



Planning Africa 2016

Conference Paper
4 July 2016
Parallel session 1.2

Are We Achieving Spatial Transformation In South Africa?
Can Sub-City Spatial Indicators Make a Contribution?

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1. Realities of cities

- South Africa experiencing rapid urbanisation



- In 2030 – 71% of population will live in urban areas (UN)
- Need to make sure cities are liveable, inclusive, sustainable and resilient

2. Need to transform cities

- Also a need to spatially transform cities - Since 1994 spatial transformation has been a priority – various policies
- “Still remain amongst the most inefficient urban environments in the world” (Du Plessis and Landman, 2002)
- Cities need to track growth and trends...to respond and guide (often use own data = makes comparison difficult)
- Need to explore and track **place specific progress** to measure *integration, transformation, densification* (Turok, 2015)
- **Challenge - to measure changes = indicators relevant and trackable**

3. Tracking indicators

- SA unique experience in tracking and directing spatial change NOT comparable to other countries (Harrison & Todes, 2015)
- What do we need? = relevant **spatial specific indicators**
- Issue of tracking not new:
 - Cities are obliged to report outcome indicators
 - Treasury City Support Programme
 - DPME, SALGA
- Urban indicators project 2013 (SACN)

4. Developing indicators

Challenges:

- Unavailability/ incompleteness of data
- Collecting data from source
- Methodological changes
- Spatial unit – size variation, changes in boundaries between periods, scalability and non-alignment of units, generalisation error
- Scale: aggregation of data, reporting unit large not reflecting fine grain
- Pattern detection requires scale to be sufficiently fine

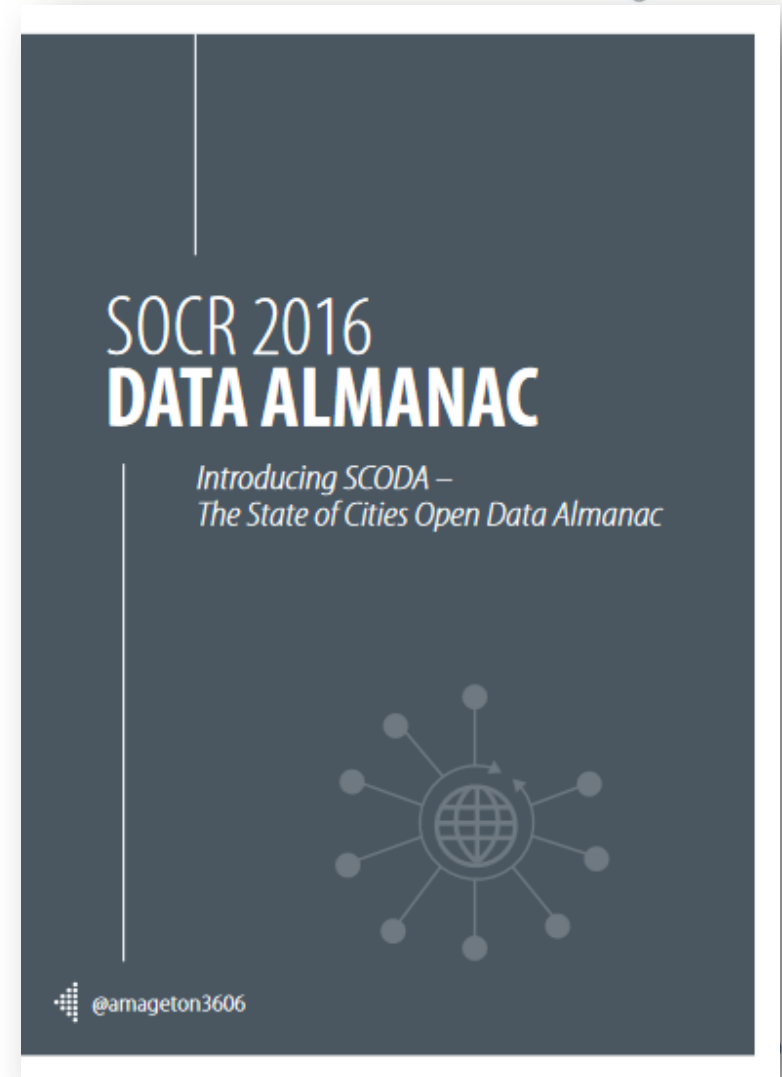
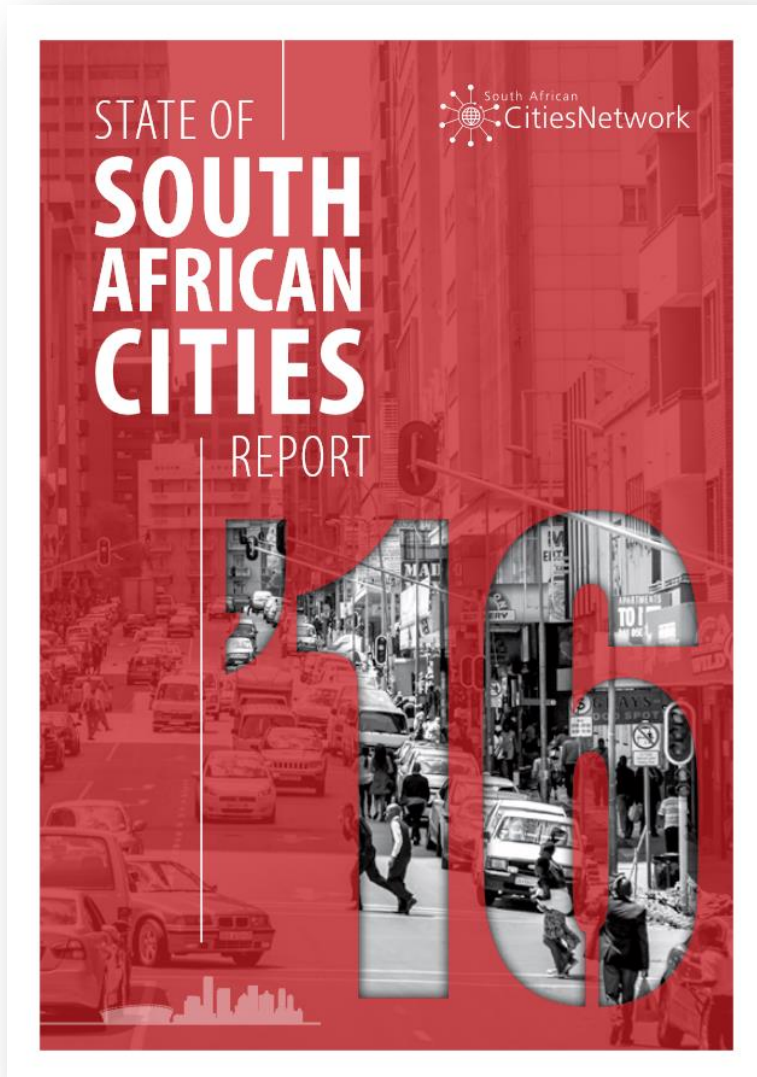
4. Developing indicators

- Relevant and **aimed at desired outcome** and comply with criteria
 - Appropriateness/ Relevance
 - Specific
 - Verifiable
 - Statistical soundness
 - Repeatable
 - Cost effective (proxy)
 - Comparable (standardisation)
- Confirm to SDI good practice

Standard Assessment
Procedure

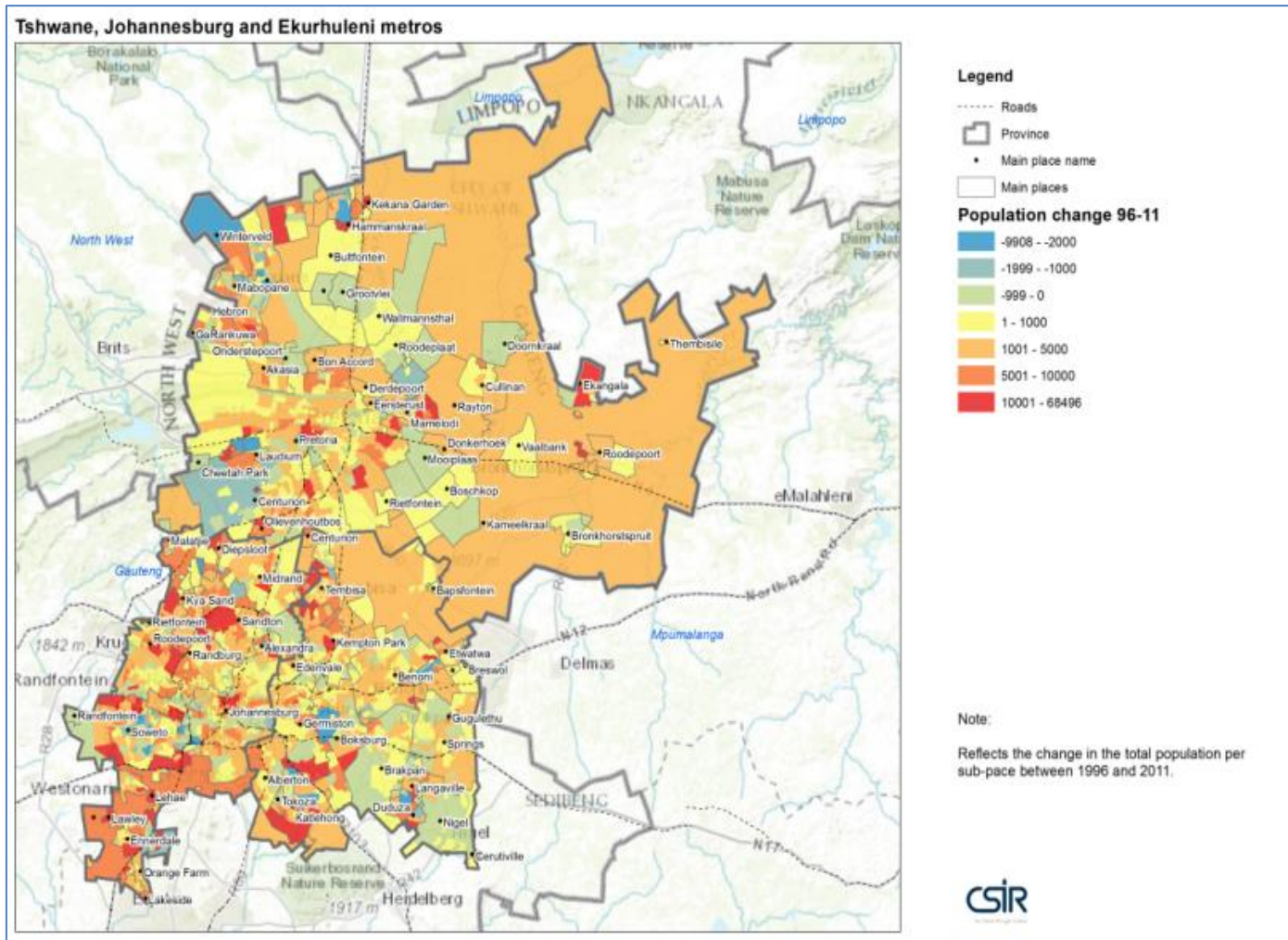
Accreditation by the South
African Statistical Quality
Assessment Framework -
SASQAF

5. Project - SACN



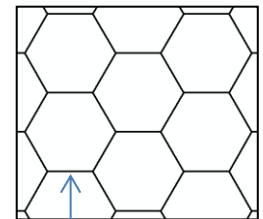
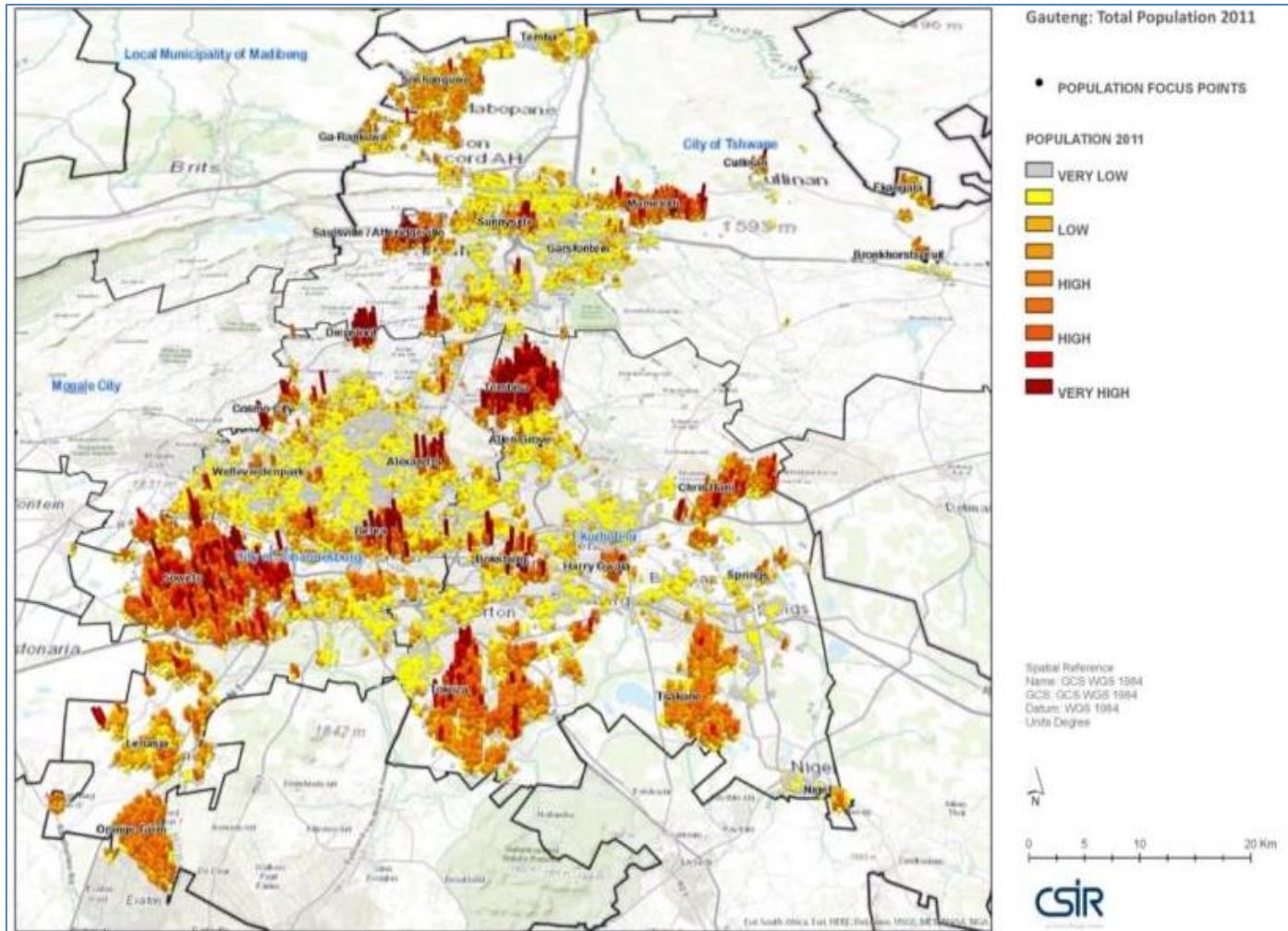
6. Examples - indicators

Population change: 1996 – 2011 (using sub-place)



6. Examples - indicators

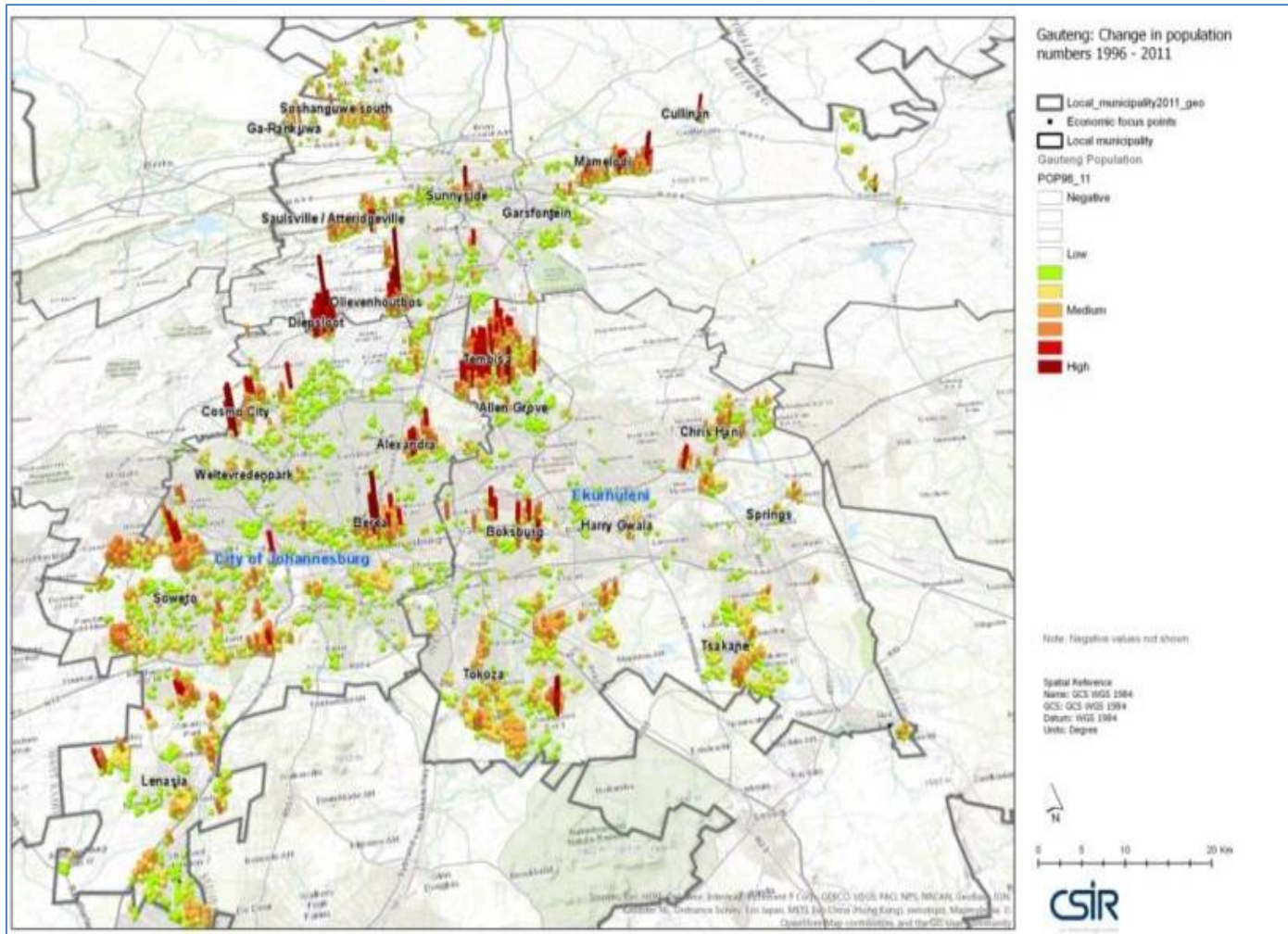
Population – 2011 (using uniform fine zones)



250m

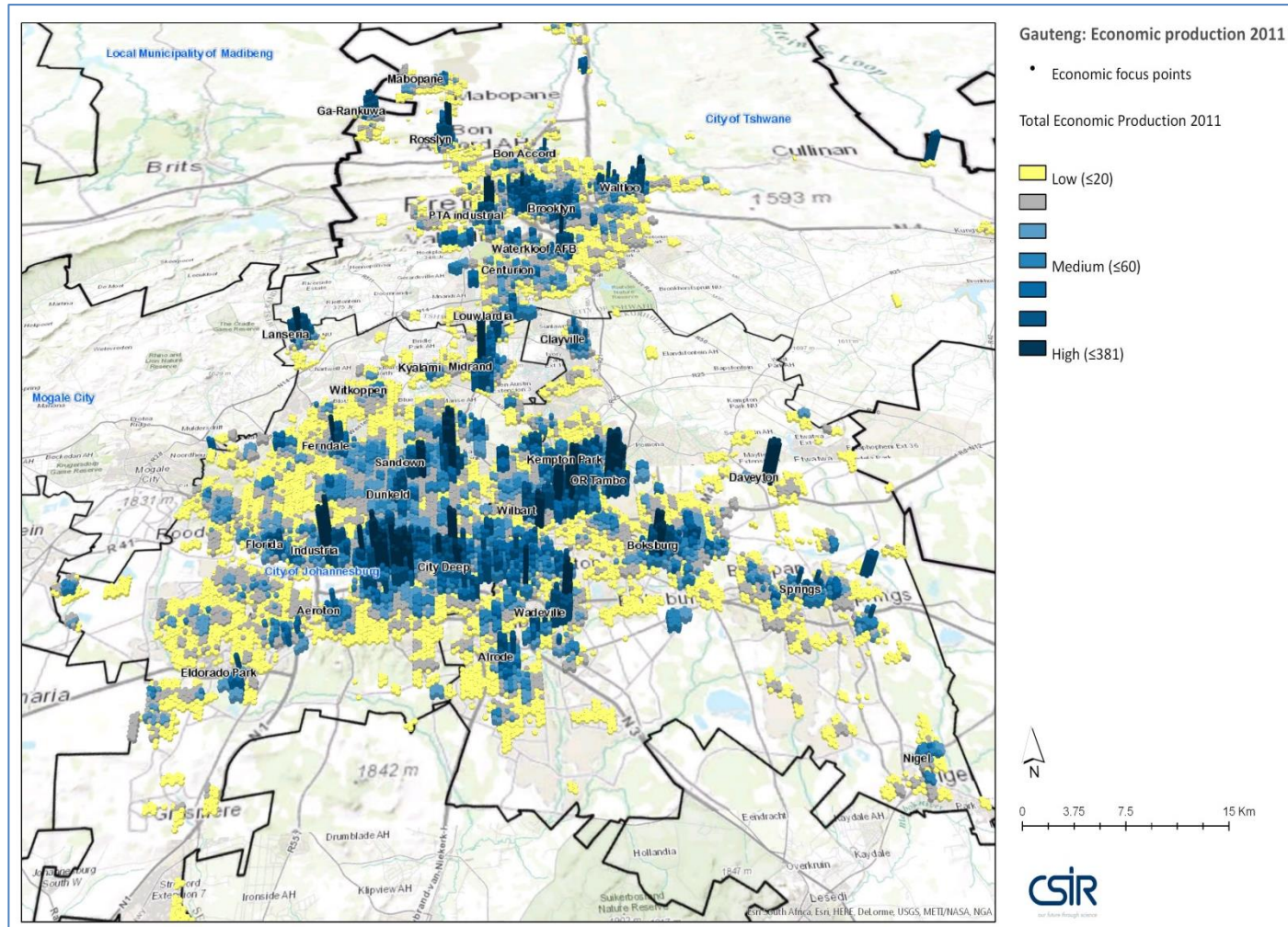
6. Examples - indicators

Population change: 1996 – 2011 (using uniform fine zones)



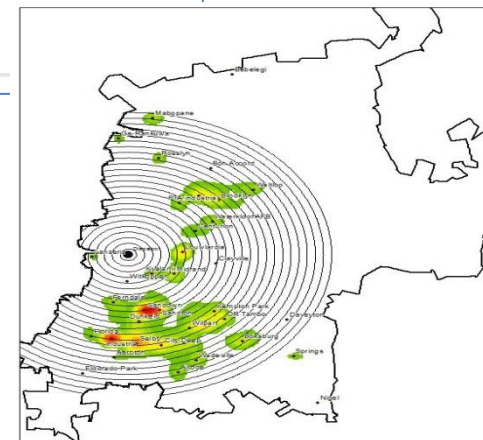
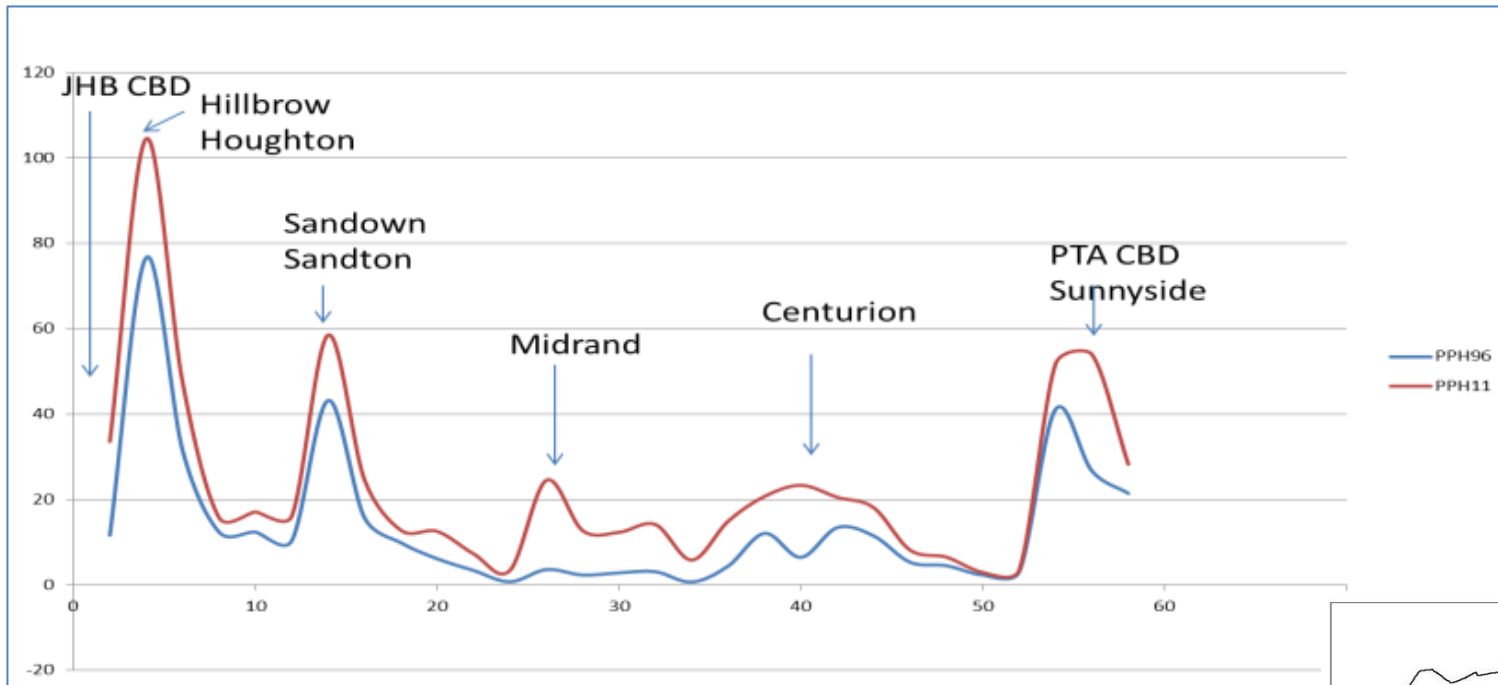
6. Examples - indicators

Economic production – 2011 (using uniform fine zones)



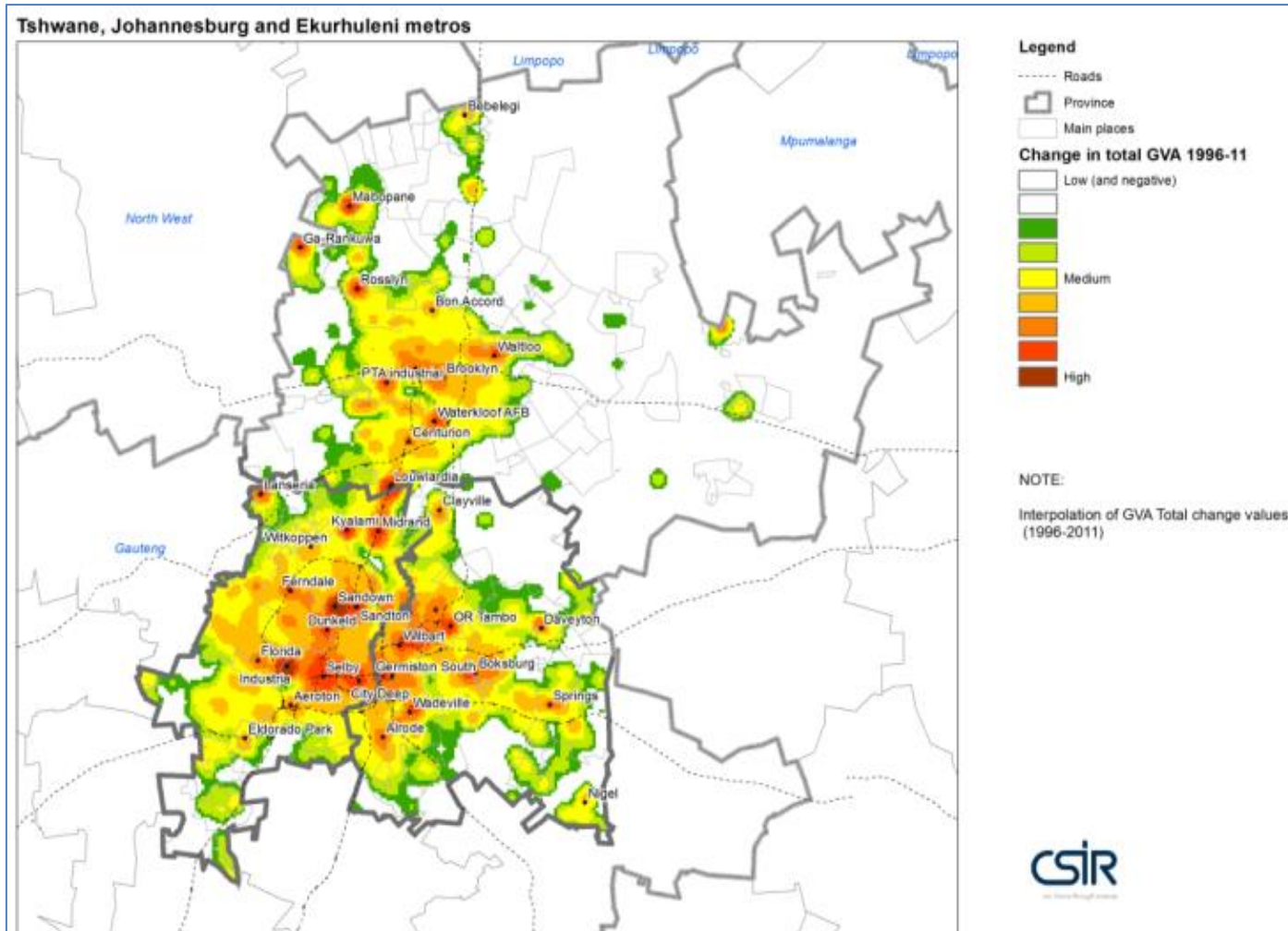
6. Examples - indicators

People per Ha 1996 vs 2011 (linear transect)



6. Examples - indicators

GVA change: 1996 – 2011 (interpolation from uniform fine zones – ‘heat map’)



7. Reflect / Conclude:

- **Need to track, monitor and evaluate** set to continue, even increase
- **Spatial-temporal aligned sub-city indicators** important as baseline
- Indicator built on a **finer spatial granularity more useful** to grasp spatial realities
- **Rely on proxy information** – kept up to date also
- **Enables** other forms of analysis
- Some **items not present** – example informal economy
- Merit in **collaboration and in involving users** to ensure appropriateness

7. Reflect / Conclude:

Presentation on Tuesday 5 July, 2016

Parallel Session: 4.5 (16h00 - 17h30), Committee Room-5 (Level 4)

Spatial change as drivers of risk and vulnerability in South Africa: Spatial trends in the 3 metropolitan cities of Gauteng.

Presented by Amy Pieterse



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Thank you

Please also see:

<http://stepsa.org>

<http://www.socr.co.za/>

<http://gap.csir.co.za/gap/about-gap-1>

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