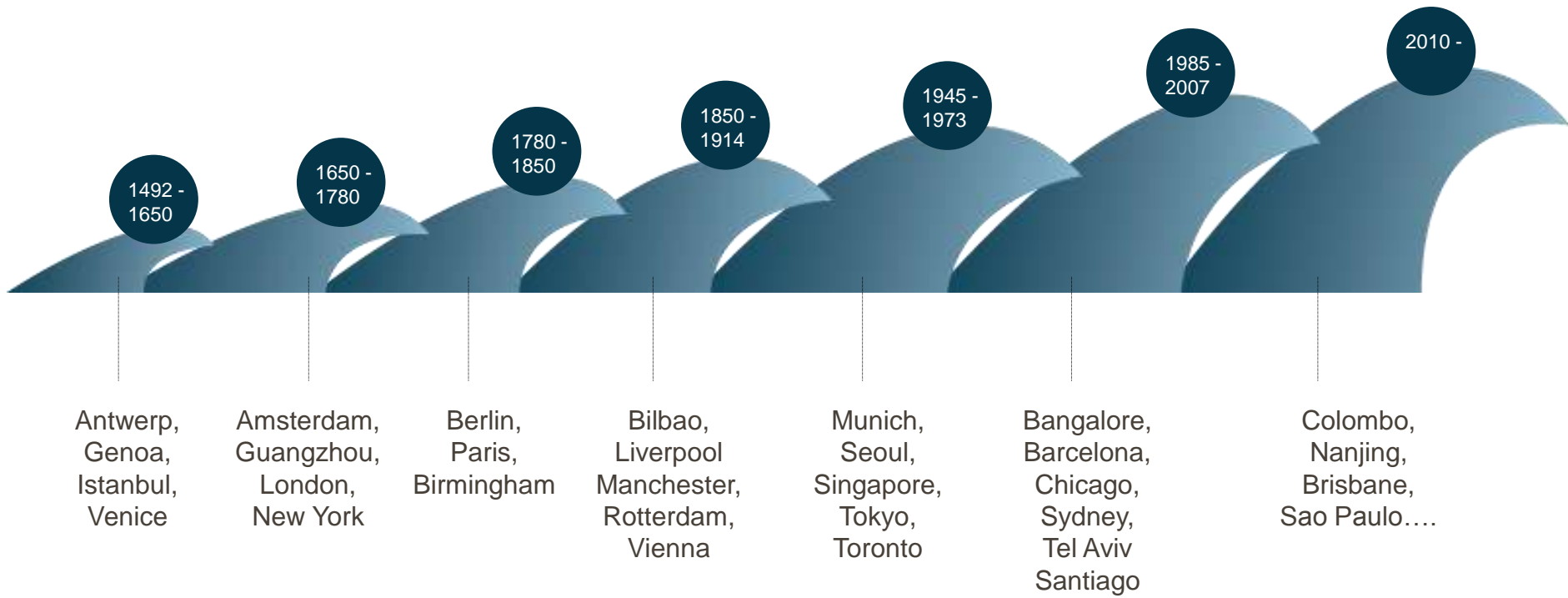


# Santiago: A Density Dividend?

Greg Clark  
December 2015

# Globalization of cities happens in waves

Cities (re)entering a global path



# The key disruptors

# Digitisation

- How we work, play, buy, interact and communicate.
- More premium on automating processes and digital systems.



# The Global War for Talent

- Gaps in supply of exceptional talent.
- More emphasis on location and lifestyle.



# The key disruptors

## The Sharing Economy

- A new era of micro-entrepreneurship
- Shapes company location, financing, preferred business framework

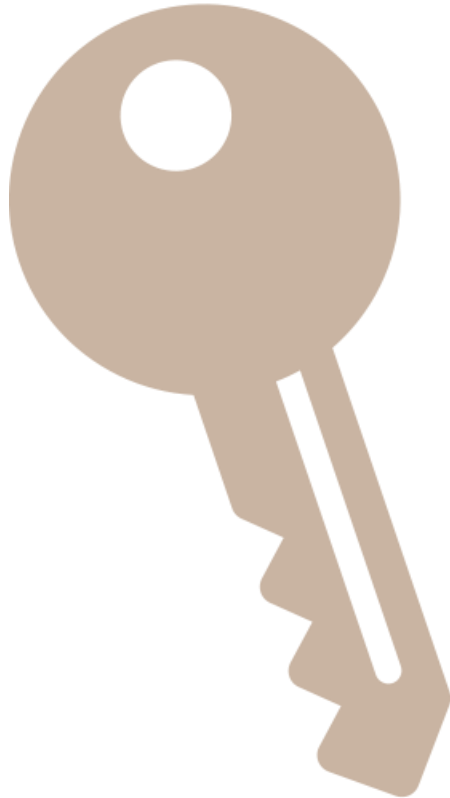


## Big Data

- Products and objects can generate high value insights.
- Socially useful apps or tools.



# Cities and business: 6 key trends



1



Cities are Emerging Markets for Businesses

2



Businesses are (Re)Urbanising

3



The rise of Tradable Urban Services

4



Cities are Hubs of Business Innovation

5



Rebranding for city markets and consumers

6



Businesses restructuring to meet City goals

# Associated trends



**Tourism**  
is  
re-urbanising



**Retail**  
is  
re-urbanising



**Housing**  
is  
re-urbanising



**The  
Knowledge  
Economy**  
is  
re-urbanising



**Urban Real  
Estate**  
is now an  
Investment  
Asset



# Density: drivers, dividends and debates

June 2015

*Authors:*

**Prof Greg Clark**  
Senior Fellow, ULI Europe

**Emily Moir**  
Director, The Business of Cities Ltd



# The Density Dividend: solutions for growing and shrinking cities

October 2015

*Authors:*

**Prof Greg Clark**  
Senior Fellow, ULI Europe

**Dr Tim Moonen**  
Director of Intelligence at The Business of Cities Ltd

Popular Density is Critical for Cities to  
Realise Advantages and Avoid Decline



# Options for accommodating global population growth



1. Allow Cities to Sprawl



2. Build New Cities  
(or Districts)

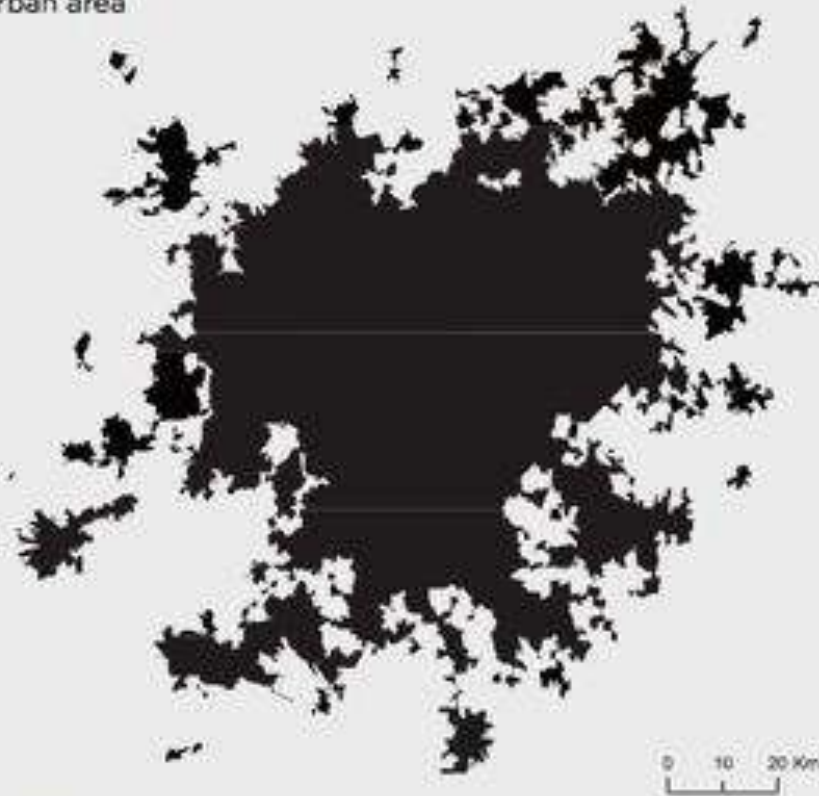


3. Densify Existing Cities

# Comparative Densities of similar populations

## ATLANTA

Urban area



Population  
**5.3** million

Urban area  
**7,692** km<sup>2</sup>

Transport carbon emissions p.c  
**6.9** tonnes

## BARCELONA

Urban area



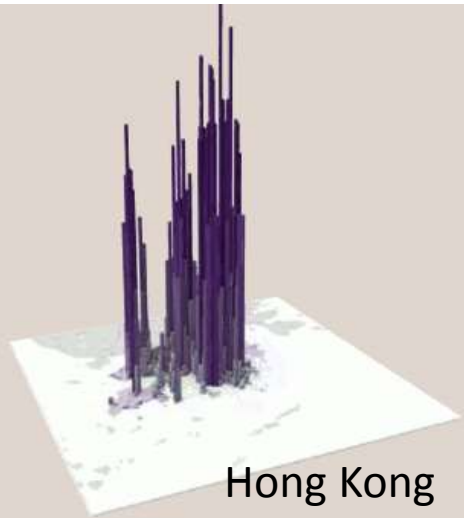
Population  
**5** million

Urban area  
**648** km<sup>2</sup>

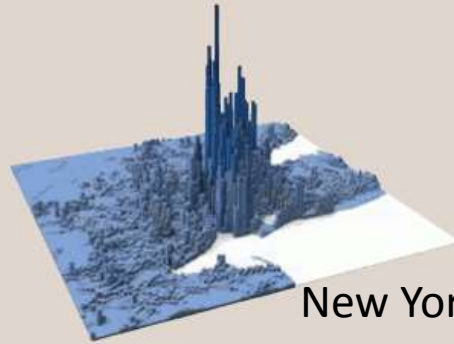
Transport carbon emissions p.c  
**1.16** tonnes

Source: LSE Cities 2014

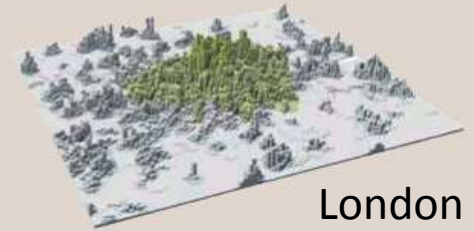
More compact development can reduce transport emissions by an order of magnitude.



Hong Kong



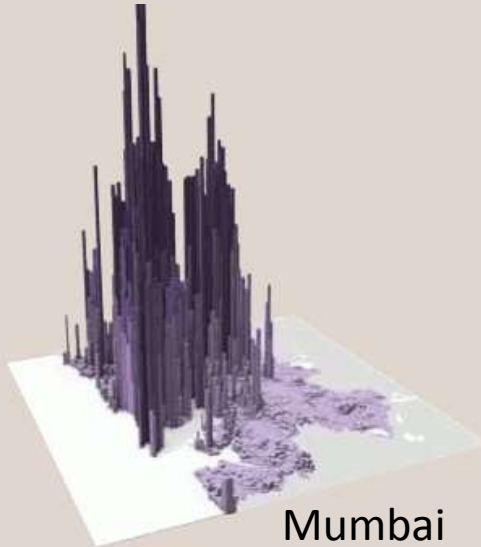
New York



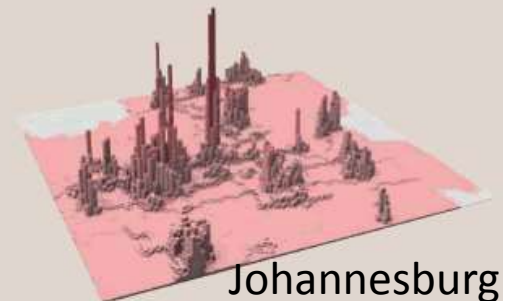
London



Istanbul



Mumbai



Johannesburg

Source: LSE Cities 2012

# Differentiating good density from bad density

Mixed Use	Connected	Planned	Spacious
Liveable	Outcomes of Good Density		Cohesive
Incremental	Designed	Green	Appropriate



Monotonous	Isolated	Unmanaged	Unliveable
Crowded	Outcomes of Bad Density		Conspicuous
Segregated	Inflexible	Ugly	Polluting

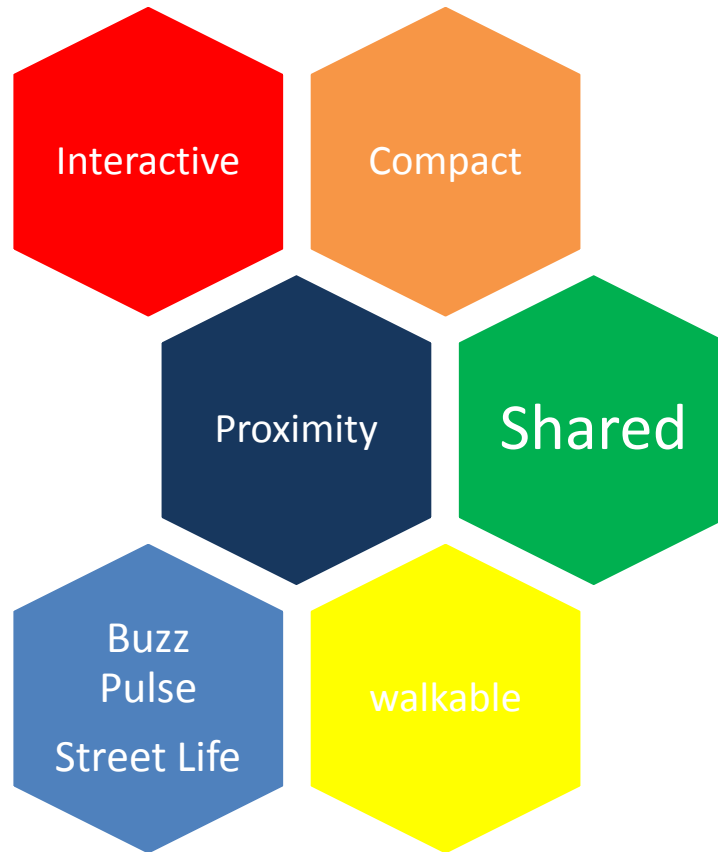




# Doomed Density: memories, myths, and mixed feelings



# What do we like about Density?



Density means different things to different people

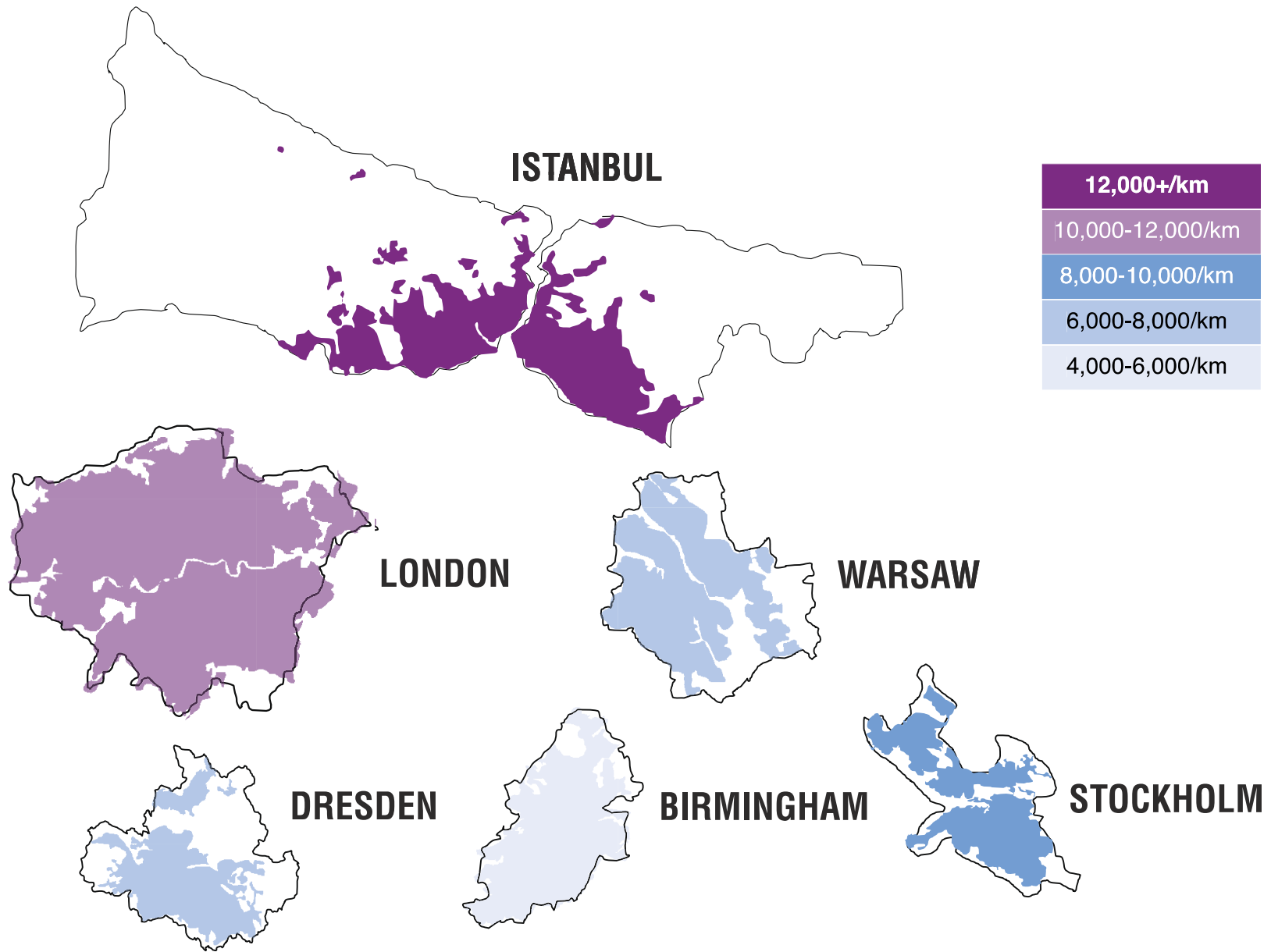
# Three big challenges: unintended consequences

- Density and affordability.
- Density and segregation.
- Density and democracy.



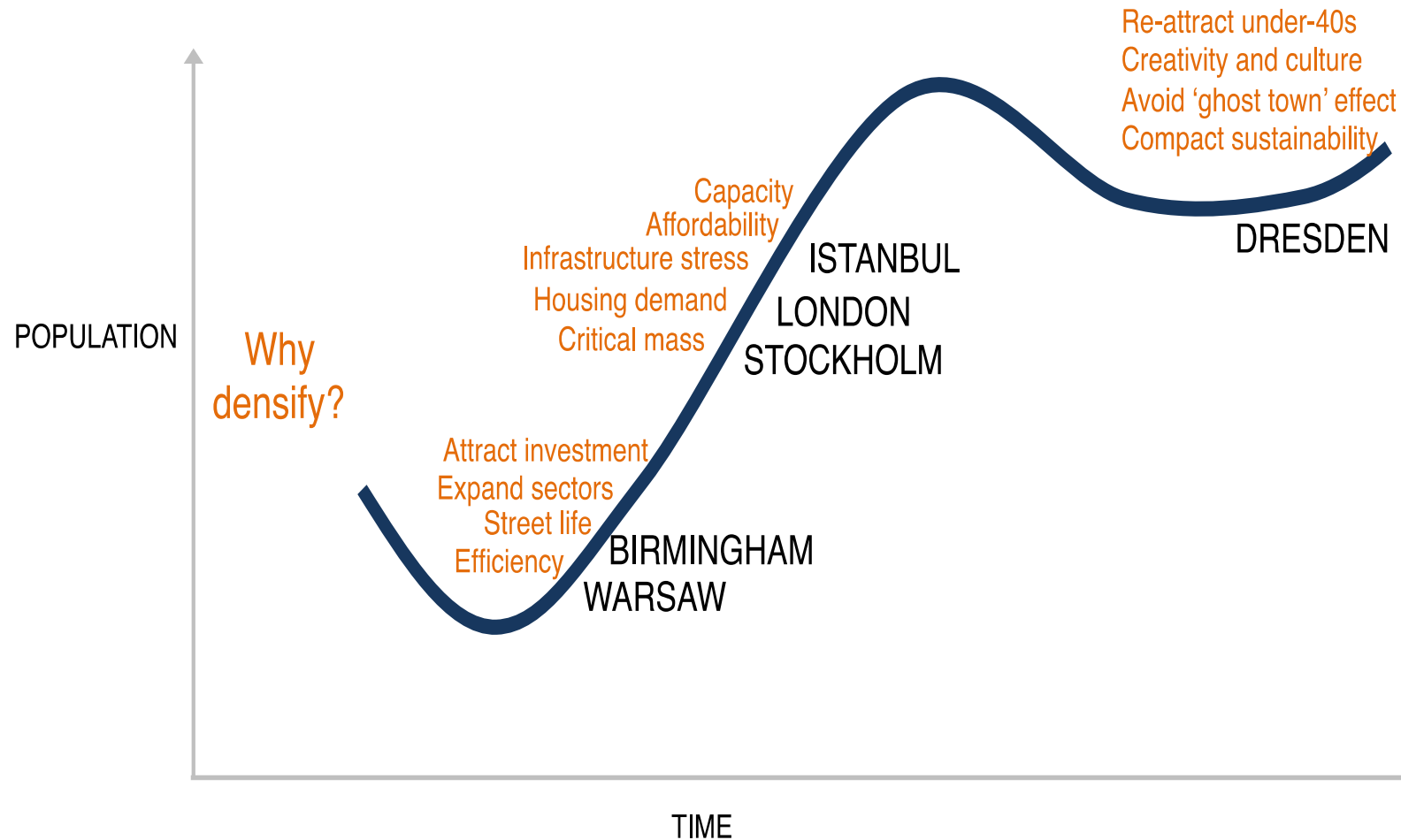
# The Density Dividend:

solutions for growing and shrinking cities

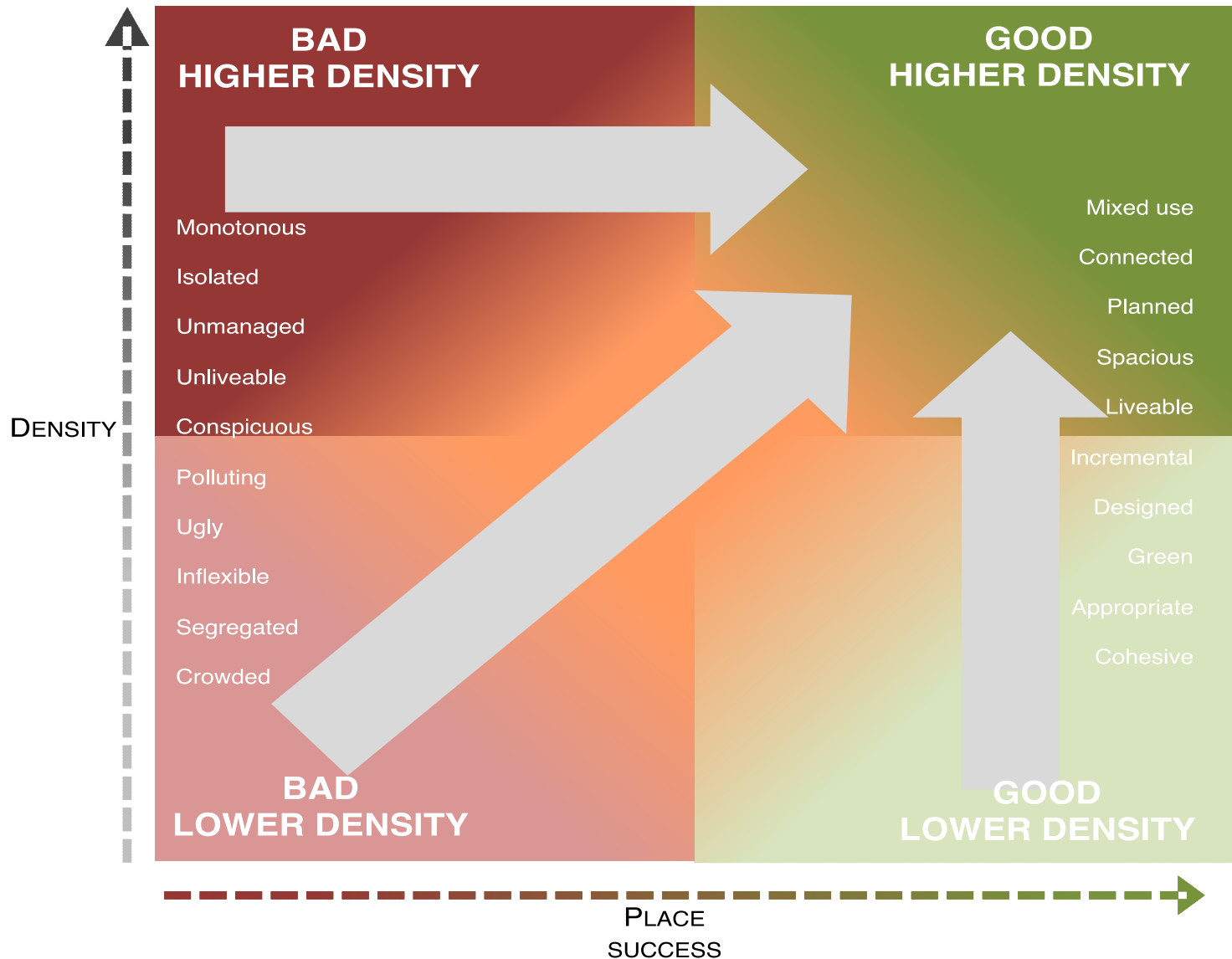




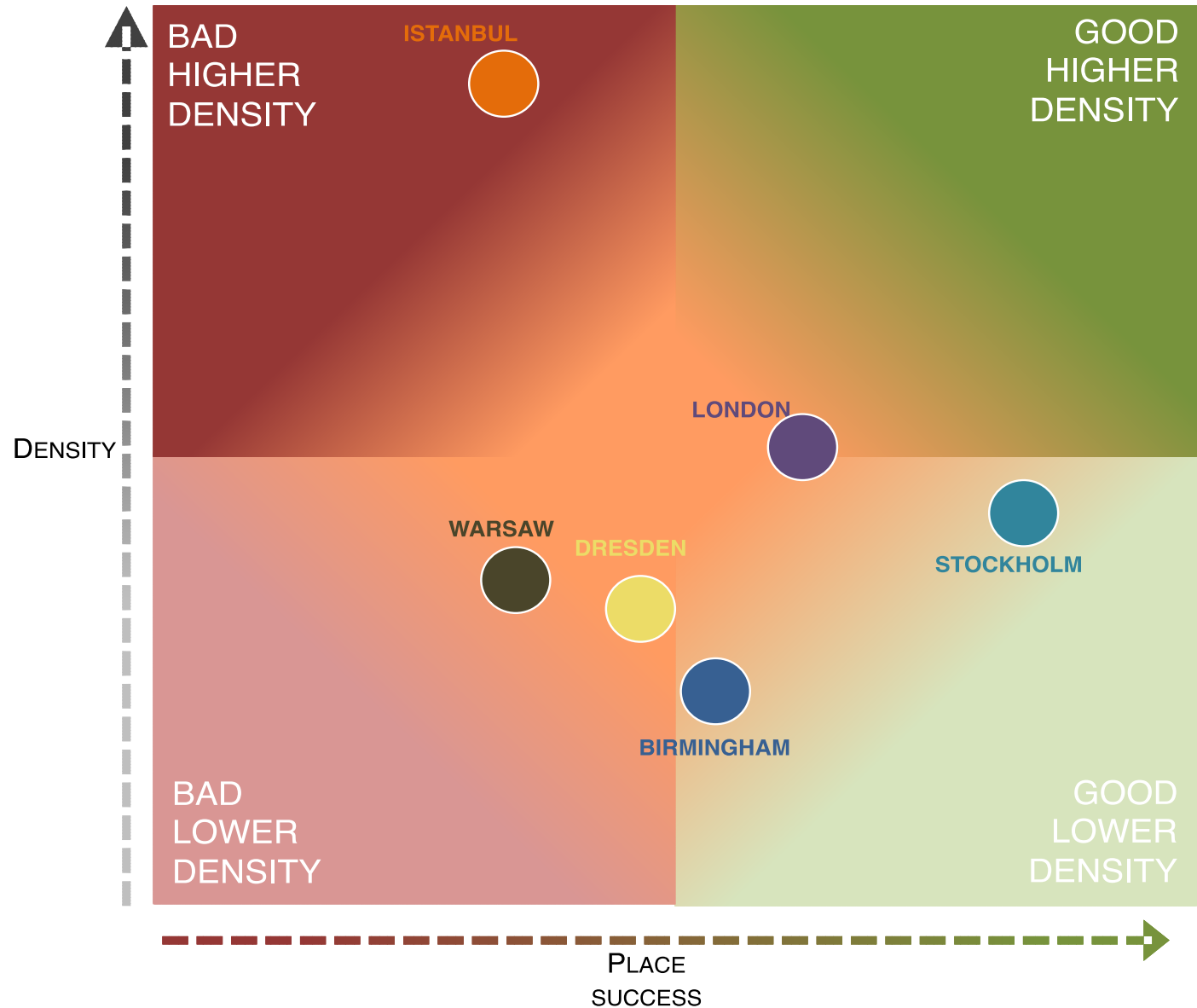
# Different cycles and paths for cities



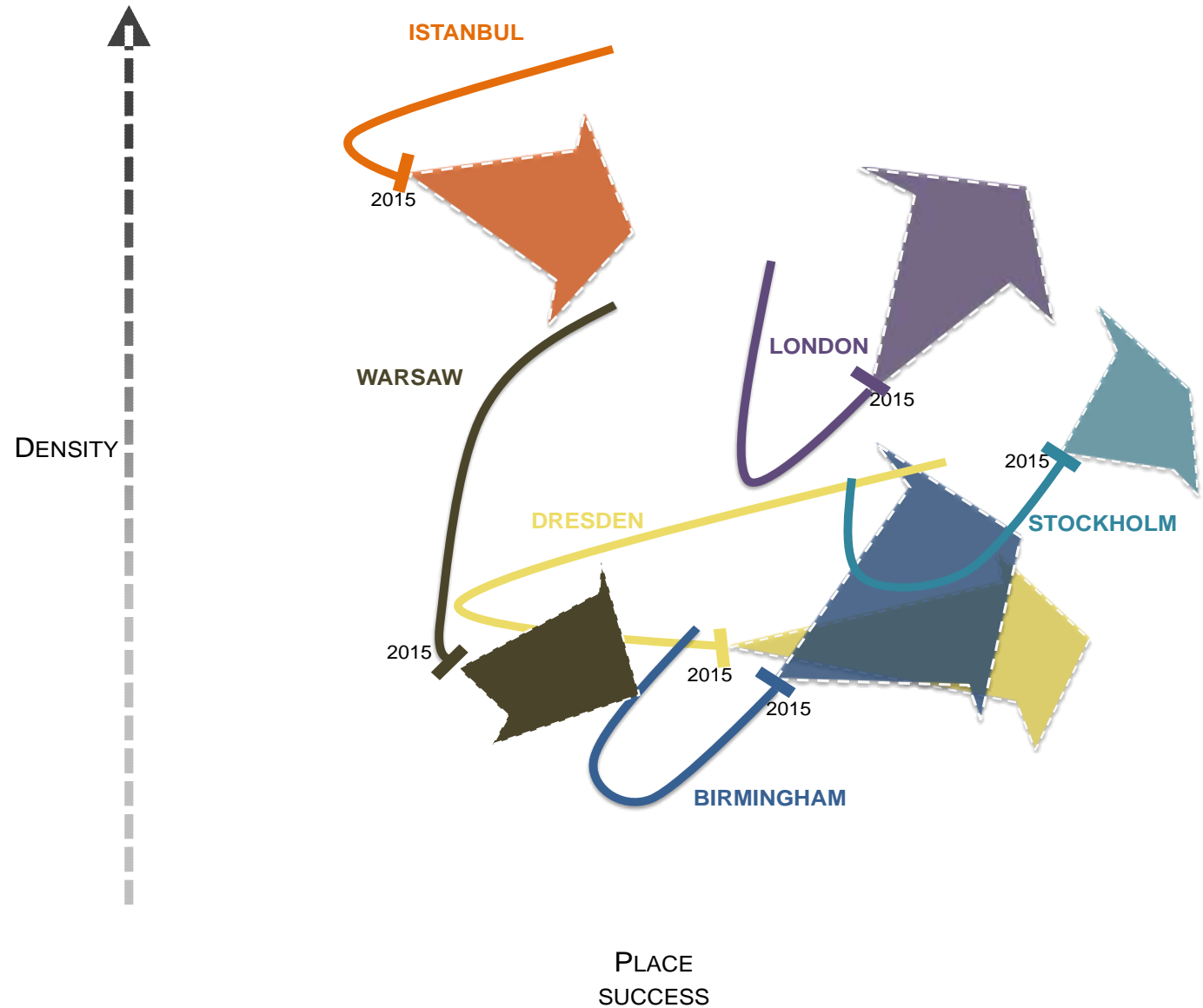
# The journey to good density



# Current Location of the 6 cities



# The path of each city



## What's working?

- Metro-wide frameworks
- Utilising PPPs and private initiatives
- Concentration on prioritised areas
- Financial tools
- Design and planning for place-making

## Who's leading?

- Public authorities (e.g. Birmingham Municipal Housing Trust)
- Development corporations
- Public landholders
- Experienced Developers



# Tactics of Density

- Right mix of locations
- Sequenced and integrated projects
- Quick wins
- Regional collaboration
- Re-imagining the suburbs

## Regeneration of disused sites

*(e.g. London Kings Cross)*

## Intensification of transport interchanges

*(e.g. Warszawa Zachodnia station)*

## Redevelopment of existing buildings

*(e.g. Dresden's Prager Zeile)*

## Different sites for densification

## Building higher in city centres

*(e.g. Birmingham Enterprise Zone)*

## Suburban infill and expansion

*(e.g. Vallingby in Stockholm)*

## Land reclamations and manmade peninsulas

*(e.g. Atakoy, Istanbul)*

# Positive Psychology of Popular Density



Densification and opportunity

For different age groups and points in life cycle

Sharing economy and the shared city

Trade off private space for public amenity

Urban life-style & vitality

Negotiated and incremental participation

Identity and Belonging; urban character

# A new Equation on Density

## Fundamentals

## Execution

## Momentum

Leadership and vision

Tactics

Multi-cycle approaches

Plan

+

?

Scale

+

?

Demand

=

?

Progress on  
Densification

Branding

Financing, legal and  
land-use tools

Positive psychology





# London

Fundamentals		Execution		Momentum		
Leadership and Vision		Tactics		Multi-cycle approaches		
Plan	+	Scale	+	Demand	=	Progress on Densification
Branding		Financing, legal and land-use tools		Positive psychology		

Established

Emerging

Not yet visible

Fundamentals		Execution		Momentum		
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# Birmingham

# Dresden

Fundamentals		Execution		Momentum		
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Emerging

Not yet visible

What about Santiago?



Global Cities 2015:  
The Race Accelerates

**Global  
Power City  
Index 2015**

**The World City  
Business Brand  
Barometer**

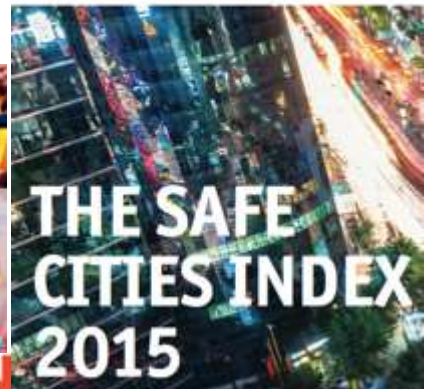
Cities of opportunity



**The Global  
Financial Cities  
Index 17**



THESE  
Cities in  
Motion Index



**2015**  
**SUSTAINABLE  
CITIES INDEX 2015**

RESTITUTION



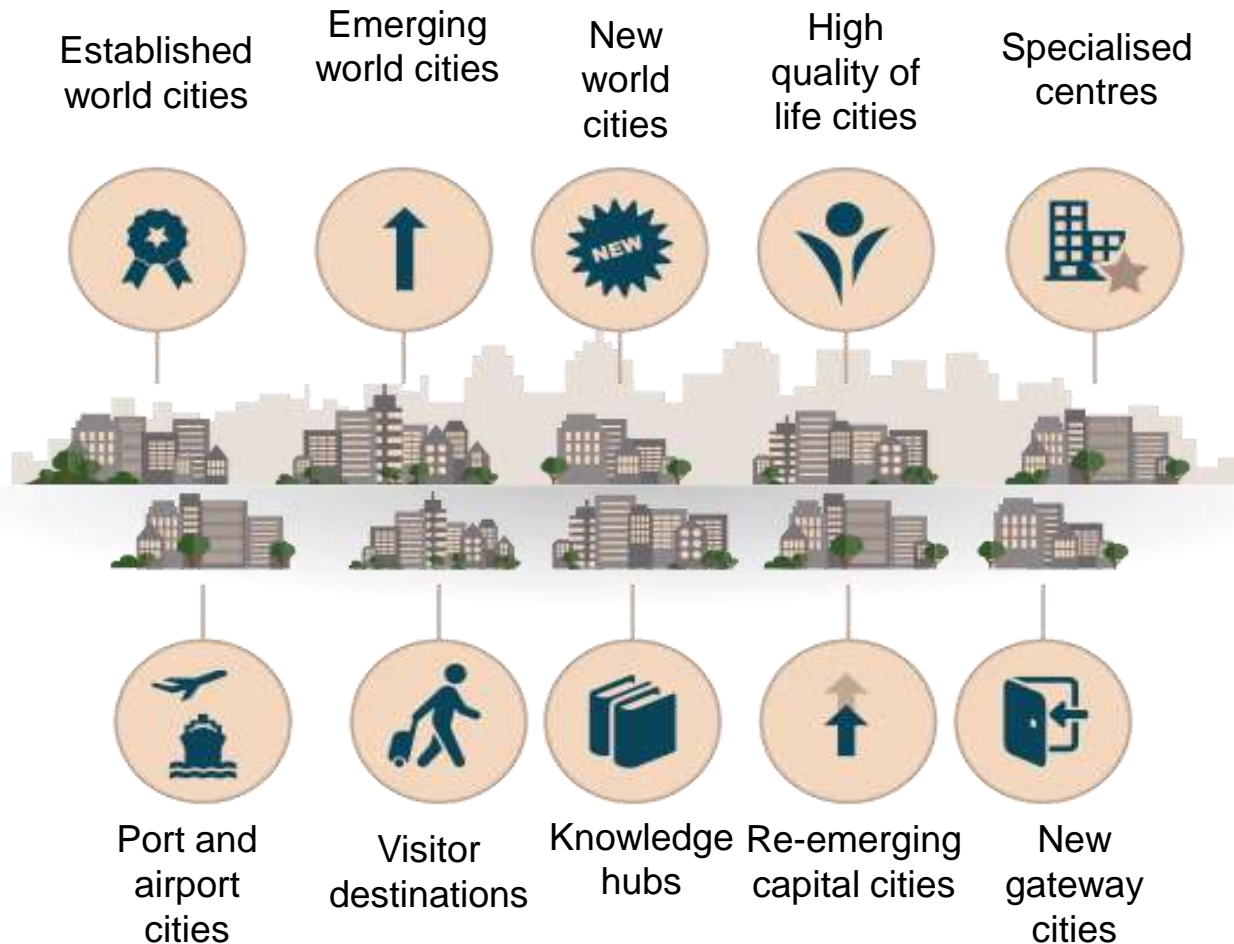
City Momentum Index



**TORONTO AS A GLOBAL CITY:**  
Scorecard on Prosperity – 2015



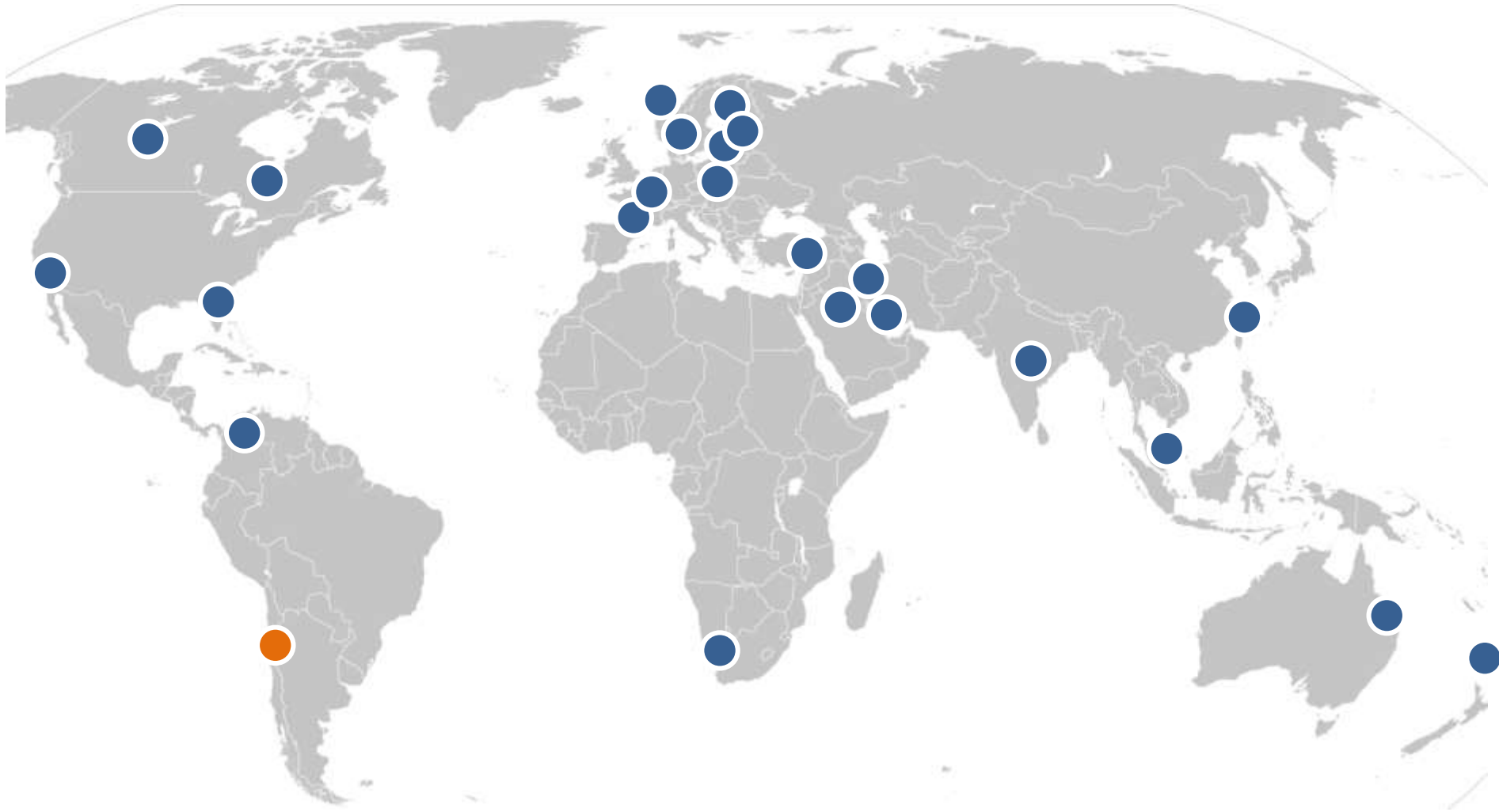
# Different Types of Globalising Cities



What is a  
type?

Origins  
Performance  
Aim  
Path  
Point in cycle

# Mapping the New World Cities



# What do New World Cities do?

- Hubs of digital, scientific, and environmental industries
- Produce film, TV, and cultural content for global consumers
- Provide R&D sites for global firms.
- Incubate and spread innovation
- Offer SMEs eco-system for trade
- Draws for enterprising migrant
- Attract students from 2+ continents
- Destinations for tourists, conventions, decision makers

## Compete in contested markets



# Defining a New World City

## Santiago

- \$100bn+ metropolitan economy ✓
- Globally oriented business clusters ✓
- Top 100 for commercial investment ✓
- Top 100 for visitors, innovation or brand ✓
- Highly competitive (top 20) in at least one area ✓
- Globally recognised for some qualities but not others ✓



# How do they succeed?

## Combining global leadership with local quality

- Size: smaller, more agile and affordable
- Expert specialisation within a more managed metropolis
- Better live-work balance
- Efficient infrastructure and densification
- Problem-solving capabilities
- Low congestion, inflation, and pollution
- Safety, security, education
- Clear leadership and identity



# Why is Santiago a New World City?

Risen into top 50 most globally linked city economies (GaWC)

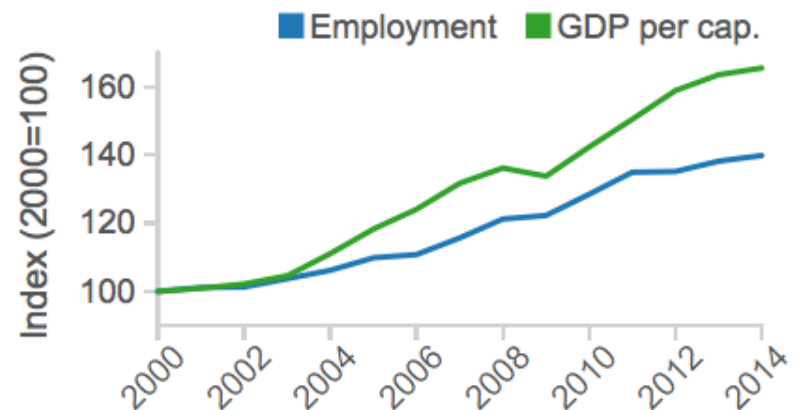
Top 25% of fastest growing cities since 2000 (Brookings)

Globally it is top 30 for:

- Start-ups (Start-up Genome)
- Outsourcing (Tholons)

In Latin America it is the:

- No.5 largest metropolitan economy (Brookings)
- No.2 student city (QS)
- No.2 investment city of the future (fDi Intelligence)
- No.1 best local management model (services) (IESE Cities in Motion Index)
- No.1 for urban digital and infrastructure safety (EIU)
- No. 2 for youth liveability (Youthful Cities Index)



© Brookings 2015

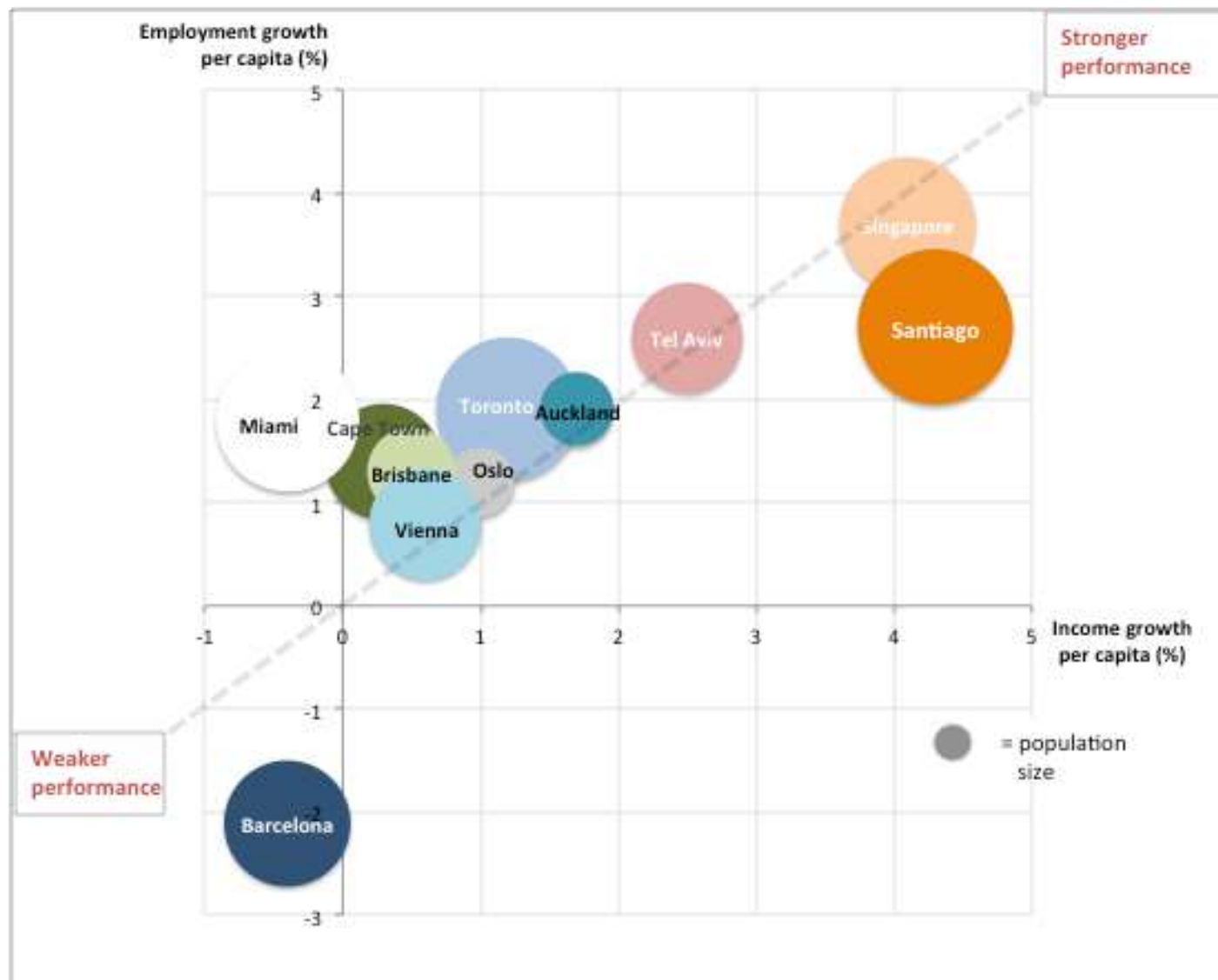
# Santiago: A competitive New World City

	GDP /\$bn	GDP per capita/ \$'000
Singapore	366	67
Toronto	276	46
Miami	263	44
Vienna	184	49
<b>Santiago</b>	<b>171</b>	<b>24</b>
Barcelona	171	36
Tel Aviv	153	43
Doha	140	146
Brisbane	97	42
Oslo	74	53
Cape Town	59	14
Auckland	50	32

	GaWC global connectivity	Change in rank since 2000
Singapore	5	+1
Toronto	17	-7
Vienna	27	+13
Miami	36	-11
Barcelona	37	-5
<b>Santiago</b>	<b>49</b>	<b>+8</b>
Tel Aviv	60	+31
Cape Town	64	+30
Auckland	72	-34
Oslo	79	-13
Brisbane	80	-8
Doha	83	+96

Source: Brookings Global Metro Monitor (2014); Globalization and World Cities (2013)

# New World Cities: growth since the global financial crisis



**Santiago has maintained its rapid growth path compared to other New World Cities**

# Santiago's index performance

		Innovation	Talent	Liveability	Brand	Meetings	Visitors
		2 thinknow Innovation Cities 2014	AON People Risk Index 2013	EIU Liveability Index	Reputation Institute City Reprtrak 2015	ICCA City ranking 2014	Euromonitor 2015
1	Vienna	6	37	1	4	2	28
2	Singapore	27	2	26	34	7	2
3	Toronto	11	3	15	26	39	61
4	Barcelona	56	49	38	6	5	25
5	Oslo	32	16	31	18	48	100+
6	Miami	48	21	65	41	97	20
7	Auckland	106	40	3	29	125	100+
8	Brisbane	60	-	37	46	67	100+
9	Doha	251	31	108	-	108	43
10	Santiago	396	52	93	62	32	100+
11	Cape Town	128	-	91	77	41	100+
12	Tel Aviv	24	45	105	92	240	100+

# Santiago: a centre of knowledge and entrepreneurship

	QS best student cities	EIU 'Human Capital'	Start Up Genome Index
Oslo	-	6	-
Miami	-	19	-
Auckland	22	21	-
Toronto	9	23	8
Barcelona	19	29	-
Vienna	20	30	-
Santiago	44	35	20
Singapore	15	36	17
Cape Town	-	40	-
Doha	-	53	-
Tel Aviv	-	55	2
Brisbane	23	-	-

- **Punches above its weight for talent and innovation**
- **Best city do to business in Latin America** (fDi Intelligence)
- **1<sup>st</sup> in Latin America for Urban Investment Attraction** (CEPEC)

# Santiago: a leading Latin American brand

	ICCA City ranking 2014	City RepTrak 2015	EIU 'Global Appeal'	Saffron Brand Barometer 2015
No of cities	400+	101	120	67
Barcelona	5	6	9	10
Vienna	2	4	10	20
Singapore	7	34	4	-
Oslo	48	18	46	-
Toronto	39	26	28	42
Miami	97	41	57	13
<b>Santiago</b>	<b>32</b>	<b>62</b>	<b>49</b>	<b>33</b>
Auckland	125	29	71	-
Cape Town	41	77	64	-
Brisbane	67	46	-	53
Doha	108	-	60	65
Tel Aviv	240	92	67	24

- Strong conference economy

- Increased edge

- Not (yet) widely known or admired globally

## Santiago: liveability not yet recognised due to development status

	Mercer Quality of Living Survey	EIU Safe Cities Index
Auckland	3	-
Toronto	15	8
Singapore	26	2
Oslo	31	-
Brisbane	37	15
Barcelona	38	-
Cape Town	91	-
Santiago	93	28
Doha	108	29

- **Basic HDI indicators still behind**
- **But highly ranked in emerging world for personal safety, infrastructure quality (EIU)**

## But, Santiago: an emerging leader for sustainability

- Above average on modal split for transport, water, sanitation and waste disposal
- Most sustainable New World City in emerging economies (ARCADIS Index)

# Santiago: the Smart City opportunity?

- Smartest city in Latin America (Indra Smart Cities Survey)
  - Safe
  - Good healthcare
  - Cleanliness
  - Extensive E-government
- Top City in region for
  - Public Governance
  - Public Management (IESE)
- On a par with New World Cities such as Barcelona, Tel Aviv



# Overall, Santiago as a New World City

## STRENGTHS

- Highly rated for business friendliness and investment readiness
- A regional knowledge centre: educated population, strong start-up scene, higher education institutions
- Environmental and system security advantages
- Stability, governance, good public management/services.

## WEAKNESSES?

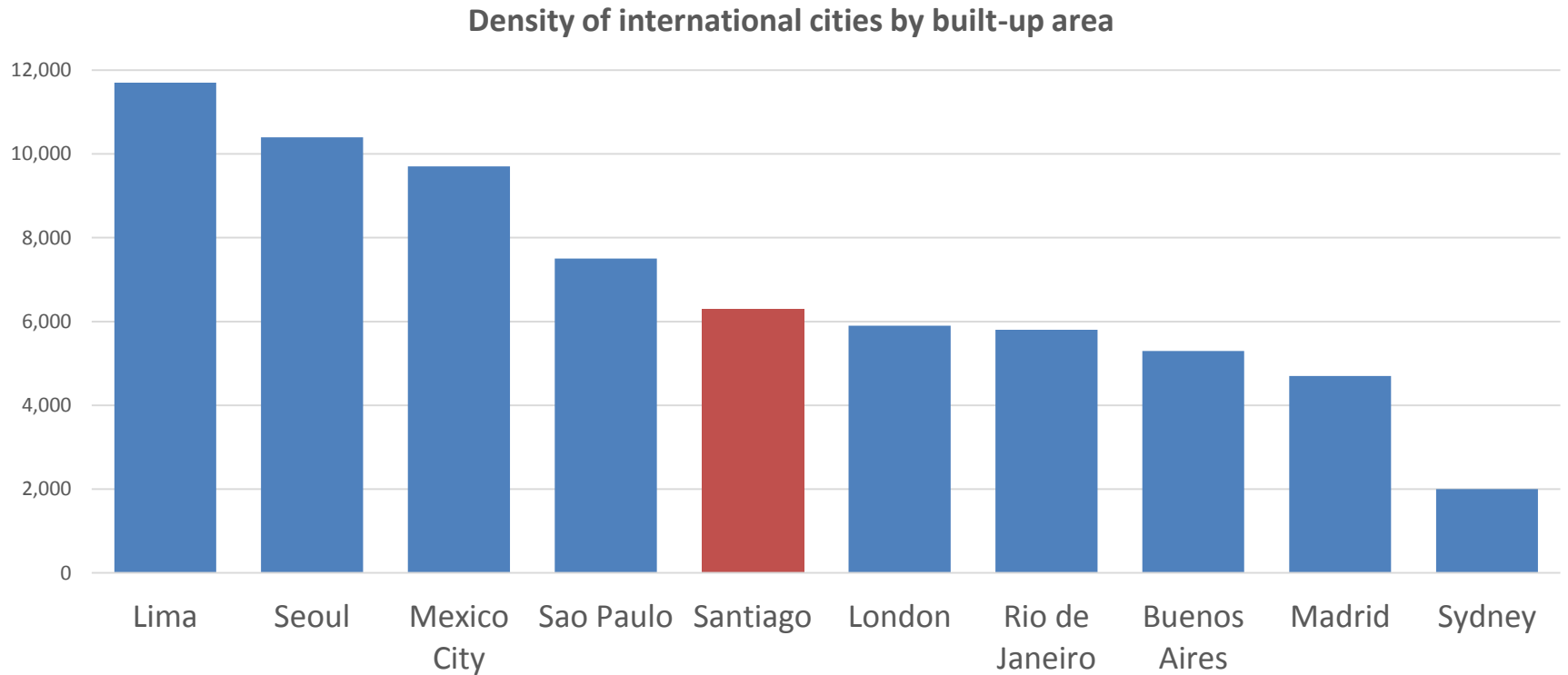
- Metropolitan mobility, efficiency, and co-ordination
- Housing and health systems
- Low density for a knowledge intensive economy
- Held back by national indicators?

Lack of visibility in global markets is an opportunity?

What is the Santiago strategy for the next 5 years?

How do Santiago and Chile work together?

# Santiago is a medium-density city



Source: Demographia (2015), World Urban Areas

# But be careful when measuring density!

	Size	Density/km <sup>2</sup>	Similar international comparison
Santiago Commune	22.4km <sup>2</sup>	9,000	Inner London, Jersey City
Santiago Municipality	640km <sup>2</sup>	8,500	Singapore, Nairobi
Santiago built up area	900km <sup>2</sup>	6,300	Greater London, Rio de Janeiro
Santiago Province	2,000km <sup>2</sup>	2,500	Johannesburg province Sydney
Metropolitan Region of Santiago	15,000km <sup>2</sup>	440	Dallas metropolitan area, Miami metropolitan area

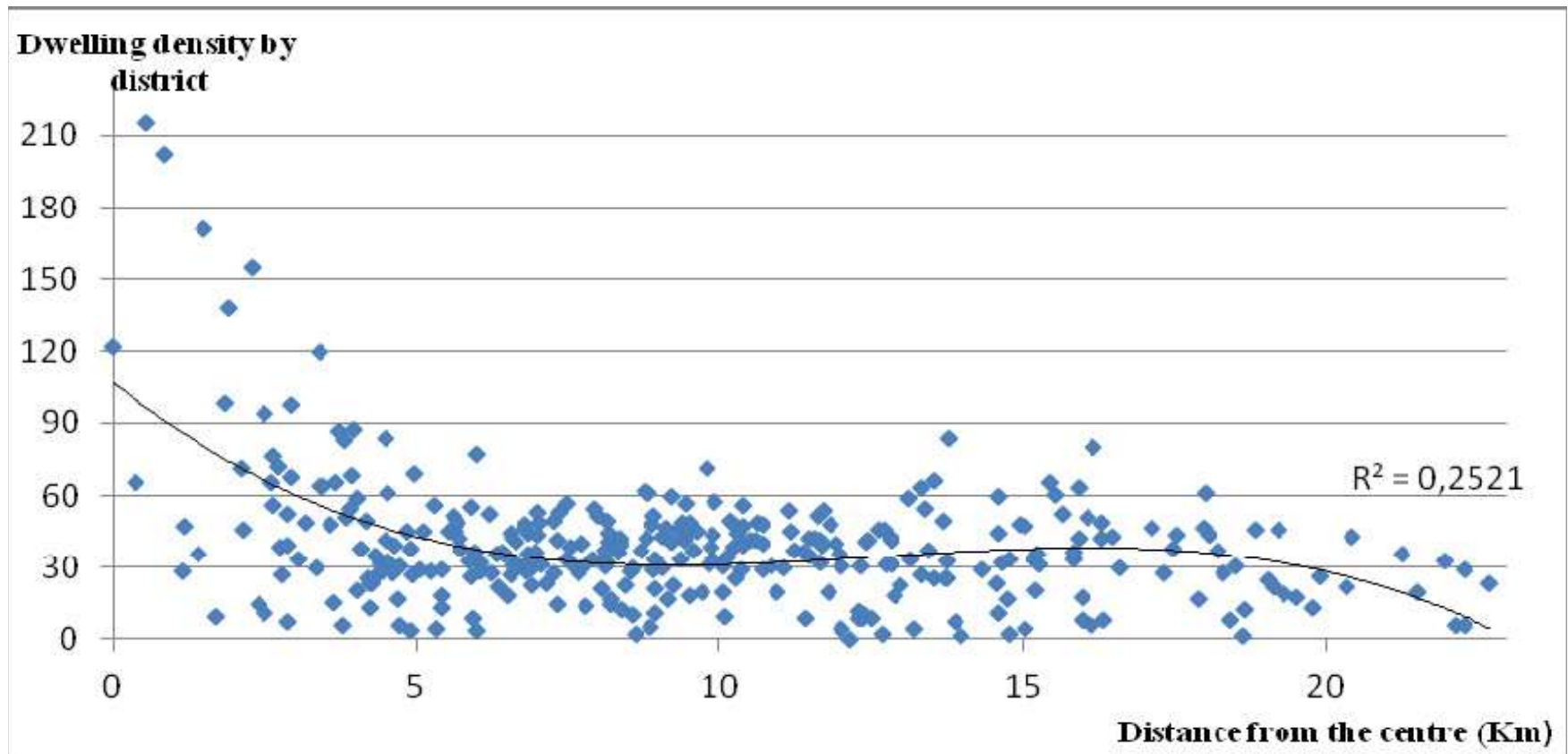
A problem of sprawl and low metropolitan regional co-ordination

Source: Instituto Nacional de Estadísticas; Demographia (2015), World Urban Areas

Combined with high demand by a growing population

Hence a need for both densification and metropolitan management

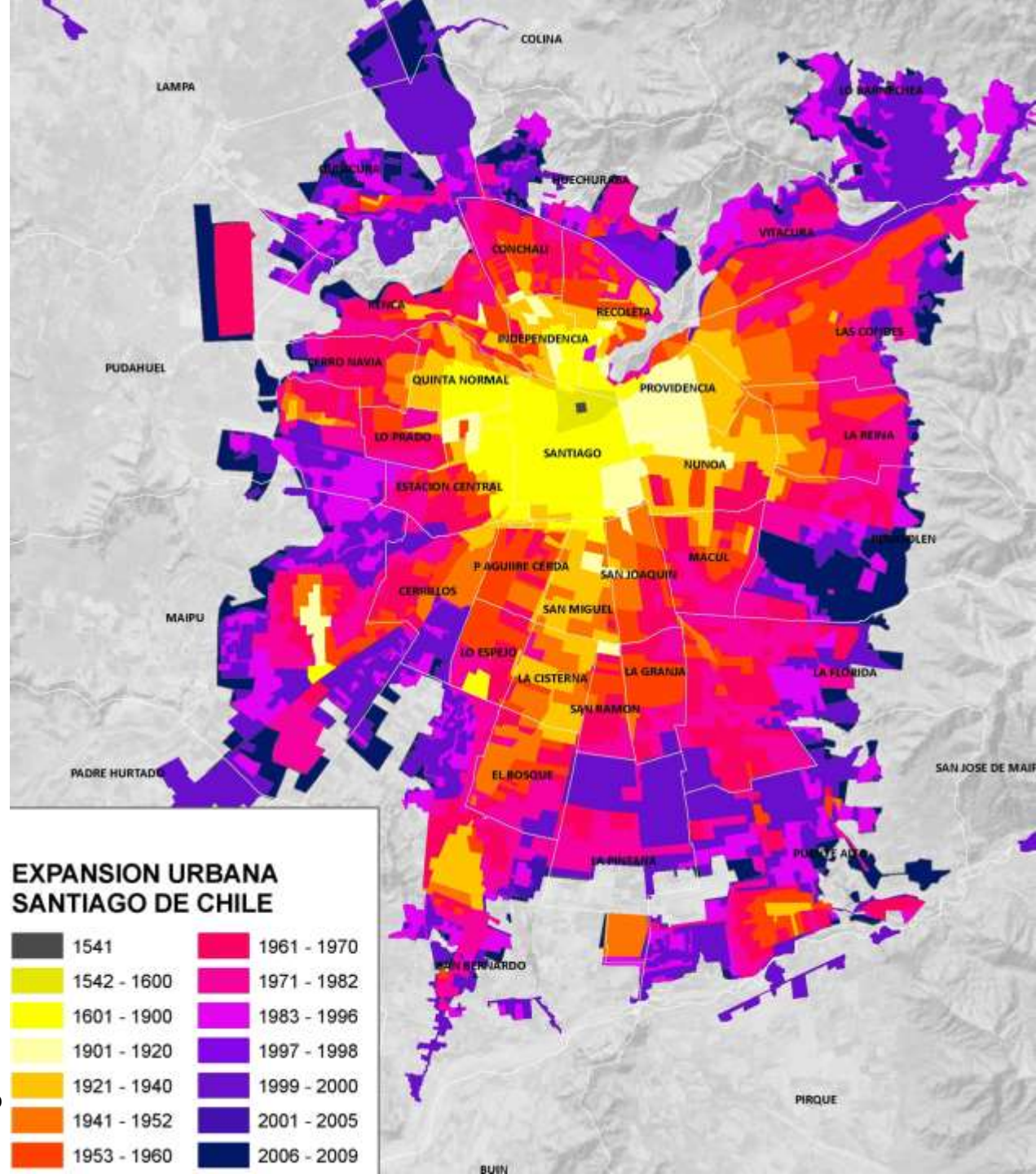
# Santiago's density pattern



Source: Felipe Livert Aquino and Xabier Gainza (2014), Understanding Density in an Uneven City, Santiago de Chile: Implications for Social and Environmental Sustainability

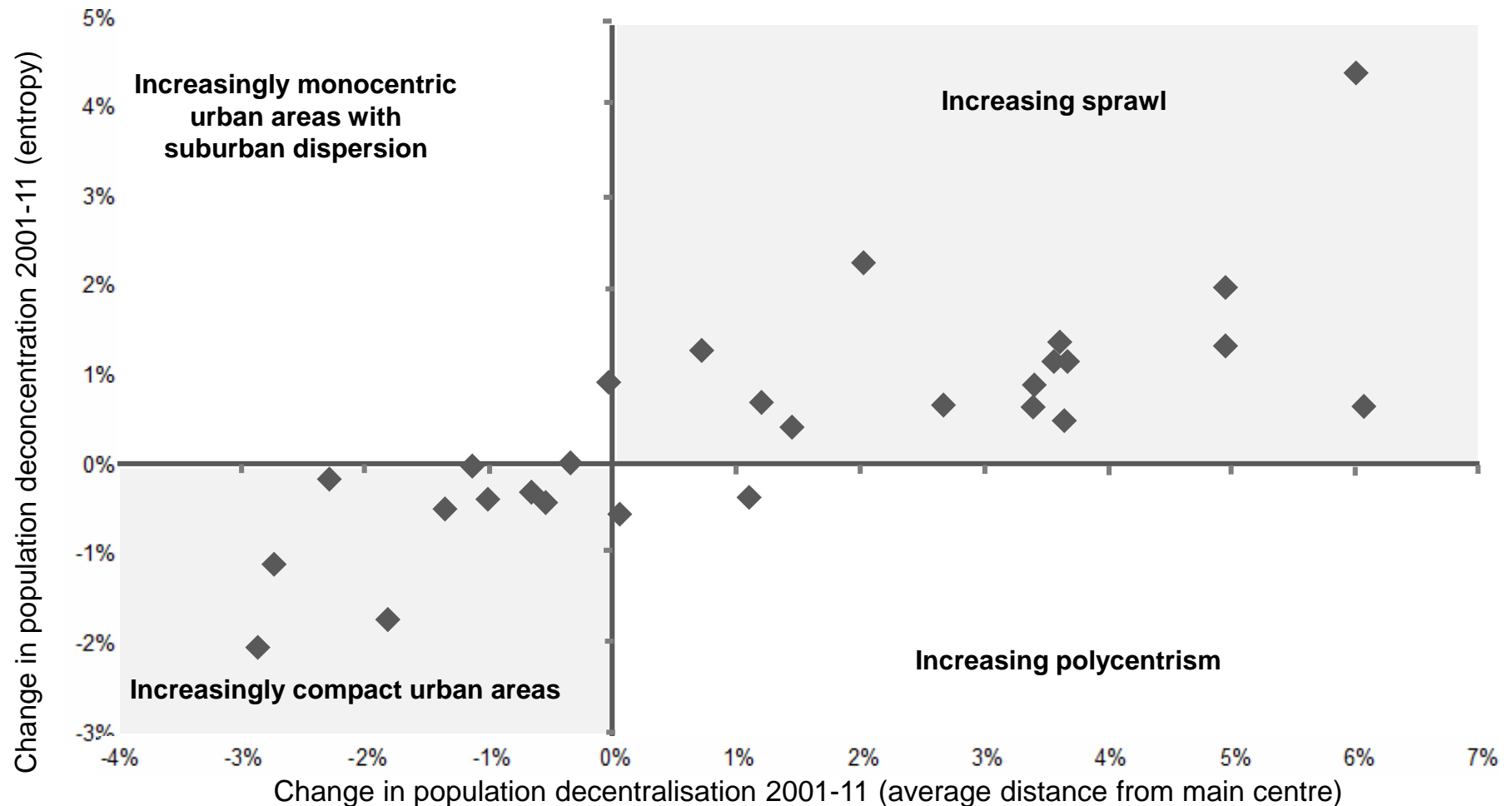
- Follows typical **mono-centric** pattern
- **Most dense districts** now in the city centre and the low-income peripheral *comunas* in South and Northwest (social housing).

- Source: El Observatorio Habitacional (OH),  
iniciativa del Ministerio de Vivienda y Urbanismo



# Sprawl models vs compact city models

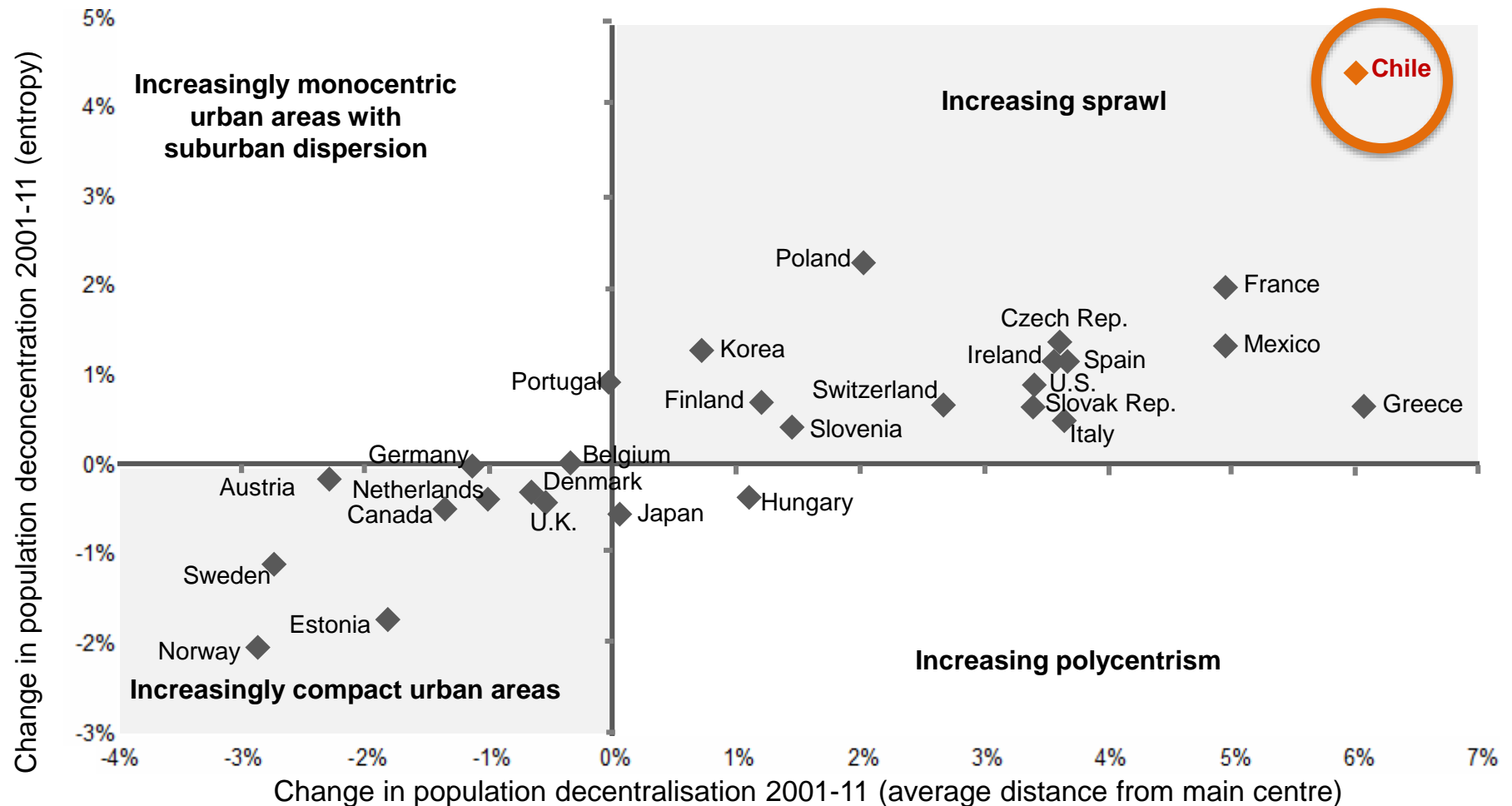
## Change in centralisation and concentration in metropolitan areas, 2001-11





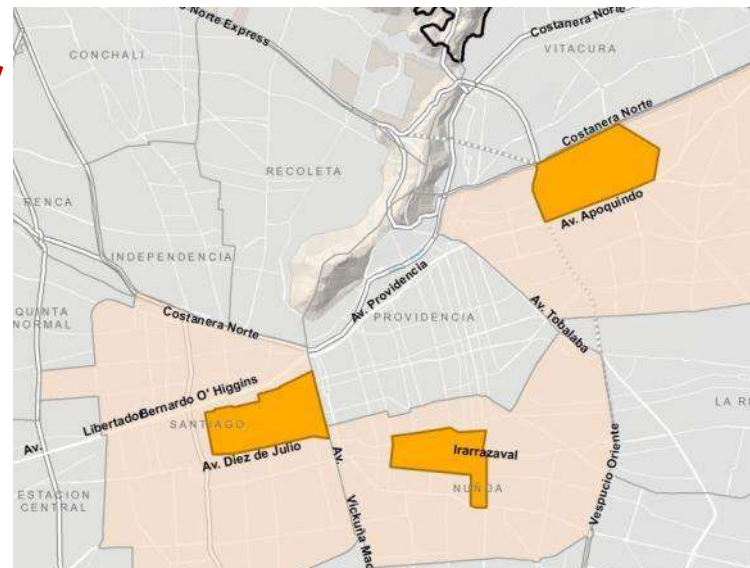
# Sprawl models vs compact city models

## Change in centralisation and concentration in metropolitan areas, 2001-11



# Recent patterns of density in Santiago

- **Re-urbanisation** in last decade in higher-income central districts: Providencia, Las Condes, Ñuñoa
- Huge demand for apartment living among young urban professionals
- Rejuvenated central neighbourhoods, attracted new commercial assets



Source: AGS (2013), ANALISIS DE LA CONSTRUCCIÓN DE TORRES DE DEPARTAMENTOS EN LAS TRES COMUNAS CON MAYOR VOLUMEN DE VENTAS

# Barriers to good density in Santiago

Lack of metropolitan governance and lack of urban densification tools and incentive structures:

- Failed **Metropolitan growth boundaries** and **Weak Metropolitan Planning**
- Lack of combined **transport/land-use planning**: Public transport share has fallen
- Social housing moving further out = **lack of access** to jobs, social infra
- Limited use of **tools and incentives** to shape the re-urbanisation process and high fiscal disparities between wealthy and poor comunas
- Absence of **urban regeneration entities** with power to undertake more decisive urban land re-use.
- Lack of rigorous **urban design** to ensure towers fit district aesthetic
- Densification has only been **a priority in a few neighbourhoods**, not across whole metropolitan space, not a **coordinated regional approach**.

# Metropolis Off or On ?

Metropolis Off

Metropolis On

Madrid 

 Barcelona

Vienna 

 Zurich

Milan 

 Turin

Berlin 

 **Stockholm**

Atlanta 

 Miami

Bogota 

 Amsterdam

Toronto 

 Vancouver

Sydney 

 Melbourne

# Comparing the options

Sectoral policies lead



Integrated regional planning

Autonomous bodies



Cross cutting objectives

Hierarchical system



Networked governance

Metropolis Off



Spatial variation



Spatial cohesion

Metropolis On



Low co-ordination



High co-ordination projects

Tax and transfer payments



Financial innovation and leverage

# Santiago's next cycle of density?

- **2<sup>nd</sup> cycle** of densification: infrastructure investment and metropolitan planning is the key
  - Independencia, catalysed by Line 3 metro line completion in 2017
  - Quinta Normal, enabled by connections on Line 5
  - Estación Central, because of proximity to downtown
- Social drivers: growing preference to trade off private space for proximity to public amenity and shift to innovation economy and shared city
- **Regional Government** with strategic planning powers.
- Set clear **growth boundary** aligned with regional government.
- New **urban regeneration** and **intensification** effort.
- **Fiscal structure** than support a common metropolitan area.
- **Smart city** innovations to optimise systems and space



# Perspectives on density in Chile

“Densification is healthy and generates fewer negative externalities. But we are concerned that communities already established in the most central districts are opposed to this measure, forcing future generations to live in places further away with all the problems that entails.”

**Ariel Magendzo**, general manager of Paz Corp

“Densification does not necessarily mean buildings 26 stories high. It can be perfectly constructed buildings of five, six and even eight floors.”

**Gustavo Vicuna**, general manager of Claro Vicuna Valenzuela

“You cannot think that a city grows only by densification. Densification, expansion and urban renewal are all mechanisms that must be used. We should provide an outlet for people who want to live in larger spaces, which generally requires that the city extends.”

**Javier Hurtado**, Chilean Chamber of Construction (CCHC)



# London

Fundamentals		Execution		Momentum		
Leadership and Vision		Tactics		Multi-cycle approaches		
Plan	+	Scale	+	Demand	=	Progress on Densification
Branding		Financing, legal and land-use tools		Positive psychology		

Established

Emerging

Not yet visible

Fundamentals		Execution		Momentum		
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# Birmingham

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Established

Emerging

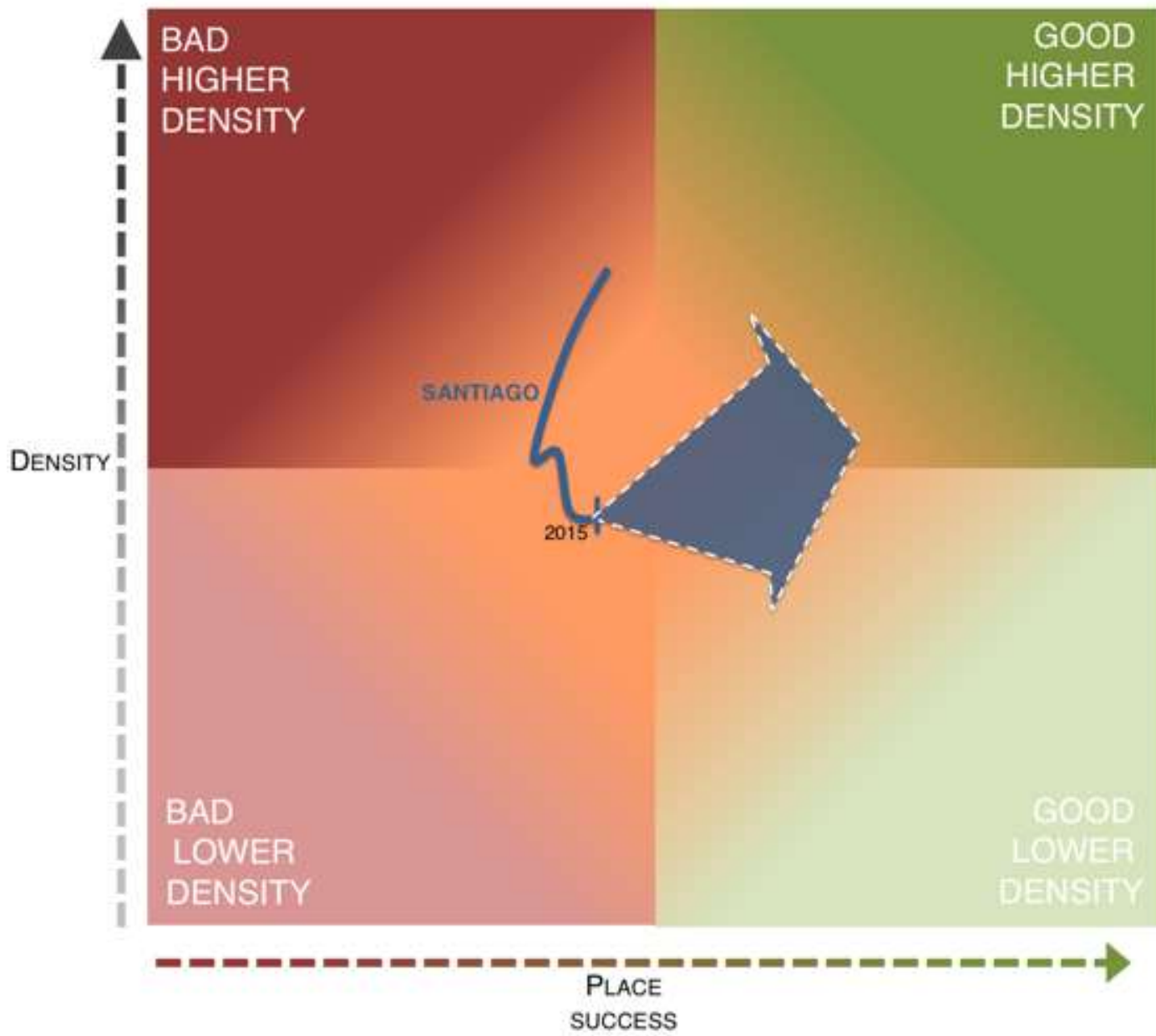
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# Dresden

# Santiago's density equation?

Fundamentals		Execution		Momentum		
Leadership and Vision		Tactics		Multi-cycle approaches		
Plan	+	Scale	+	Demand	=	Progress on Densification
Branding		Financing, legal and land-use tools		Positive psychology		

Established
Emerging
Not yet visible



# Santiago at a crossroads?

Scope for a new infrastructure and density equation, coupled with regional governance, urban renewal, and polycentric development, that supports shared city, innovation economy, and smart future.

OR

Risk of continue urban sprawl that produces fragmented city with increased externalities, higher inequality, lower productivity, pockets of innovation, and a further cycle of lock in to old land use models with increasing segregation and the middle income trap

Thank you

Muchas Gracias