*

# 2. RESEARCH OBJECTIVES

A key deliverable of Phase 1 will be to pave the way forward for the detailed nodal and competitor analysis for the identified nodes in Phase 2.

The main objectives of Phase 1 will be the following:

- To evaluate the Gauteng macro-economic and urban environment in terms of Gross Value Added per municipality, economic composition and where employment opportunities are. This will assist in understanding where the Co-Living model for young professionals can be rolled out.
- To analyse the dynamic nature and growth prospects of Gauteng, is to understand the future growth of the province and if there will still be demand for affordable housing in the future.
- Conduct a market profile analysis with a specific analysis of the affordable housing market.
- Geo-spatial analysis of key economic nodes including the number of job opportunities per area, this analysis assists in identifying the top nodes as the more workers in an economic node have a direct correlation with the demand for housing and more specifically affordable housing.
- Workforce analysis including sectoral contribution, acts as an affordability indicator as certain economic sectors have higher income levels than others.

- Mobility and commuter market analysis and the linkages with key economic nodes in Gauteng. Understanding where people live and where they work assists in understanding if people would like to move closer to their work as the commute daily consumes a lot of their time.
- Identifying and rating the top economic nodes to be considered for detailed research analysis for which the Co-Living model might be best suitable. This is done with a combination of the economic, employment, mobility, and Market Attractiveness Scores.

# 3. RESEARCH METHODOLOGY

This is a desktop research study, and the following existing sources of information were used:

- Stats SA;
- Urban Studies' databank 2005-2023;
- Google Earth Pro;
- MapInfo Pro 19.0;
- QGIS;
- TPN;
- Urban Studies has conducted several market studies in Gauteng over the past 30 years.

# 4. GAUTENG MACRO-ECONOMIC ENVIRONMENT

This chapter provides an overview of the Gauteng macro-economic environment by examining the following indicators:

- Gross Value Added,
- Sectoral composition
- Total employment per broad economic sector.

By delving into these key factors, we can gain valuable insights into the region's economic performance, sectoral dynamics, and employment patterns.

## 4.1. Gross Value Added

Gross Value Added (GVA) stands as a fundamental measure of economic activity within a specific region. It quantifies the value generated by all economic sectors in Gauteng and offers insights into their relative contributions to the overall economy. The table below illustrates the Gross Value Added of Gauteng and South Africa.

Table 4.1: Gross Value Added (R millions at 2015 basic prices)

| Region | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| South Africa | R4 121 227 | R4 124 451 | R3 879 355 | R4 063 690 | R 4 140 900 |
| Gauteng | R1 440 879 | R1 448 098 | R1 365 970 | R1 433 372 | - |

Source: Quantec, Statssa, 2023

The table below illustrates the GVA annual growth rate for Gauteng and South Africa.

Table 4.2: Gross Value Added (Growth)

| Region | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| South Africa | 1,50% | 0,10% | -5,90% | 4,80% | 1,90% |
| Gauteng | 1,80% | 0,50% | -5,70% | 4,90% | - |

Source: Quantec, StatsSA, 2023

## 4.2. Sectoral Composition

The economic sectoral composition for Gauteng as well as the metropolitan districts are presented in the table below.

Table 4.3: Sectoral Composition

| Industry Distribution (%) | Gauteng | City of Tshwane | City of Johannesburg | City of Ekurhuleni | West Rand | Sedibeng |
|---|---|---|---|---|---|---|
| Agriculture | 0,5% | 0,7% | 0,2% | 0,4% | 1,7% | 1,3% |
| Mining | 3,0% | 2,2% | 2,0% | 2,1% | 28,6% | 1,4% |
| Manufacturing | 14,9% | 11,5% | 14,0% | 20,8% | 13,6% | 23,4% |
| Electricity | 3,4% | 1,9% | 3,0% | 3,7% | 4,4% | 6,4% |
| Construction | 4,0% | 2,5% | 4,0% | 4,3% | 3,1% | 3,4% |
| Trade | 13,8% | 11,3% | 14,8% | 13,8% | 11,4% | 11,4% |
| Transport | 10,2% | 8,8% | 9,0% | 11,9% | 7,0% | 6,8% |
| Finance | 23,8% | 25,8% | 28,0% | 20,3% | 12,8% | 21,2% |
| General Gov. & Community | 26,6% | 35,2% | 25,0% | 22,7% | 17,4% | 24,7% |

Source: IHS Markit Regional eXplorer version 2320

In Gauteng the largest employment sector is the Community services (26.6%), followed by Finance (23.8%), and the Manufacturing sector (14.9%).

Though the three metropolitans follow a similar distribution pattern, the following comments:

- Sedibeng and Ekurhuleni comprise manufacturing the highest share.
- In Tshwane is the General Government and Community the largest sector of employment.
- In Johannesburg the largest employment sector is the Finance sector, which is expected.

## 4.3. Employment in Gauteng

The table below presents the number of workers in each broad economic sector for Gauteng and the various municipalities.

Table 4.2: Total Employment per Broad Economic Sector 2021

| Sector | Gauteng | City of Tshwane | City of Johannesburg | City of Ekurhuleni | West Rand | Sedibeng |
|---|---|---|---|---|---|---|
| Agriculture | 37 140 | 10 800 | 12 500 | 8 920 | 3 280 | 1 640 |
| Mining | 59 060 | 34 800 | 10 700 | 6 060 | 2 480 | 5 020 |
| Manufacturing | 494 700 | 101 000 | 208 000 | 132 000 | 27 200 | 26 500 |
| Electricity | 24 380 | 5 360 | 10 800 | 6 100 | 1 170 | 950 |
| Construction | 294 960 | 69 800 | 128 000 | 72 400 | 14 800 | 9 960 |
| Trade | 1 025 500 | 225 000 | 450 000 | 262 000 | 53 800 | 34 700 |
| Transport | 300 650 | 69 100 | 126 000 | 82 500 | 13 700 | 9 350 |
| Finance | 1 158 900 | 260 000 | 531 000 | 295 000 | 44 900 | 28 000 |
| Community | 902 200 | 270 000 | 341 000 | 221 000 | 42 900 | 27 300 |
| Households | 368 600 | 76 600 | 191 000 | 75 800 | 12 700 | 12 500 |
| Total | 4 666 090 | 1 122 460 | 2 009 000 | 1 161 780 | 216 930 | 155 920 |

Source: IHS Markit Regional eXplorer version 2320

# 5. POPULATION DYNAMICS

## 5.1. Population and Households

Table 5.1 indicates the total number of people and households in Gauteng and all the metropolitans and districts. Gauteng is estimated to have 15.4 million people in 2023.

Table 5.1: Population & Household Numbers

| | Region | Census 2011 | Census 2022 | 2023 | 2028 (projected) | Growth Rate |
|---|---|---|---|---|---|---|
| Population | Gauteng | 12 272 263 | 15 099 422 | 15 401 410 | 17 004 402 | 2,0% |
| | City of Tshwane | 2 921 488 | 4 040 315 | 4 165 565 | 4 852 519 | 3,1% |
| | City of Johannesburg | 4 434 631 | 4 803 262 | 4 841 688 | 5 038 479 | 0,8% |
| | City of Ekurhuleni | 3 178 470 | 4 066 691 | 4 164 292 | 4 688 576 | 2,4% |
| | West Rand | 821 191 | 998 466 | 1 017 437 | 1 117 837 | 1,9% |
| | Sedibeng | 916 484 | 1 190 688 | 1 220 455 | 1 380 833 | 2,5% |
| | | | | | | |
| Household | Gauteng | 3 908 826 | 5 318 665 | 5 467 588 | 6 277 133 | 2,8% |
| | City of Tshwane | 911 498 | 1 322 252 | 1 363 242 | 1 588 058 | 3,1% |
| | City of Johannesburg | 1 434 715 | 1 841 917 | 1 889 807 | 2 148 593 | 2,6% |
| | City of Ekurhuleni | 1 015 398 | 1 421 003 | 1 462 212 | 1 686 892 | 2,9% |
| | West Rand | 267 460 | 356 530 | 366 513 | 420 780 | 2,8% |
| | Sedibeng | 279 756 | 376 971 | 389 034 | 455 393 | 3,2% |

Source: Stats SA, 2023

The population and household numbers in Gauteng illustrate where the greatest number of people are located as well as the future growth of each region. Notable the greatest number of people are located in Johannesburg, followed by Ekurhuleni and then Tshwane. However, with a higher future growth rate, it is expected that Tshwane's population will overtake Ekurhuleni's within the next 10 years.

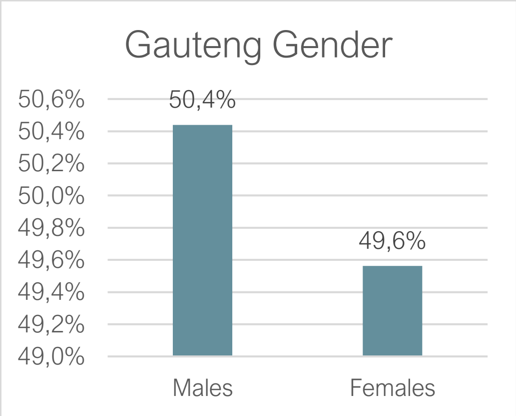
The average household size in Gauteng, the metropolitans and districts have a similar average household size.

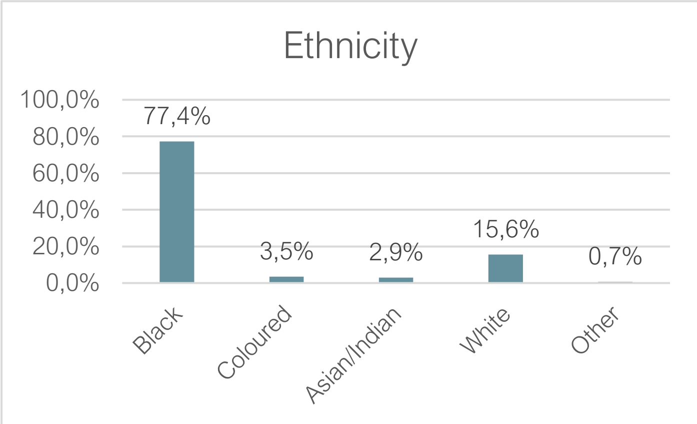
Table 5.2: Household Size

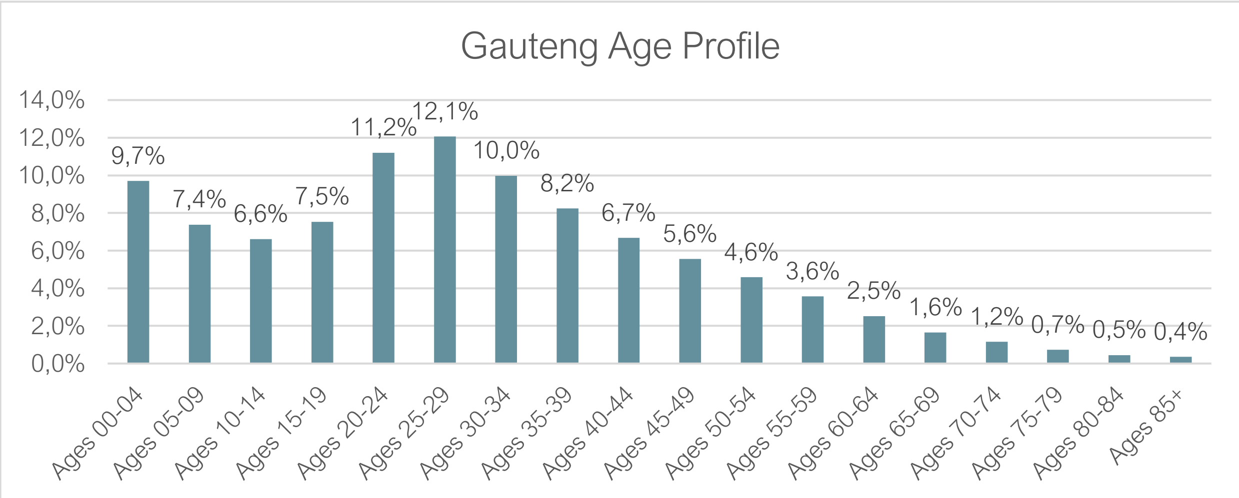
| | Household Size |
|---|---|
| Gauteng | 2,8 |
| City of Tshwane | 3,1 |
| City of Johannesburg | 2,6 |
| City of Ekurhuleni | 2,9 |
| West Rand | 2,8 |
| Sedibeng | 3,2 |

Source: Urban Studies Calculation, Statssa, 2023

## 5.2. Gauteng Demographic Dynamics




## 5.3. Migration Patterns

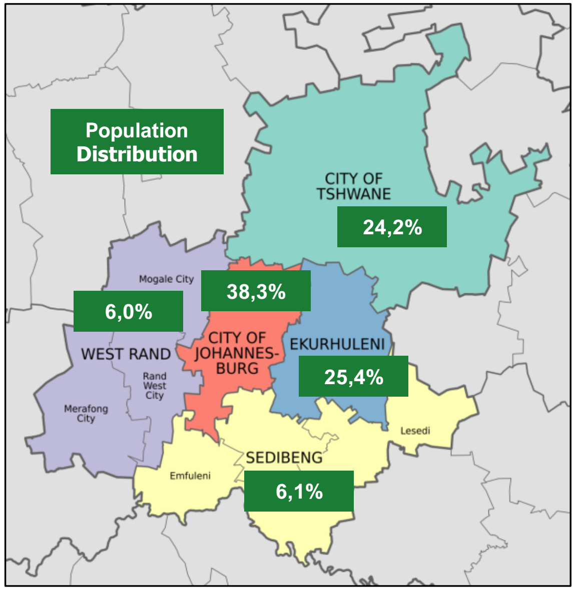
Gauteng has been a net gainer from migration for the last 15 years. The table below illustrates the number of people moving to and from Gauteng as well as the net gain.

Table 5.3: Gauteng Migration (2006 – 2022)

| Migration | To Gauteng | From Gauteng | Net Migration |
|---|---|---|---|
| Eastern Cape | 436 001 | 138 468 | 297 533 |
| Free State | 243 832 | 107 495 | 136 337 |
| Gauteng | - | - | - |
| KwaZulu-Natal | 652 374 | 186 631 | 465 743 |
| Limpopo | 1 011 117 | 259 297 | 751 820 |
| Mpumalanga | 394 593 | 219 557 | 175 036 |
| Northern Cape | 48 961 | 33 543 | 15 418 |
| North West | 312 219 | 295 139 | 17 080 |
| Western Cape | 178 450 | 260 506 | -82 056 |
| Total | 3 277 547 | 1 500 636 | 1 776 911 |

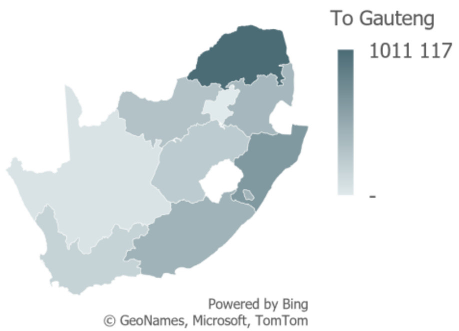
Source: Statssa, 2022

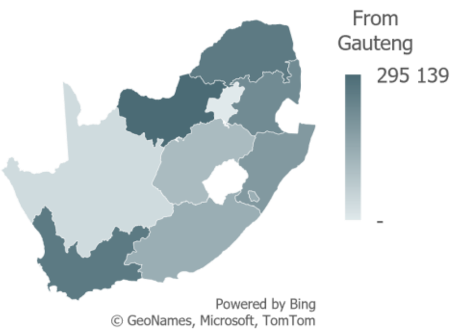
| Region | Population | Households | Growth |
|---|---|---|---|
| Gauteng | 15 099 422 | 5 318 665 | 2,0% |
| City of Tshwane | 4 040 315 | 1 322 252 | 3,1% |
| City of Johannesburg | 4 803 262 | 1 841 917 | 0,8% |
| City of Ekurhuleni | 4 066 691 | 1 421 003 | 2,4% |
| West Rand | 998 466 | 356 530 | 1,9% |
| Sedibeng | 1 190 688 | 376 971 | 2,5% |

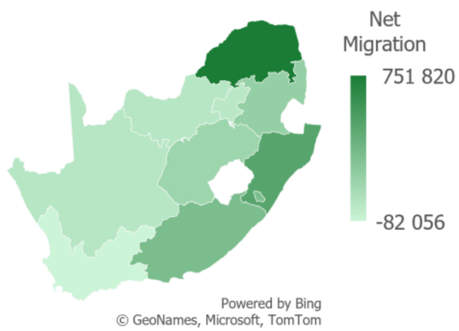



| Migration | To Gauteng | From Gauteng | Net Migration |
|---|---|---|---|
| Gauteng | 3 277 547 | 1 500 636 | 1 776 911 |

## Migration between 2009 - 2022



# 6. TARGET MARKET PROFILE

The target market profile analyses the specific target market for the co-living model proposed by Respublica. The section assesses where the target market is possibly located.

The Target Market for the Co-Living Model can be defined as LSM 6 +, young professional individuals, employed in the Finance & Business Services, Transport, Manufacturing, Government & Community Services, and the Wholesale & Trade economic sector.

### Table 6.1: LSM Correlation with Income and Rental Achievable

| LSM | Household Income (Gross) | Residential Affordability | Rentals Achievable |
|---|---|---|---|
| 1-4 | R 3 500 | R 1 000 | R750-R1100 |
| 5 | R 5 500 | R 1 650 | R1100-R1750 |
| 6 | R 10 000 | R 3 000 | R2000-R3000 |
| 7 | R 15 000 | R 4 500 | R3000-R4500 |
| 8 | R 25 000 | R 7 500 | R4500-R7000 |
| 9 | R 30 000 | R 9 000 | R7000-R9000 |
| Low 10 | R 45 000 | R 13 500 | R9000-R12000 |
| Mid 10 | R 60 000 | R 18 000 | R12000-R17500 |
| High 10 | R 75 000 | R 22 500 | >R17500 |

### Table 6.2: LSM Correlation with Employment Sector and Skill Level

<table>
<tr><th>LSM</th><th>Employment Sector</th><th>Skill Level</th></tr>
<tr><td>1-4</td><td>Agriculture, Mining and quarrying, Manufacturing</td><td>Low – Semi-Skilled</td></tr>
<tr><td>5</td><td>Agriculture, Mining, Manufacturing, Construction, Transport, Wholesale and retail trade, catering, and accommodation</td><td>Semi-Skilled</td></tr>
<tr><td>6</td><td>Mining, Manufacturing, Construction, Electricity, gas and water, and Transport</td><td rowspan="2">Semi-Skilled – Highly Skilled</td></tr>
<tr><td>7</td><td>Manufacturing, Trade, Construction, Electricity, Transport, Finance, Community Services</td></tr>
<tr><td>8</td><td rowspan="5">Finance, insurance, real estate, and business services<br>Community & General Government</td><td rowspan="5">Highly Skilled</td></tr>
<tr><td>9</td></tr>
<tr><td>Low 10</td></tr>
<tr><td>Mid 10</td></tr>
<tr><td>High 10</td></tr>
</table>

The methodology utilised is defined on the set of criteria and the table below captures the reasoning for including each parameter.

| Parameter | Defining |
|---|---|
| **Population Densities** | Identifying areas which have a higher population density increases the economies of scale, social interaction and community building, and better access to amenities and facilities. |
| **Dominant LSM Profile** | The Dominant LSM Profile illustrates where households are predominated and fall within the target market LSM profile of 6+ while keeping the rental affordability and employment sector in mind. |
| **Household Size** | Understanding where household sizes are normally smaller identifies areas where tenants are used to small households, individuals value privacy, less overcrowding in one residential unit, and the nature of Co-Living necessitates small household sizes. |
| **Sectional Title 50%** | While sectional title units normally refer to the ownership of units and higher densities. Sectional title units usually allude to being rented out by the owner. |
| **Rental 50%** | Considering the nature of the Co-Living model, areas with a high rental percentage would possibly be the ideal location where the target market might reside. |

The target market is defined based on the following set of criteria:

- Population Densities (30 – 100 people per hectare)
- Dominant LSM Profile (LSM 6+)
- Household Size (< 2.8)
- Sectional Title 50% > of total housing stock
- Rental 50% > of total tenure status

The following set of maps illustrates the location of the target market:

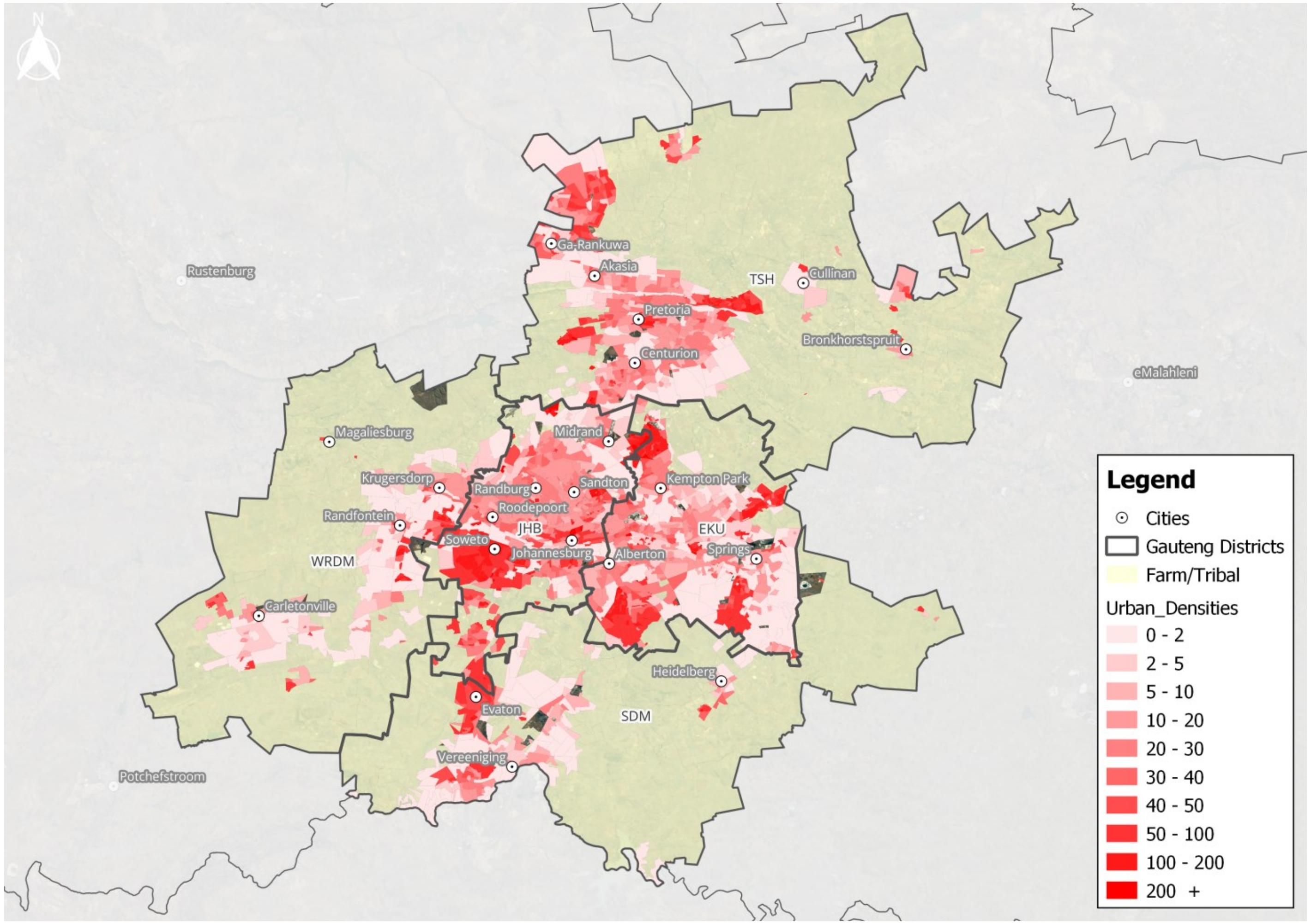
- Population Densities
- Dominant LSM Profile
- Household Size
- Housing Stock
- Tenure Status
- Parameter Density Map

The following maps are in the **Annexure Report**:

- Population Densities (30 – 100 people per hectare)

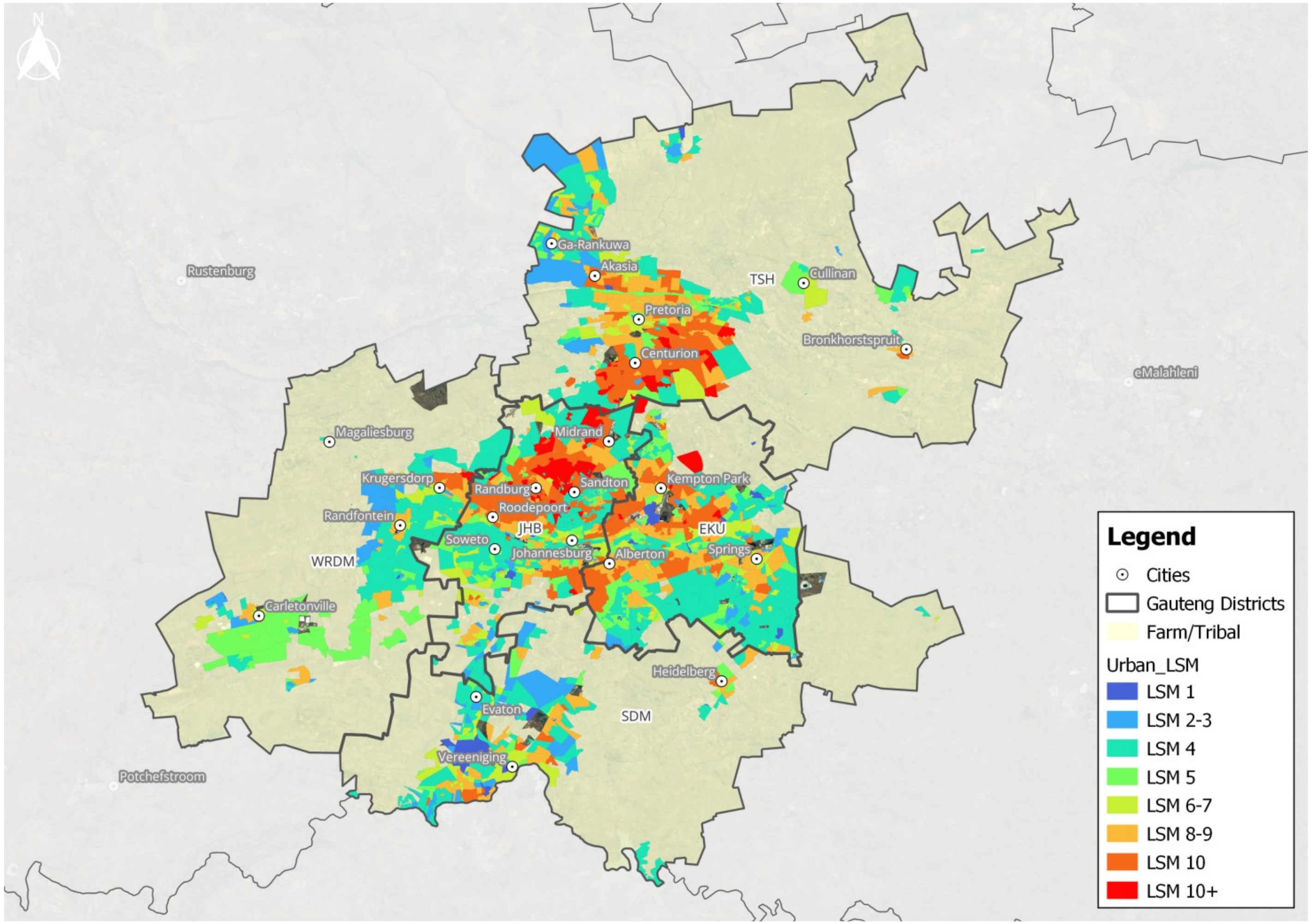
- Dominant LSM Profile (LSM 6+)
- Household Size (< 2.8)
- Sectional Title 50% > of total housing stock
- Rental 50% > of total tenure status

GAUTENG – Population Density – per Ha




Map Produced by Urban Studies, 2023
Software: QGIS

# GAUTENG – Dominant LSM Profile




Map Produced by Urban Studies, 2023
Software: QGIS

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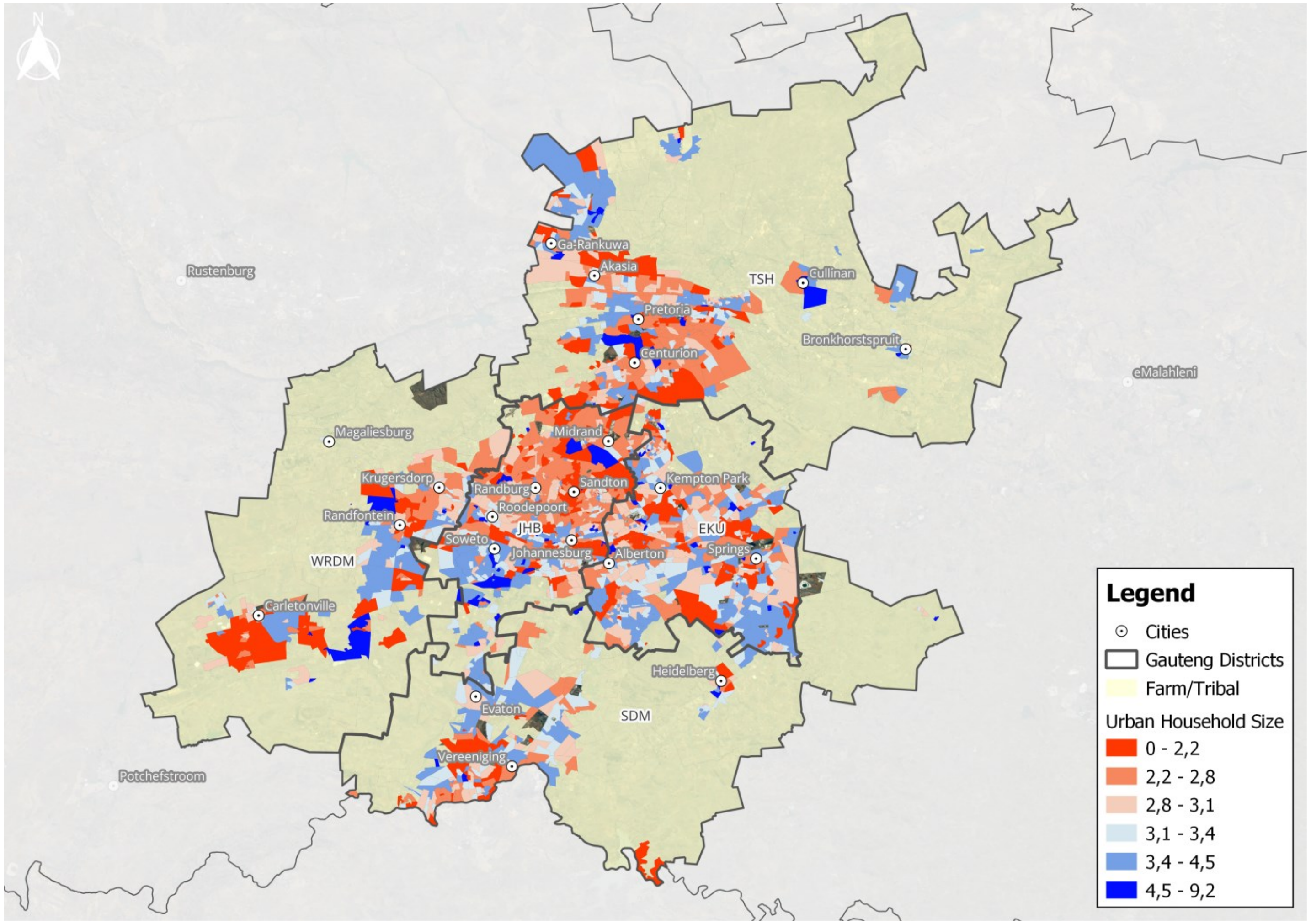
GAUTENG – Average Household Size




Map Produced by Urban Studies, 2023
Software: QGIS

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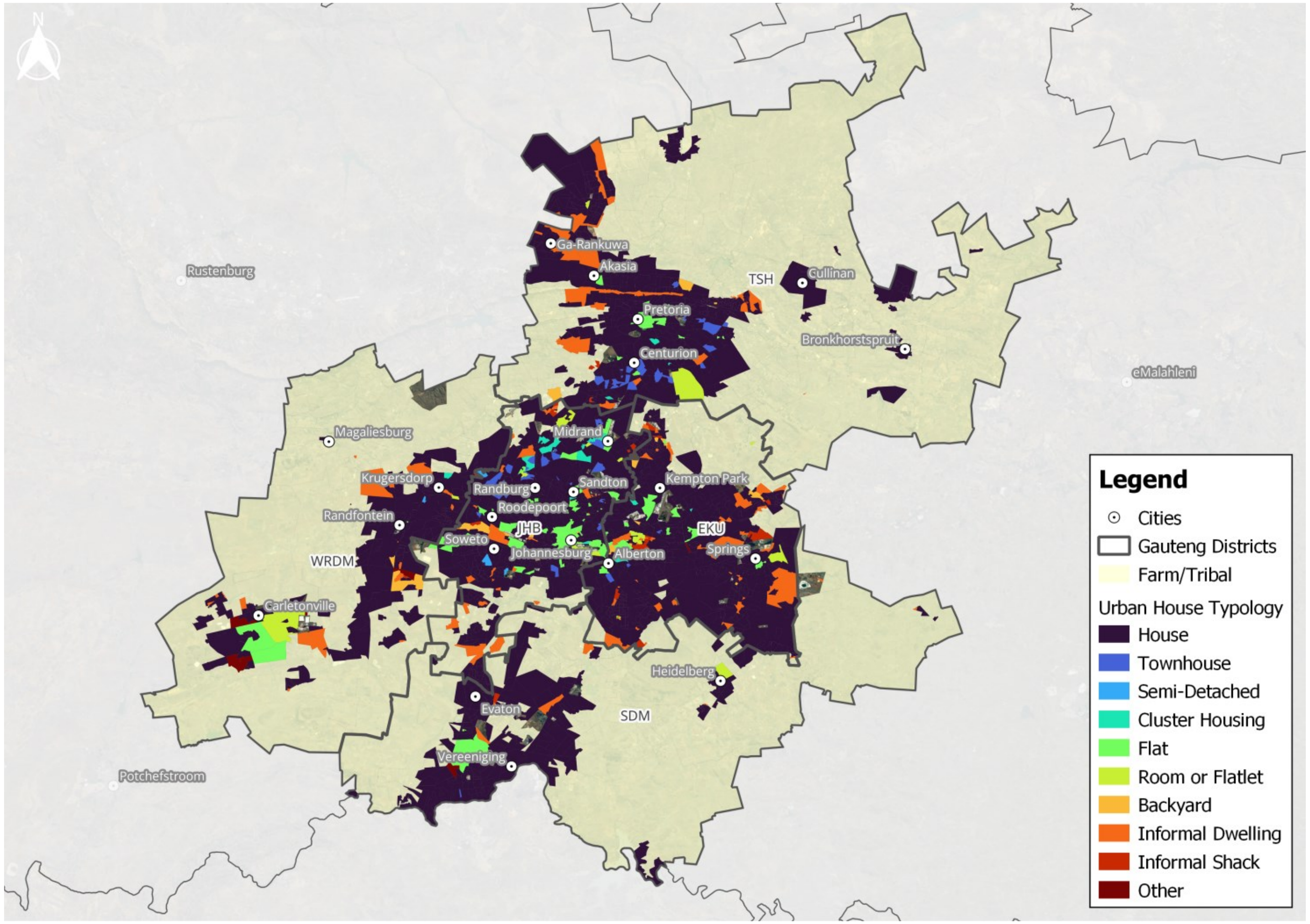
## GAUTENG – Dominant Housing Typology




Map Produced by Urban Studies, 2023
Software: QGIS

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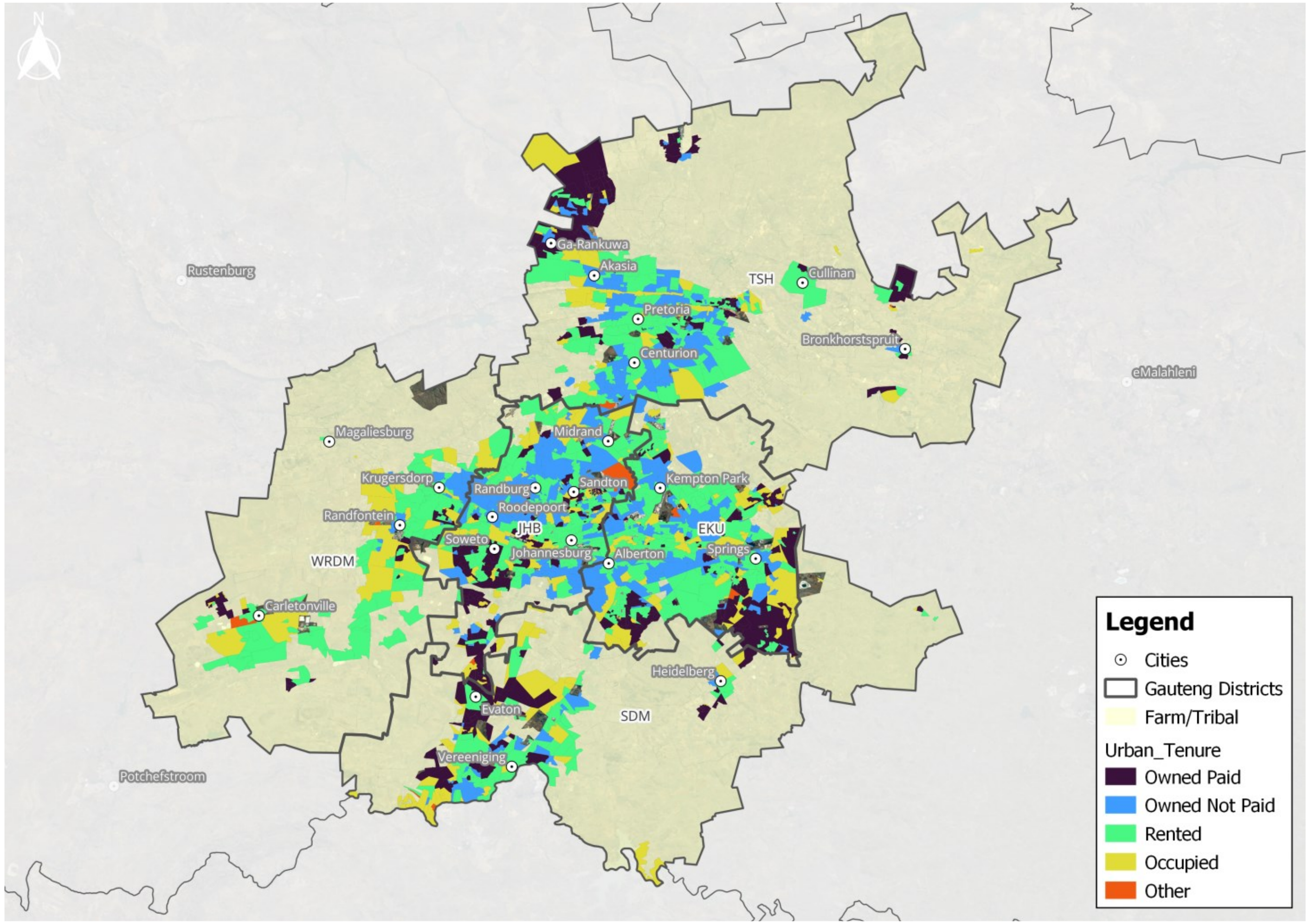
GAUTENG – Tenure Status




Map Produced by Urban Studies, 2023
Software: QGIS

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# 7. GEOSPATIAL WORKFORCE

The geospatial workforce chapter focuses on the location of the workforce. The Gross Value Added (GVA) on a Mesozone is utilised to identify the areas where GVA is produced in Gauteng. While employment per sector is utilised for where the workforce stays, this identifies possible mobility patterns. The GVA and employment data is sectorised with a specific focus on Finance and Business, General Government and Community, Manufacturing, Transport, and Retail.

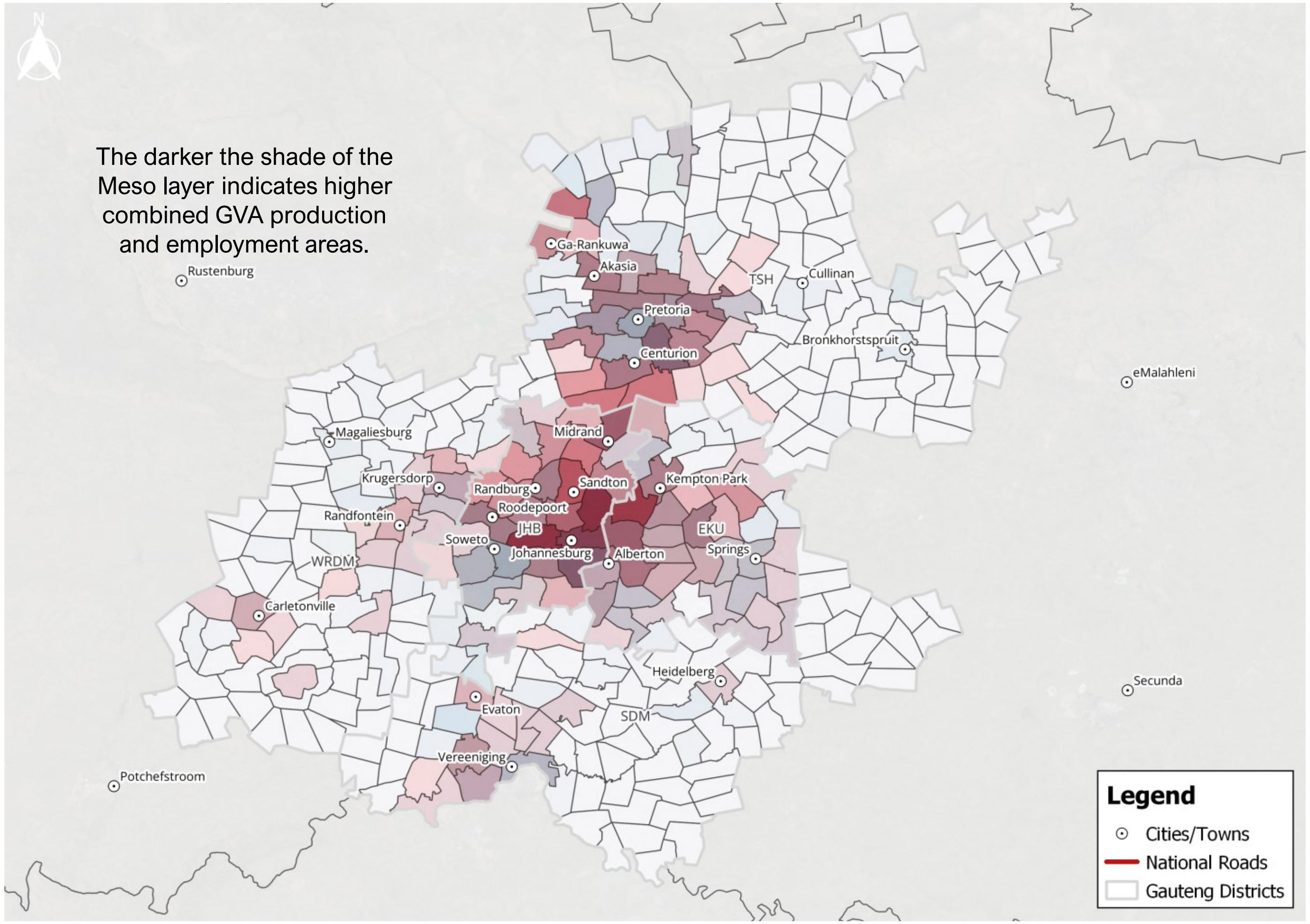
The following set of maps identifies areas based on GVA and Employment.

- GVA & Employment Areas

The following maps are in the **Annexure Report**:

- GVA Finance and Business
- GVA General Government and Community
- GVA Manufacturing
- GVA Transport
- GVA Retail

## GVA PRODUCTION & EMPLOYMENT AREAS – Heatmap




Map Produced by Urban Studies, 2023
Software: QGIS

# 8. MOBILITY IN GAUTENG

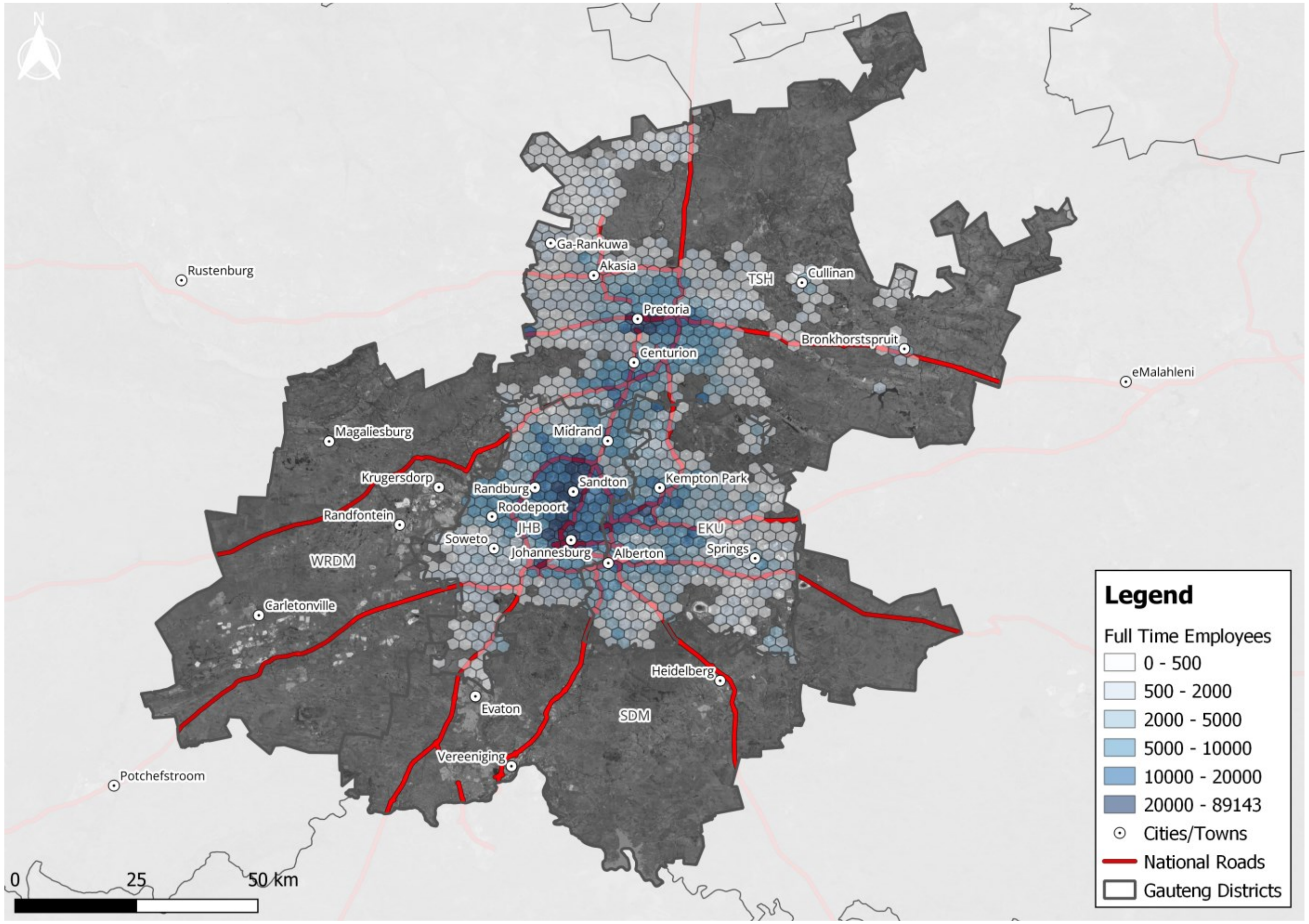
## 8.1. Mobility in Gauteng

The movement of people in Gauteng is highly based on the home-to-work and work-to-home daily pattern. What is clear is that the nodes where employment is, are not necessarily where people stay. This creates a large demand for private and public transport which is dominated by the private vehicle and the utilisation of minibus taxis.

Tens of thousands of vehicles utilise national and provincial roads daily, to travel to work from their home locations. It is seen that the majority of people travel a significant distance to reach their work location. This movement supports the idea that people need to stay closer to the work environment.

## 8.2. Full Time Employment

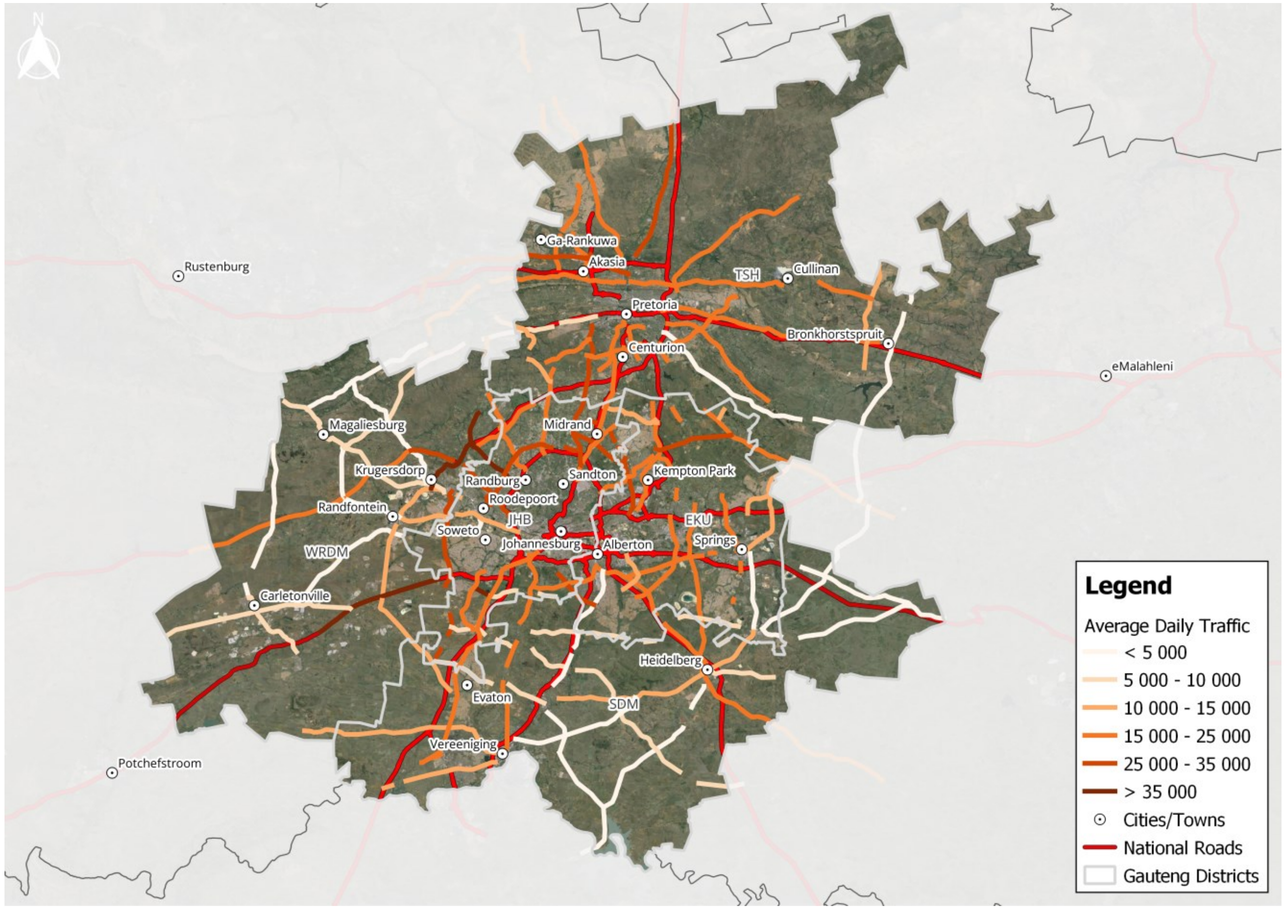
GAUTENG - FULL TIME EMPLOYMENT




Map Produced by Urban Studies, 2023
Software: QGIS

## 8.3. Average Daily Traffic in Gauteng

AVERAGE DAILY TRAFFIC – GAUTRANS ROUTES




Map Produced by Urban Studies, 2023
Software: QGIS

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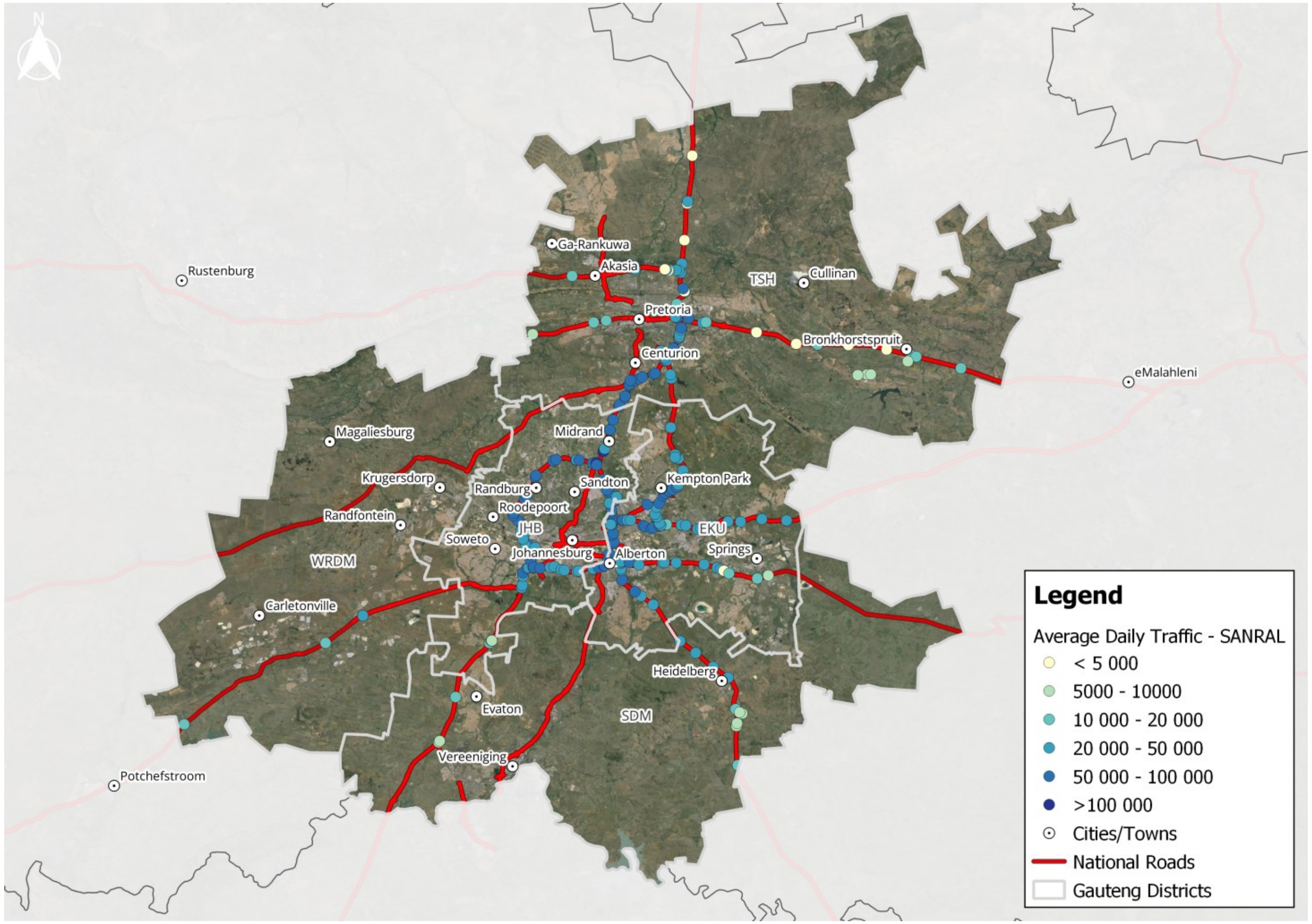
## AVERAGE DAILY TRAFFIC – SANRAL ROUTES




Map Produced by Urban Studies, 2023
Software: QGIS

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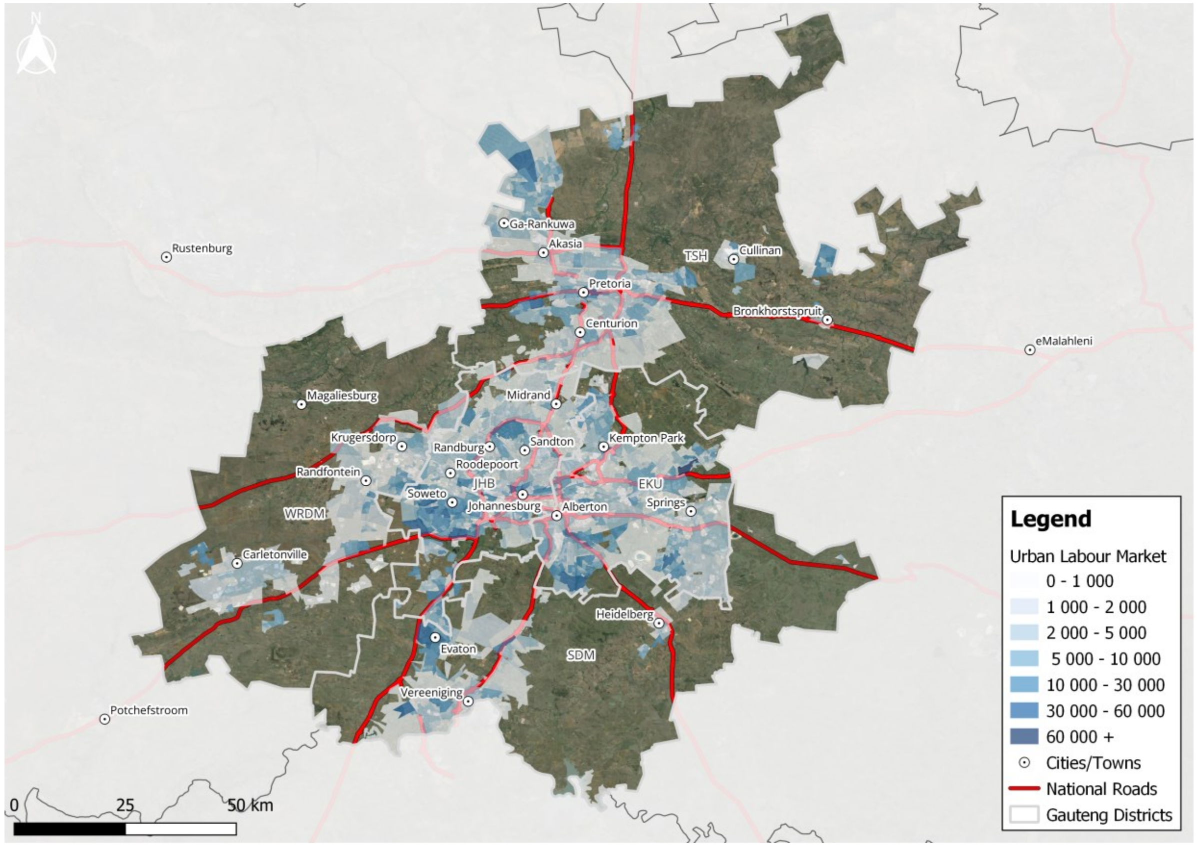
## 8.4. Home Location of Workforce

The following map showcases the home location of the workforce for the whole of Gauteng.

GAUTENG – Home Location of the Workforce




Map Produced by Urban Studies, 2024
Software: QGIS

# 9. CONCLUSION

## 9.1. Conclusion

Gauteng remains the economic hub and the largest agglomeration of an urban environment in South Africa. This creates a large influx of people seeking employment opportunities, which puts pressure on the housing market.

Geospatially it is clear that the work opportunities are concentrated in Johannesburg, Ekurhuleni, and Pretoria. However, the home locations of the workers are spread out and located on the periphery of the urban environment from the employment nodes.

Based on the findings in this report, the target market profile, geospatial workforce, mobility analysis and the market attractiveness score (MAS). All of these elements inform the MAS, which can be utilised to select a node for the first Co-Living Model. The selection of the areas for the Co-Living Model needs to be within the vicinity of the Economic nodes. It is also important to understand other factors which may contribute a larger role in deciding on which nodes to select for detailed analysis, including:

- Nodal Linkages and Connectivity
- Transportation Linkages
- Residential Growth Trends
- Market Profile (critical to align with Respublica's Target Market)

By prioritizing areas close to economic nodes and considering these additional factors, Respublica can effectively address the housing needs of young professionals and contribute to inner-city regeneration.

The implementation of the Co-Living Model has the potential to not only provide much-needed housing solutions but also to stimulate economic growth and improve the overall quality of life for residents in Gauteng. Through collaboration between the public and private sectors, it is possible to work towards creating more inclusive and sustainable communities for the future.