

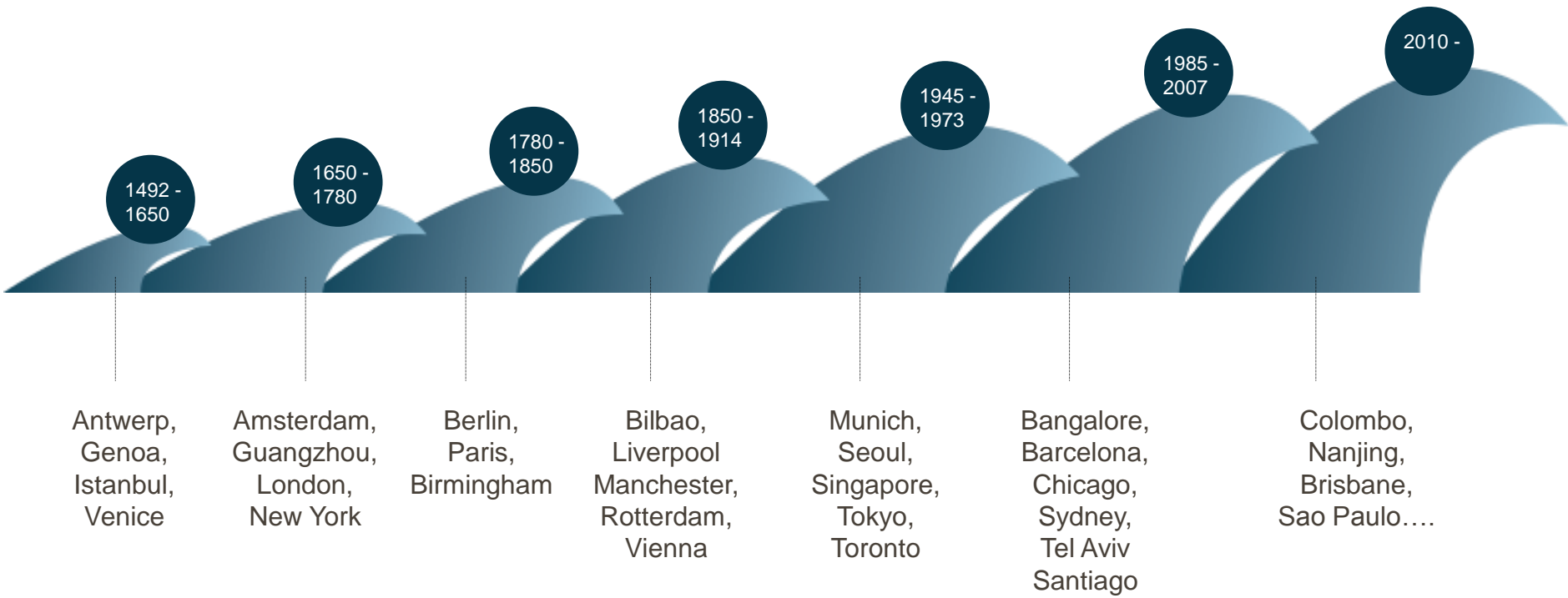
Santiago: A Density Dividend?

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

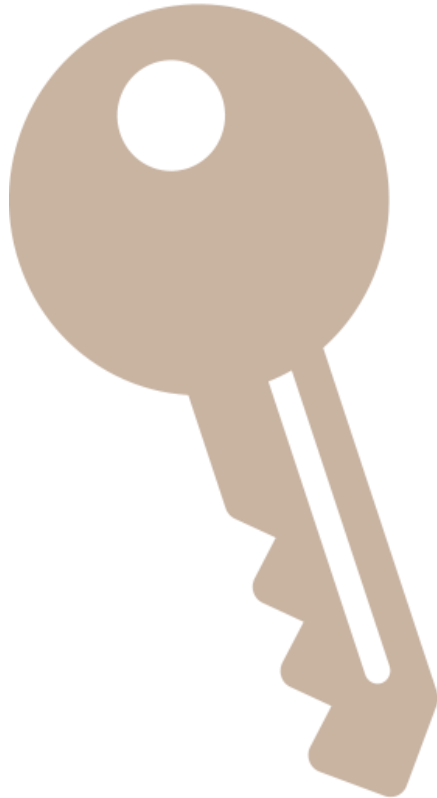


Big Data

- 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)

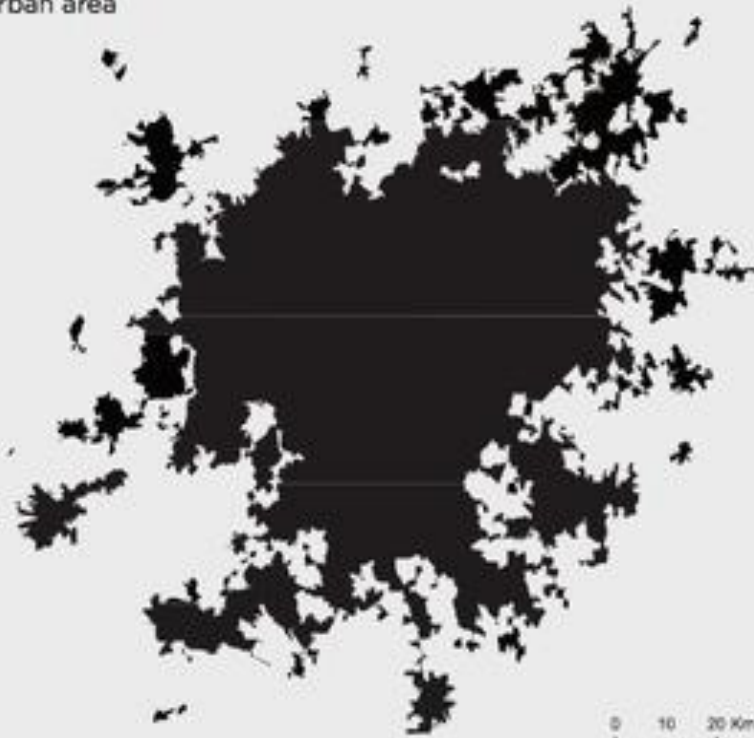


3. Densify Existing Cities

Comparative Densities of similar populations

ATLANTA

Urban area



Population	Urban area	Transport carbon emissions p.c
5.3 million	7,692 km ²	6.9 tonnes

BARCELONA

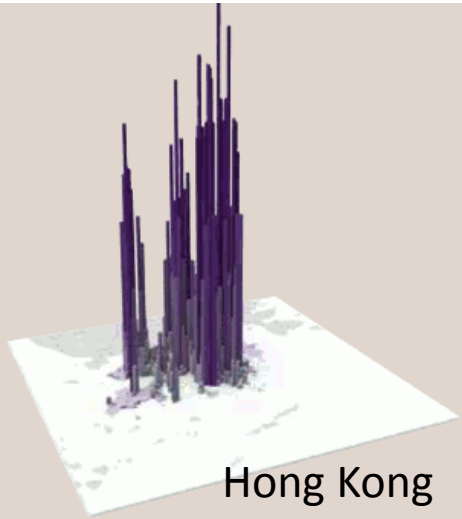
Urban area



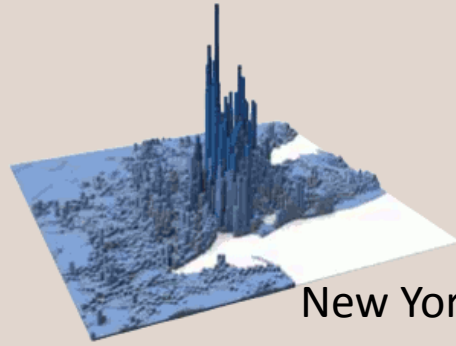
Population	Urban area	Transport carbon emissions p.c
5 million	648 km ²	1.16 tonnes

Source: LSE Cities 2014

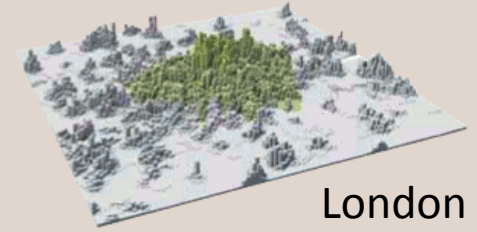
More compact development can reduce transport emissions by an order of magnitude.



Hong Kong



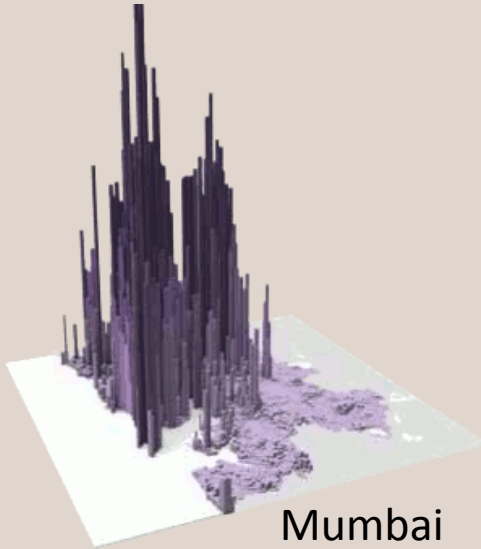
New York



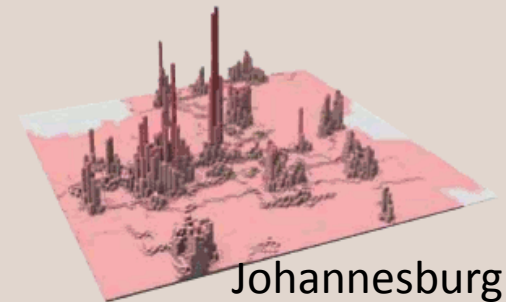
London



Istanbul



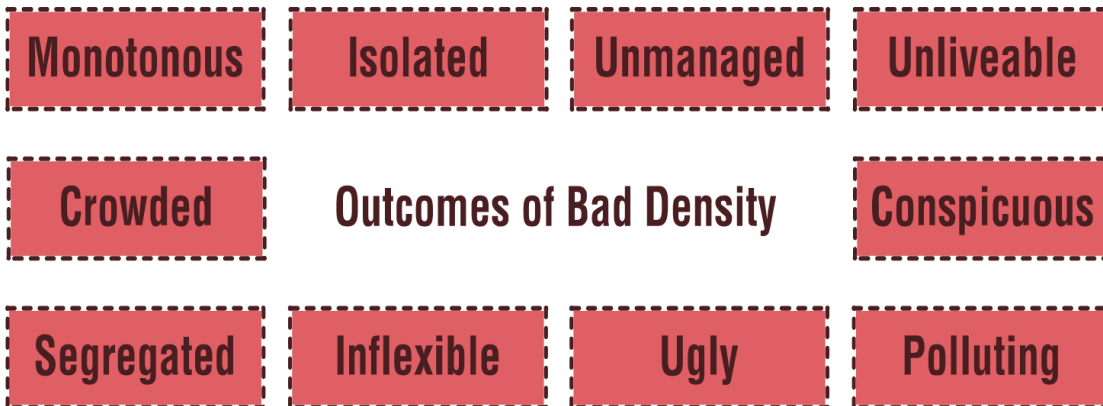
Mumbai



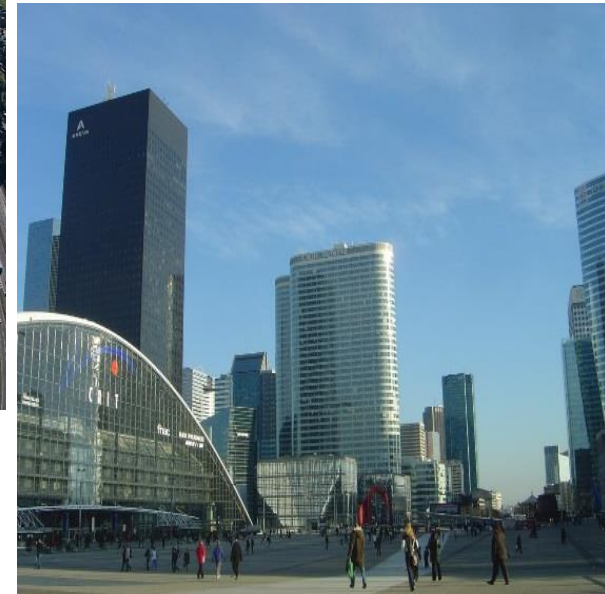
Johannesburg

Source: LSE Cities 2012

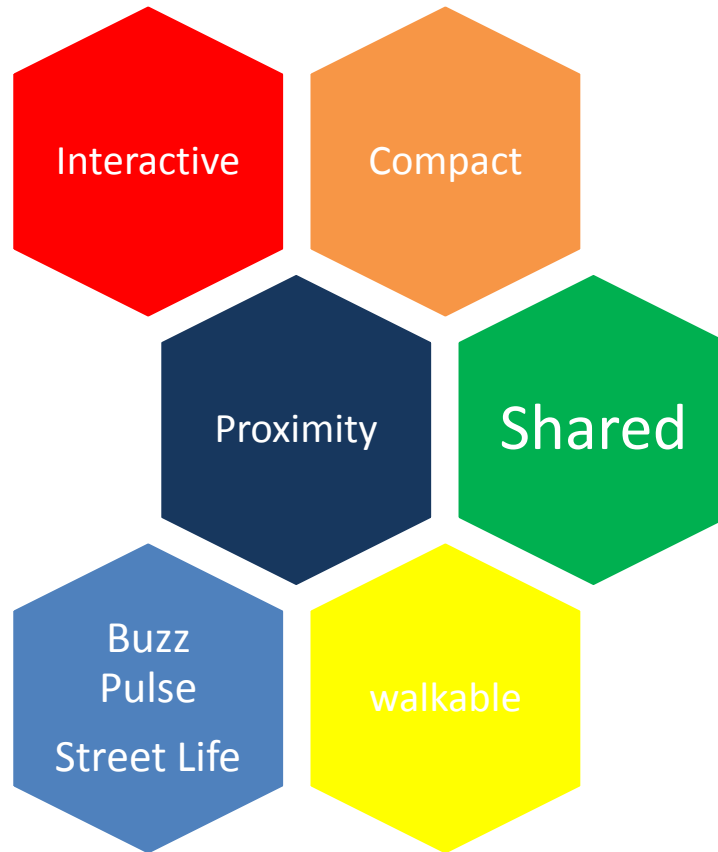
Differentiating good density from bad density



Doomed Density: memories, myths, and mixed feelings



What do we like about Density?



Density means different things to different people

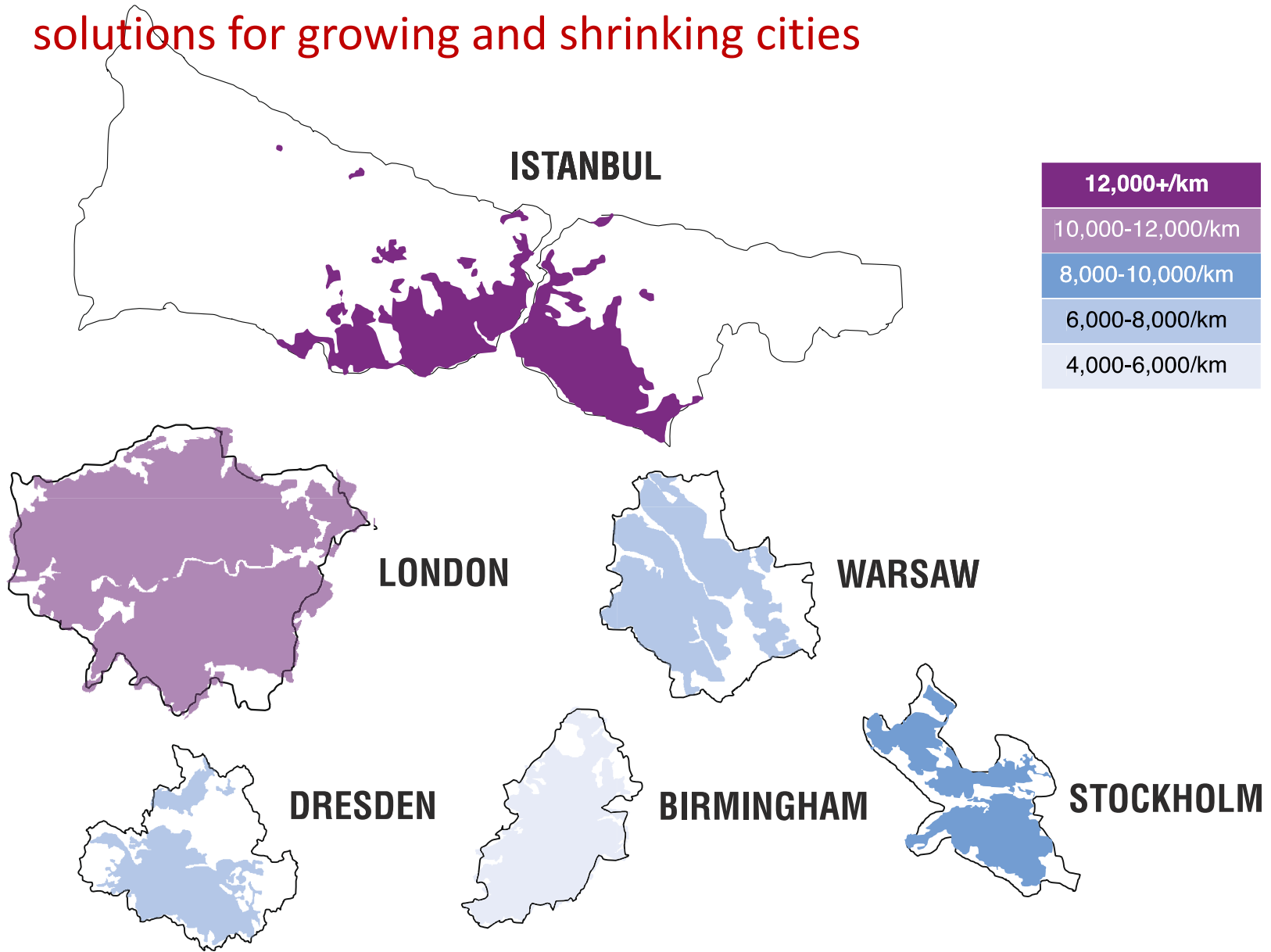
Three big challenges: unintended consequences

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



The Density Dividend:

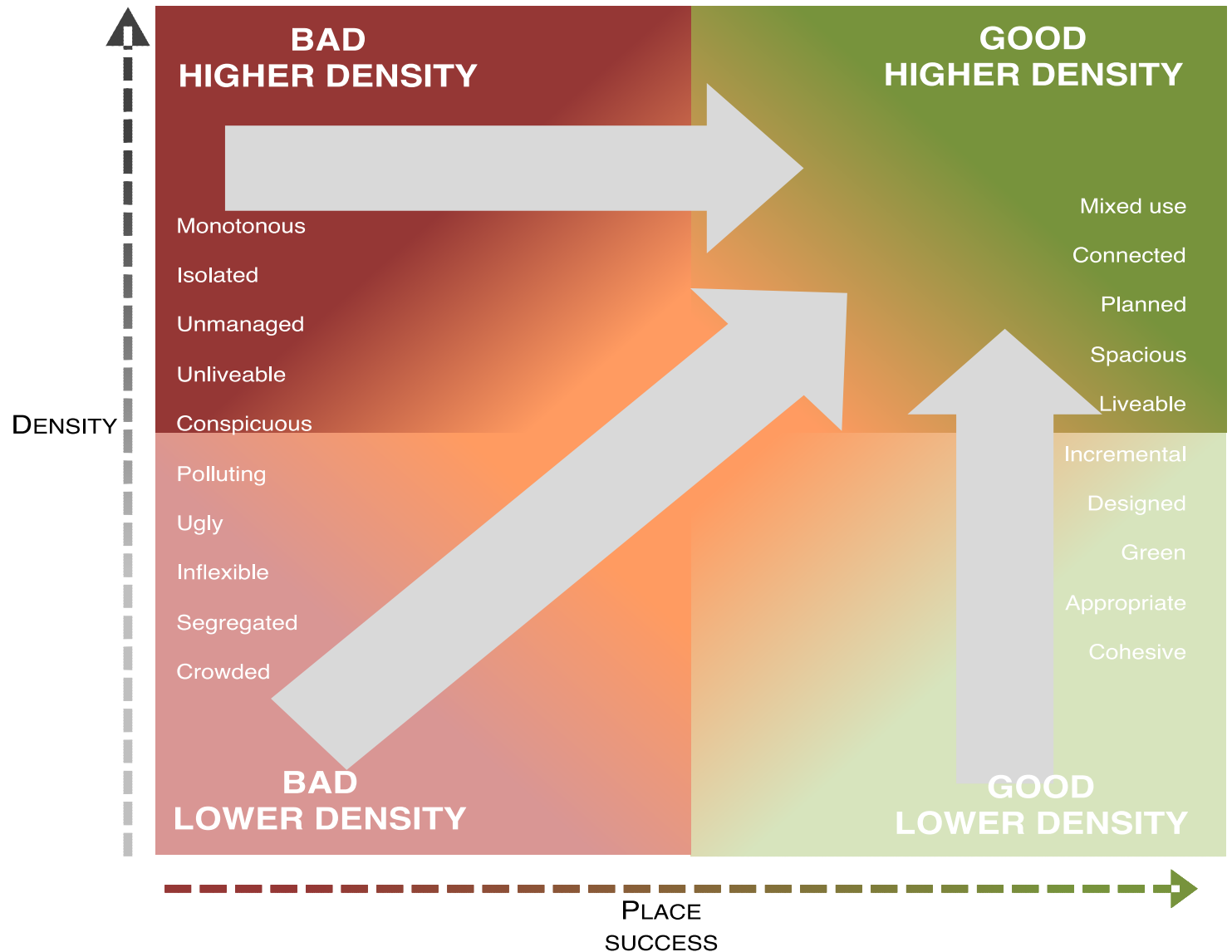
solutions for growing and shrinking cities



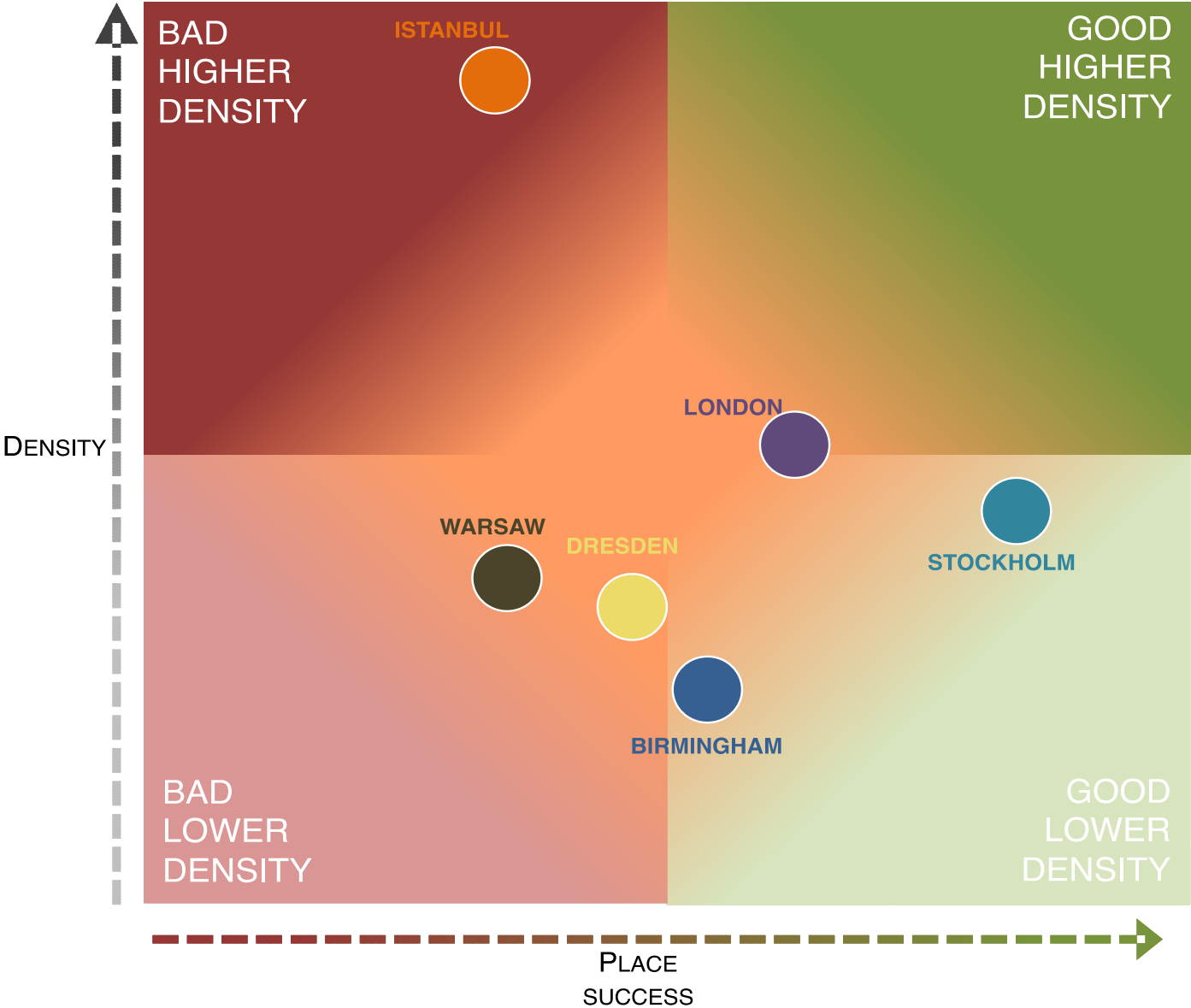
Different cycles and paths for cities



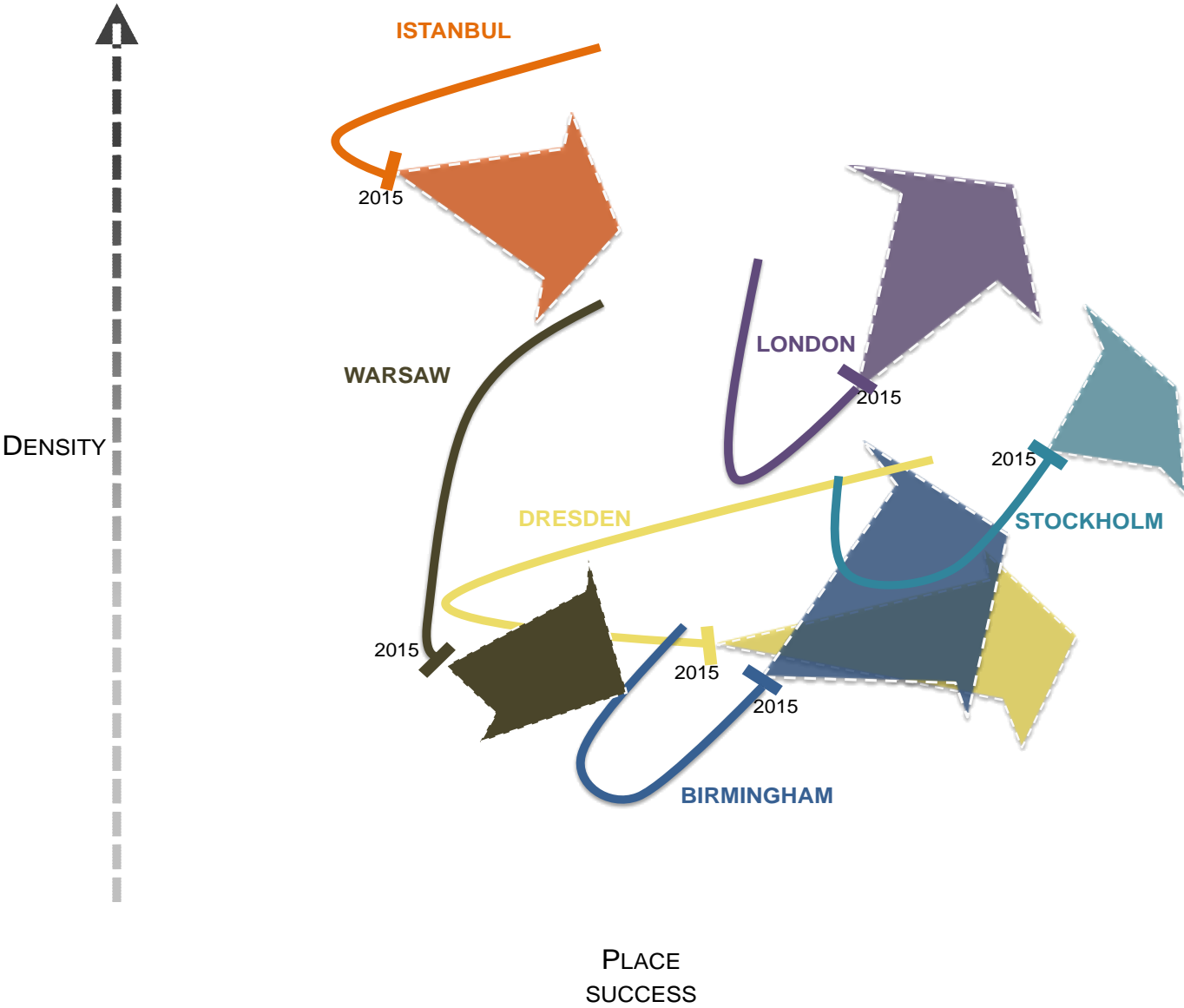
The journey to good density



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

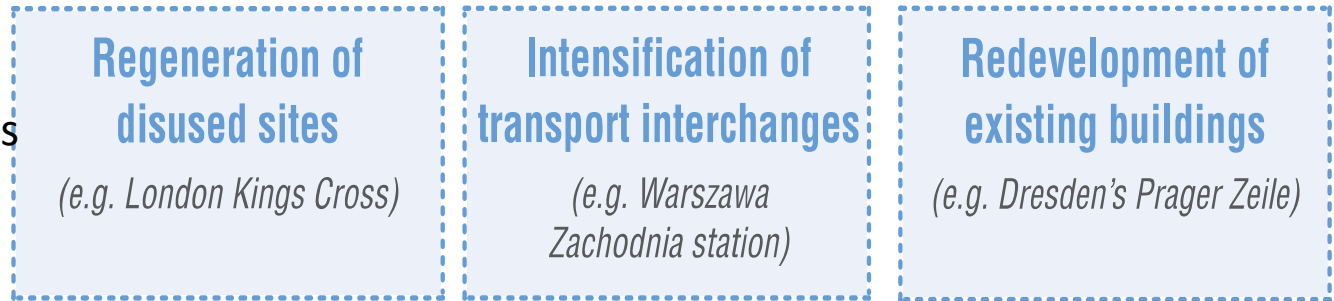
Who's leading?

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



Tactics of Density

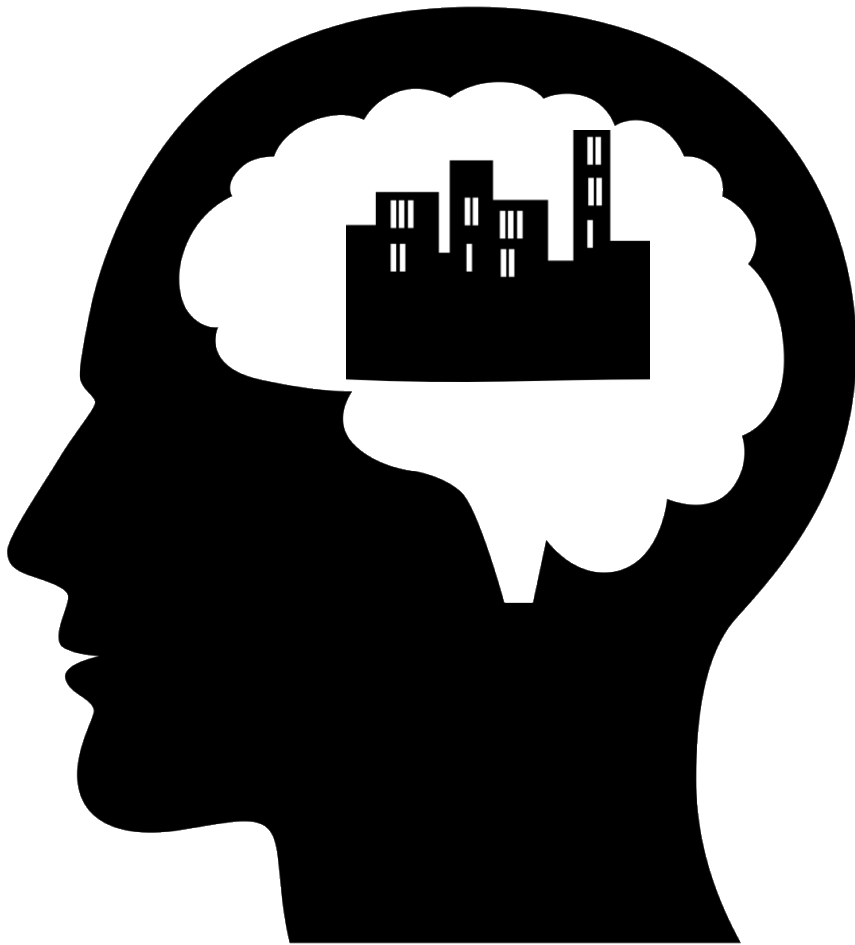
- Right mix of locations
- Sequenced and integrated projects
- Quick wins
- Regional collaboration
- Re-imagining the suburbs



Different sites for densification



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

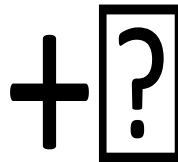
Momentum

Leadership and vision

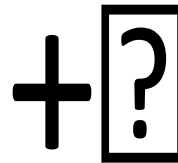
Tactics

Multi-cycle approaches

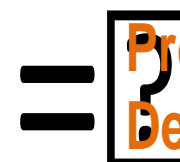
Plan



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	= Progress on Densification
Plan	+	Scale	+	Demand	
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
Not yet visible

Dresden

What about Santiago?



Global Cities 2015:
The Race Accelerates

**The World City
Business Brand
Barometer**

Cities of opportunity

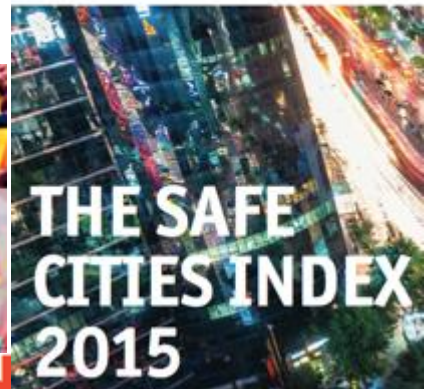
**Global
Power City
Index 2015**



**The Global
Financial C
Index 17**



IESE
Cities in
Motion Index



2015
**SUSTAINABLE
CITIES INDEX 2015**

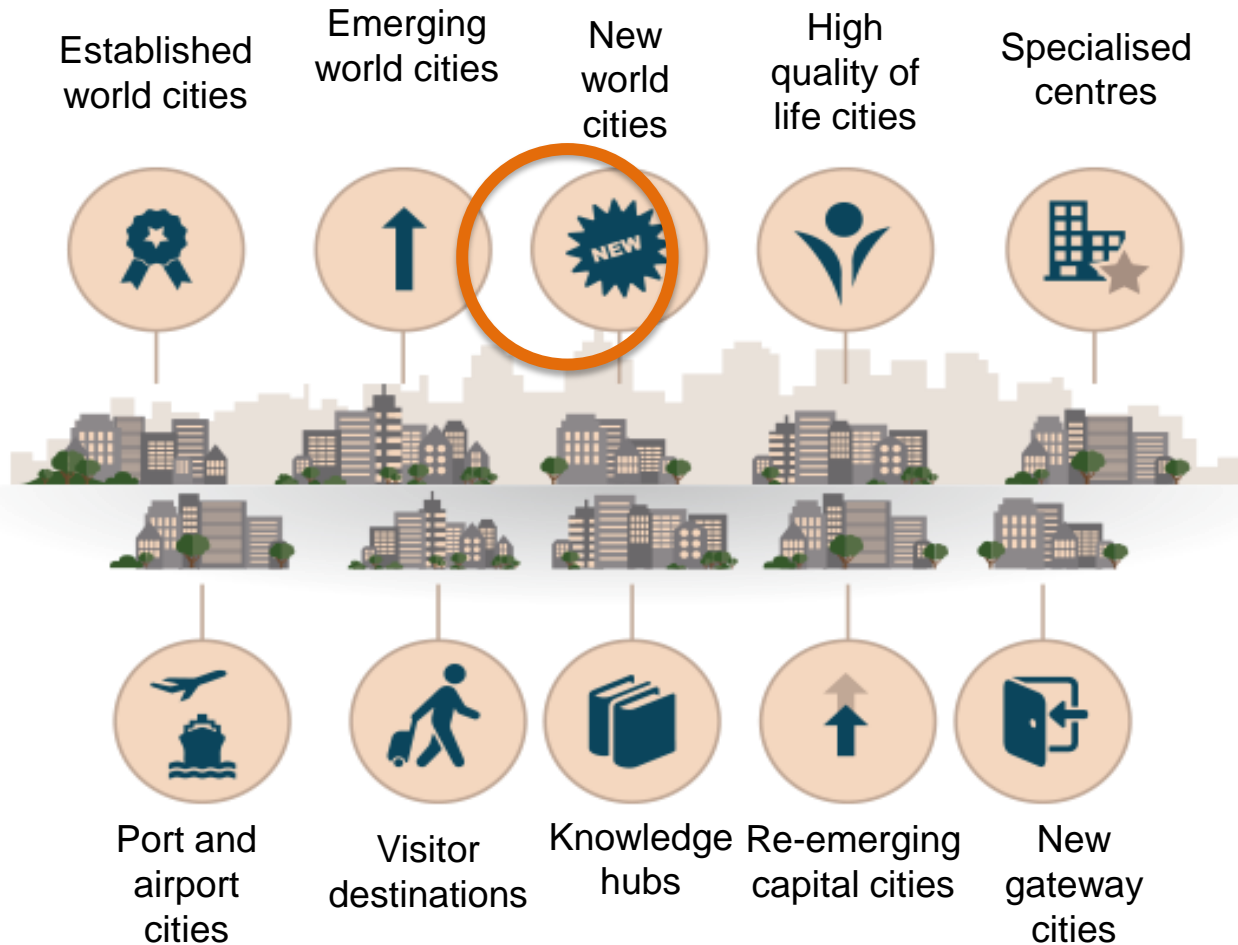


MasterCard
2015 Global Destination City: *City Momentum Index*

TORONTO AS A GLOBAL CITY:
Scorecard on Prosperity – 2015



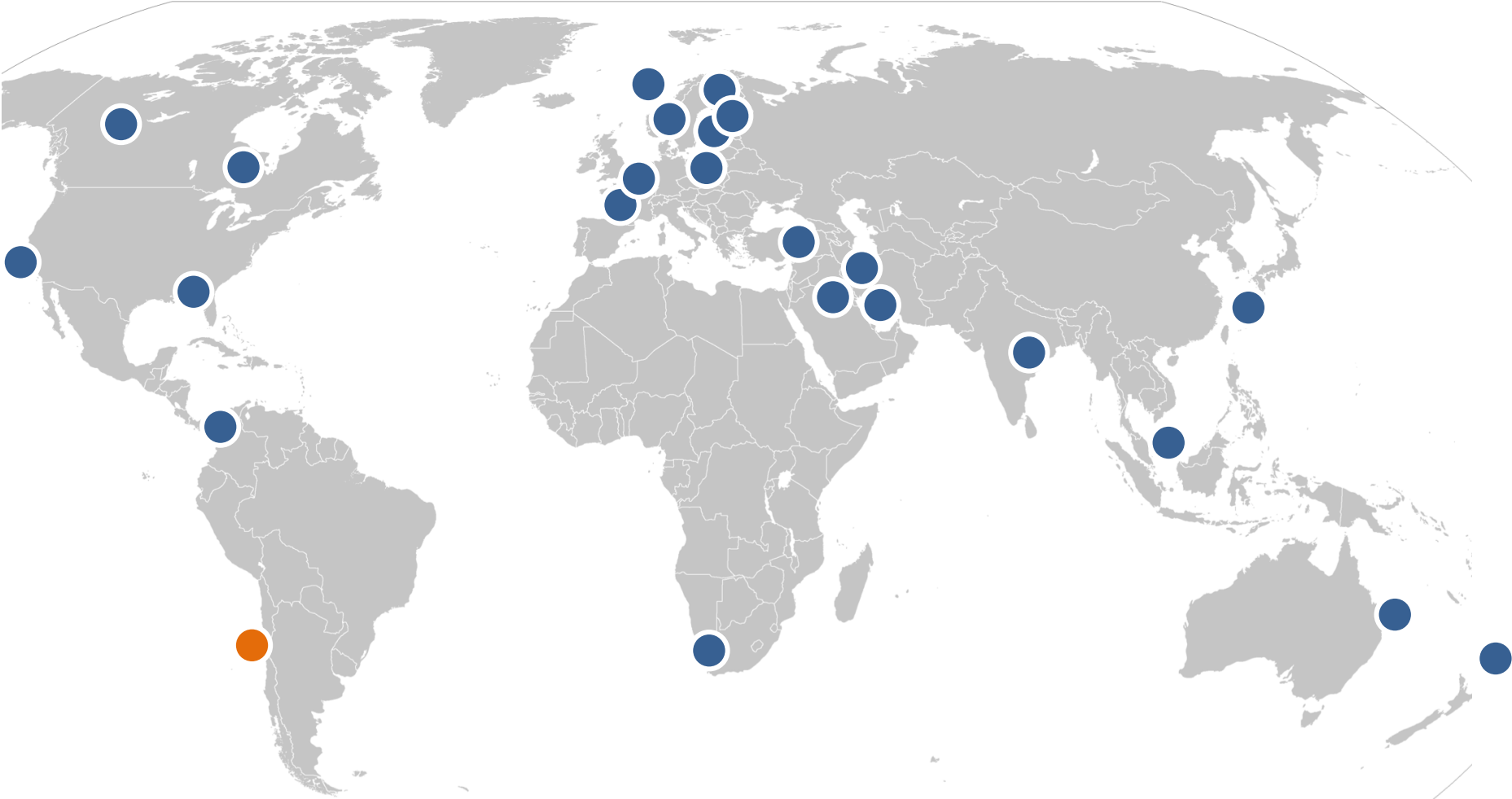
Different Types of Globalising Cities



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)

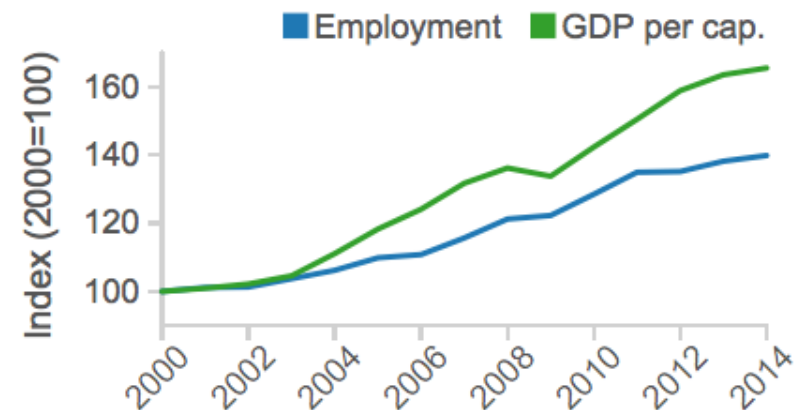
Top 25% of fastest growing cities since 2000 (Brookings)

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

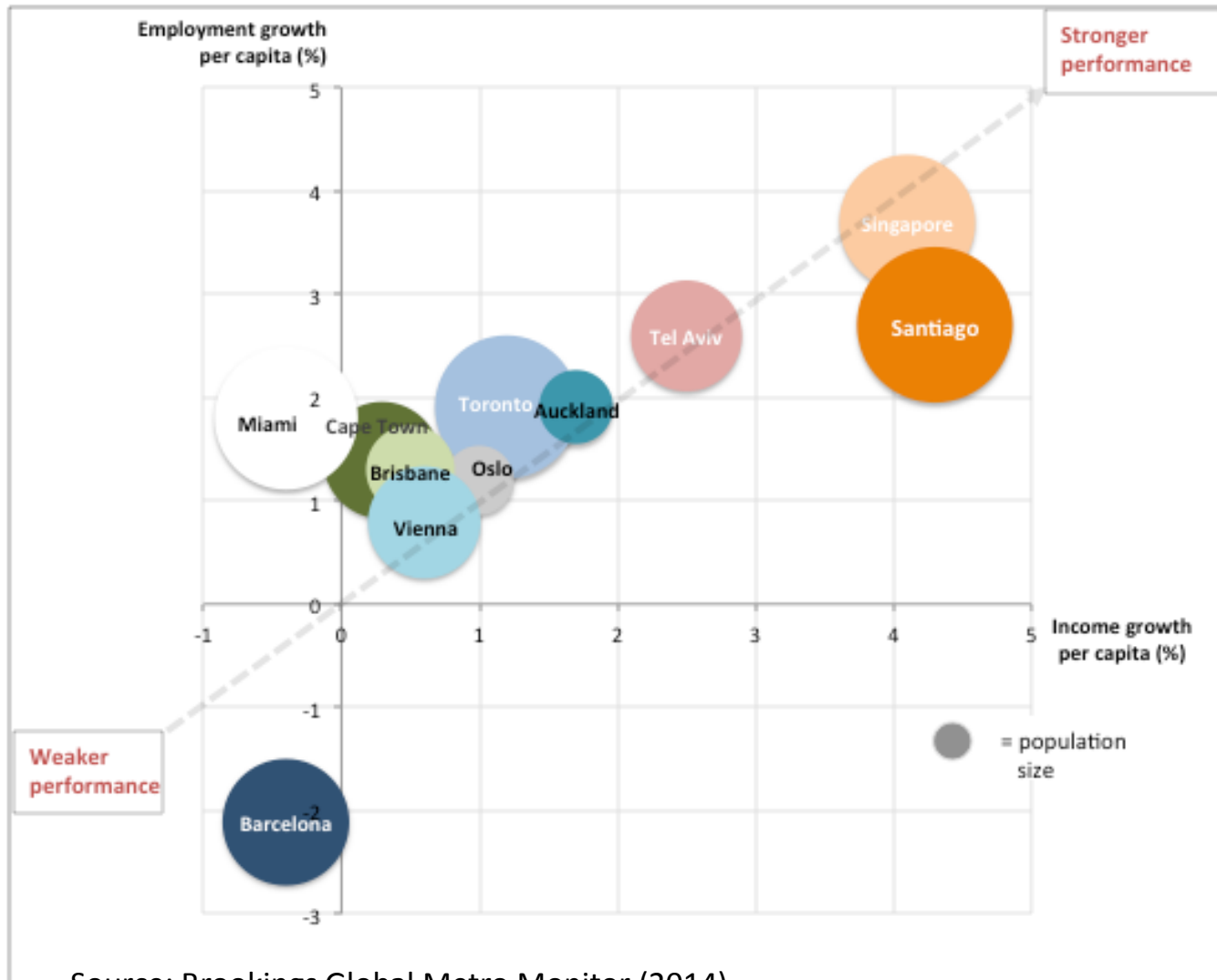
Santiago: A competitive New World City

	GDP /\$bn	GDP per capita/ \$'000
Singapore	366	67
Toronto	276	46
Miami	263	44
Vienna	184	49
Santiago	171	24
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
Santiago	49	+8
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

Source: Brookings Global Metro Monitor (2014)

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)

- **1st 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
Santiago	32	62	49	33
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?

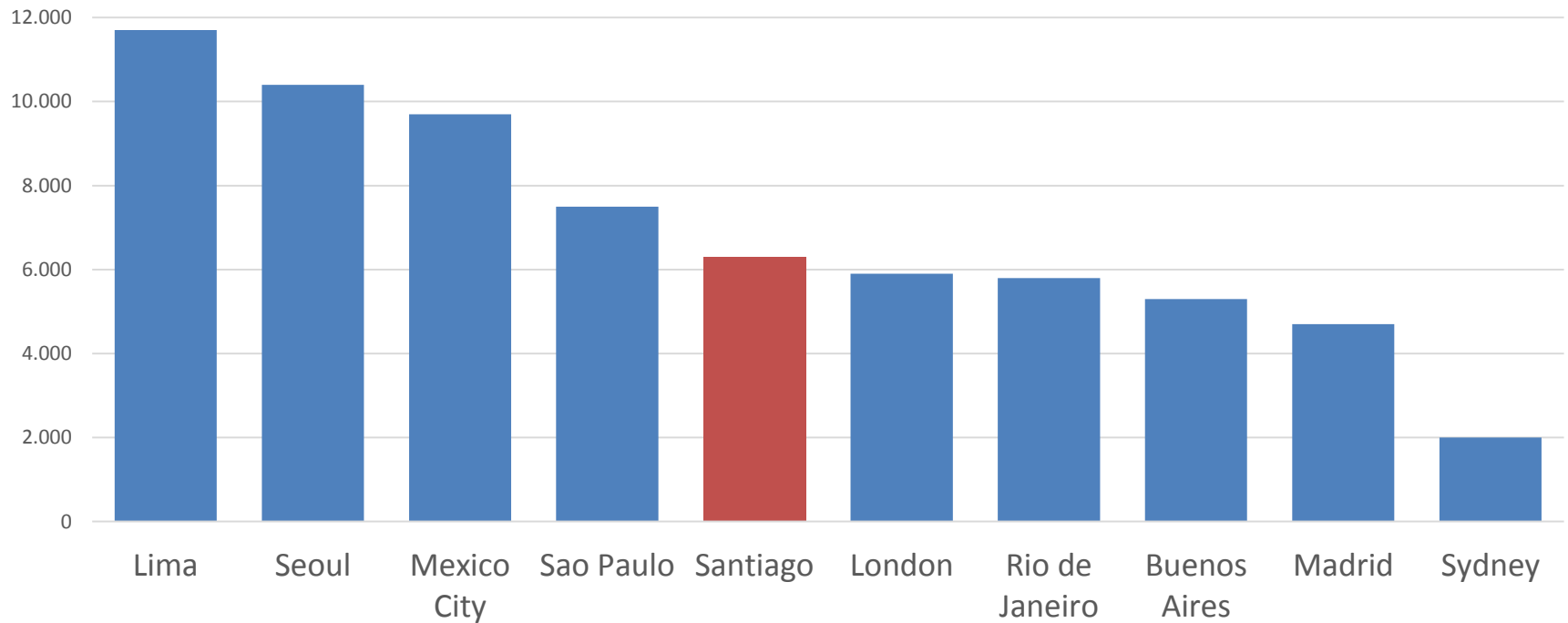
Lack of visibility in global markets is an opportunity?

What is the Santiago strategy for the next 5 years?

How do Santiago and Chile work together?

Santiago is a medium-density city

Density of international cities by built-up area



Source: Demographia (2015), World Urban Areas

But be careful when measuring density!

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

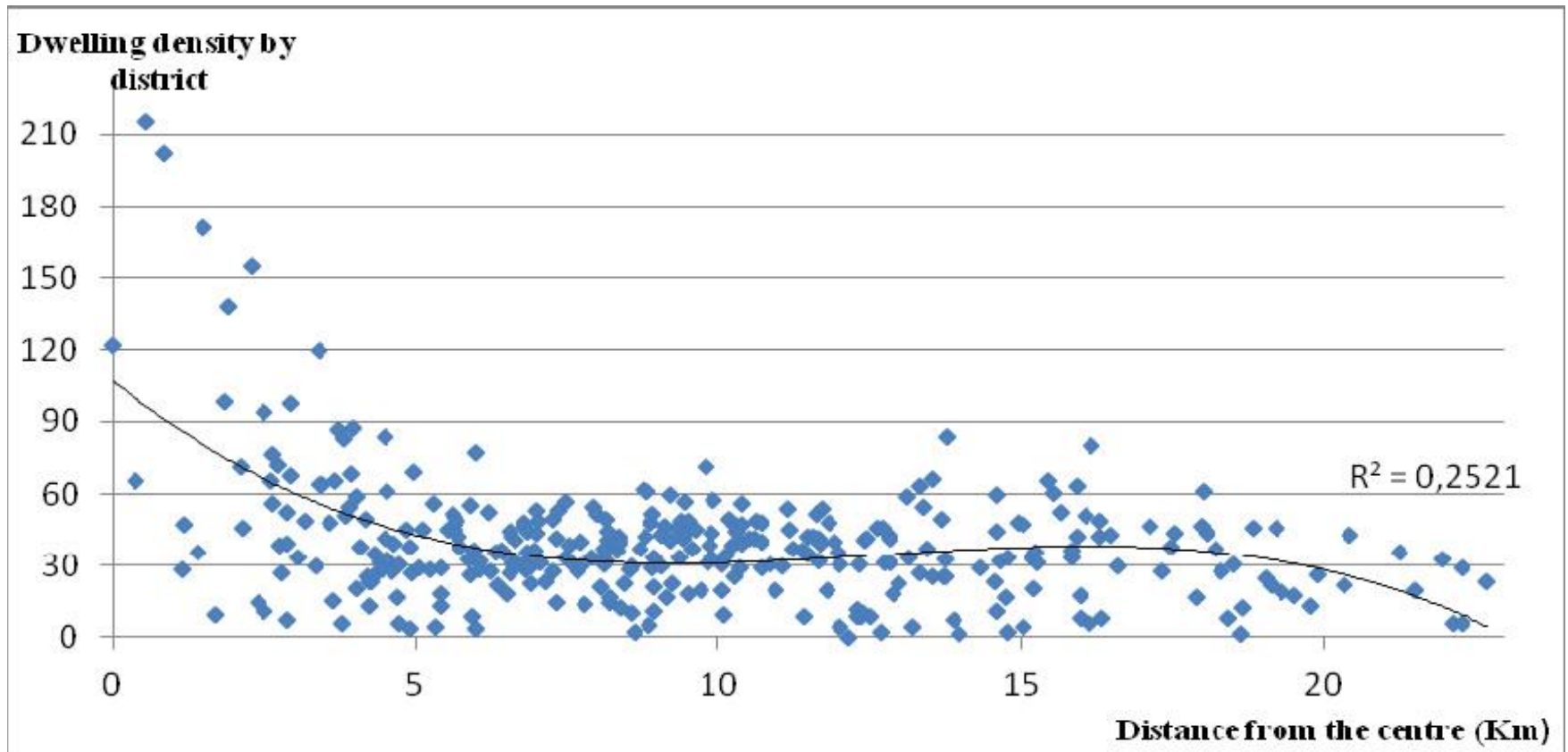
A problem of sprawl and low metropolitan regional co-ordination

Combined with **high demand by a growing population**

Hence a need for **both densification and metropolitan management**

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

Santiago's density pattern

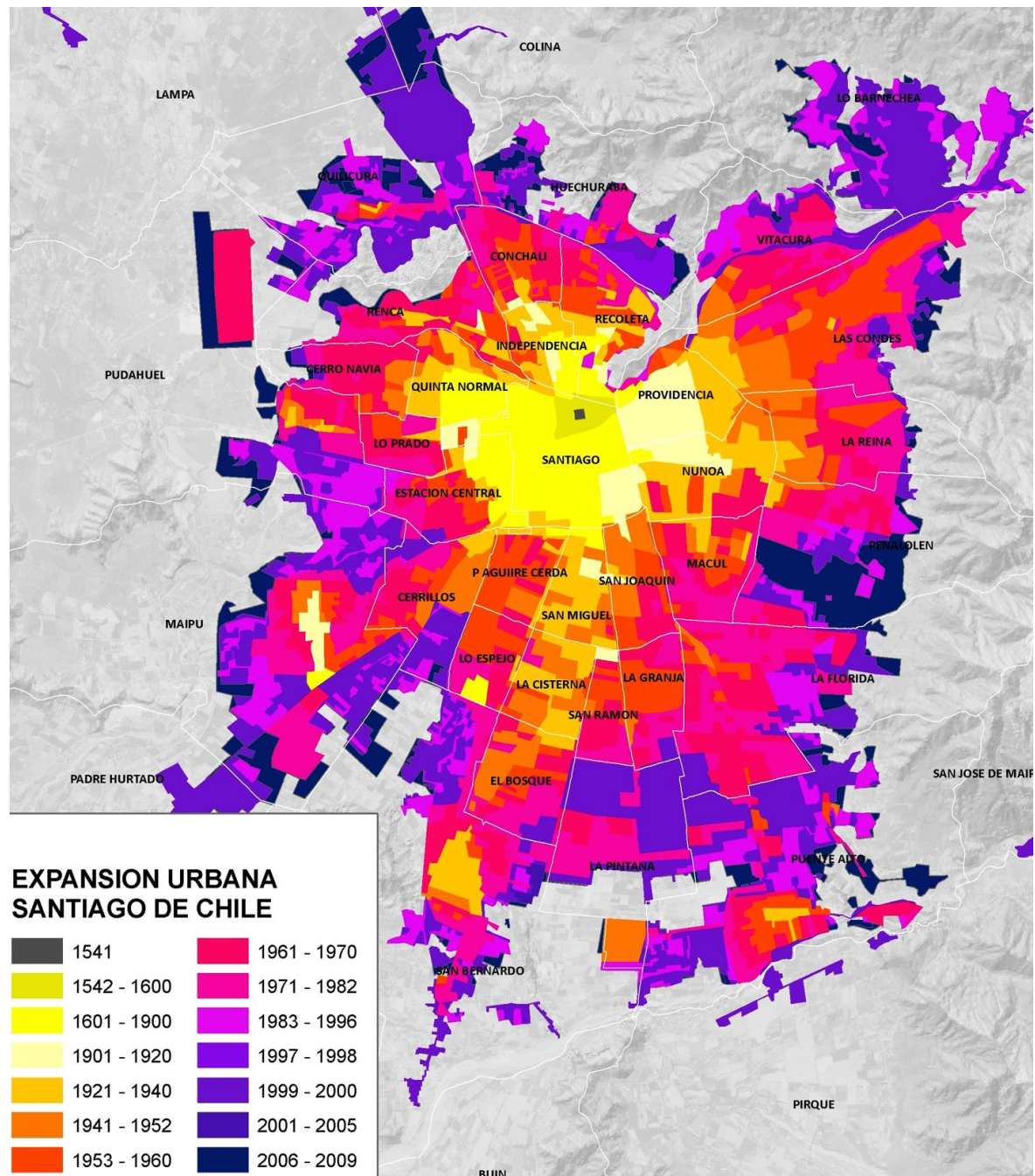


Source: Felipe Livert Aquino and Xabier Gainza (2014), Understanding Density in an Uneven City, Santiago de Chile: Implications for Social and Environmental Sustainability

- 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).

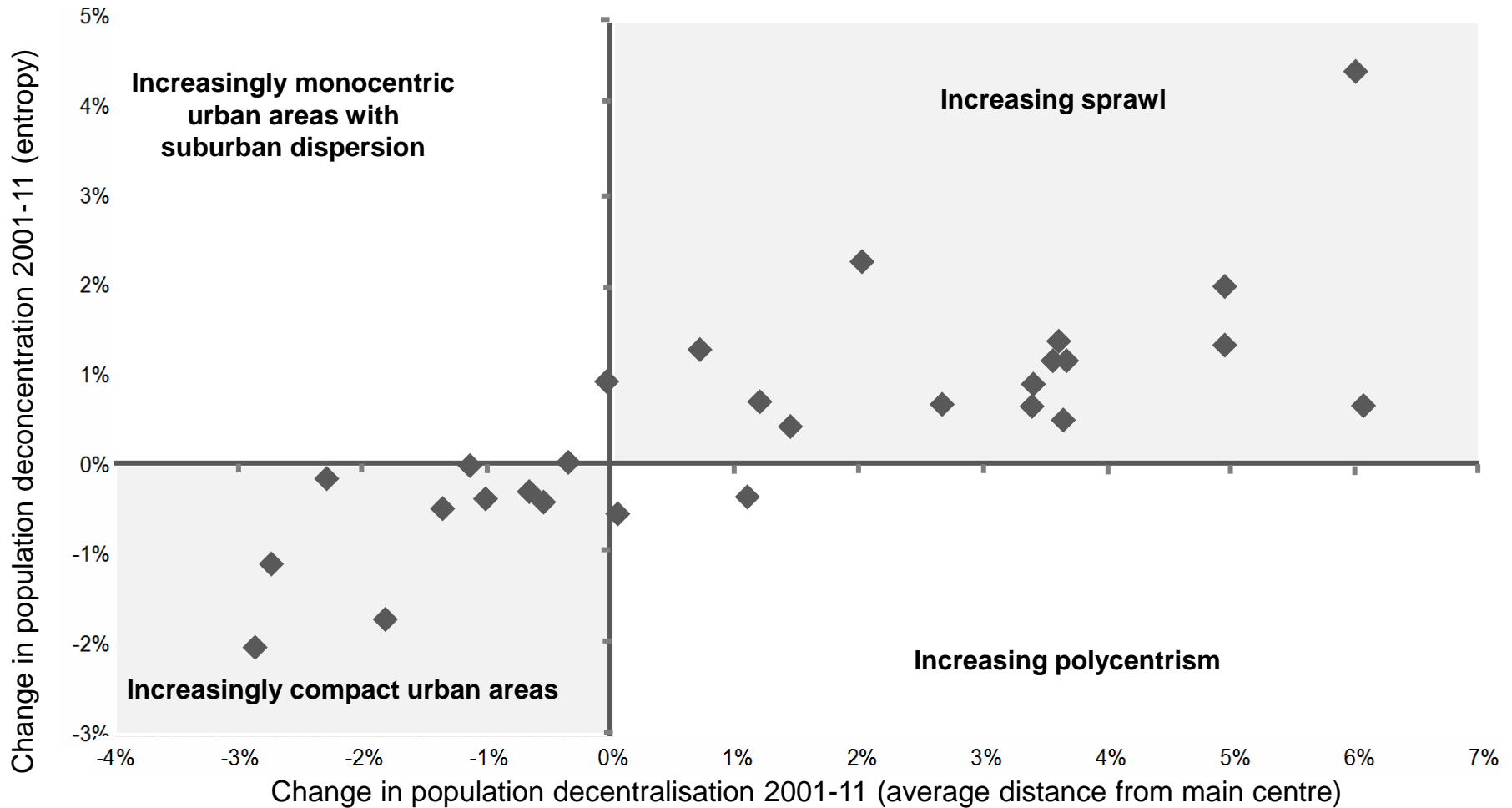
- Rapid outward expansion between 1980-1995
- 1994 Santiago Metropolitan Regulatory Plan (SMRP) tried to curb expansion at 600km²
- But modified and extended in 1997, effectively stopping densification process
- Further extensions agreed in 2003 and 2013
- **Stalled densification and sprawled metro region**

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



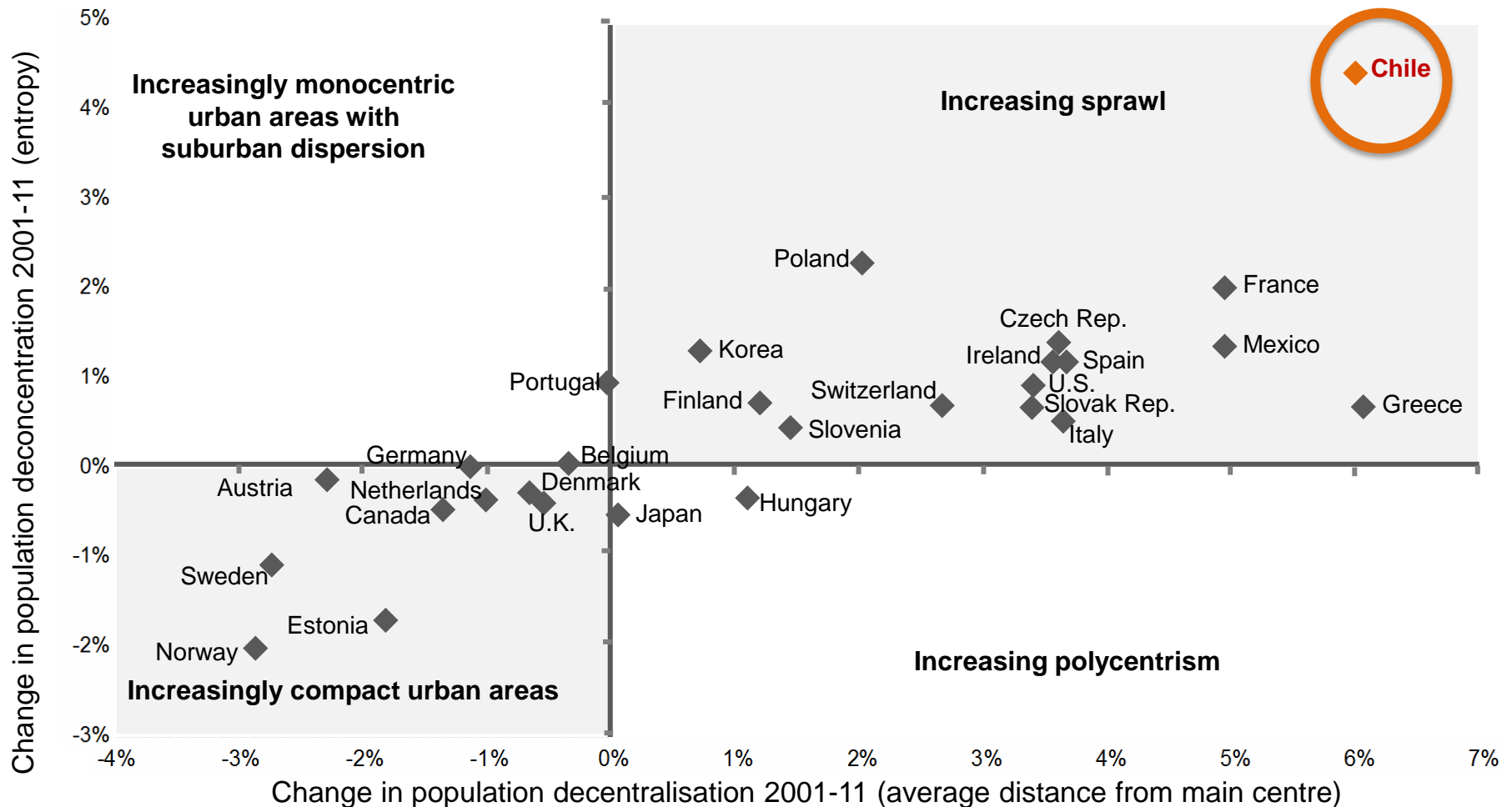
Sprawl models vs compact city models

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



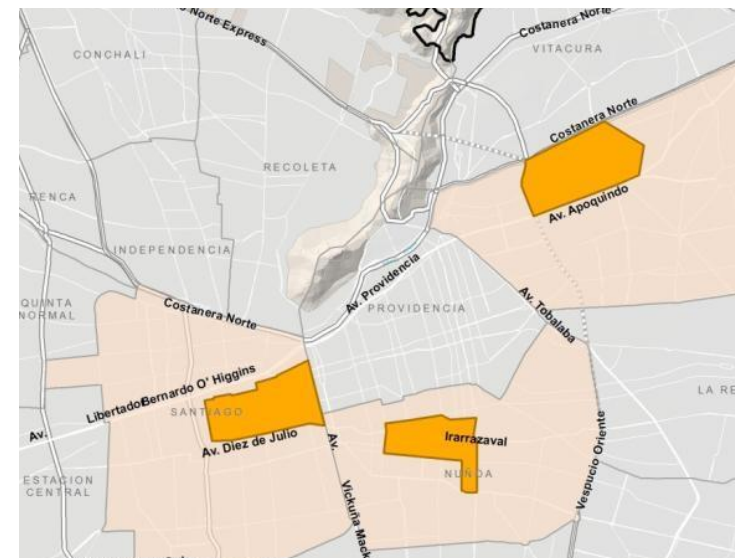
Sprawl models vs compact city models

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?

- **2nd 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	= Progress on Densification
Plan	+	Scale	+	Demand	
Branding		Financing, legal and land-use tools		Positive psychology	

Established
Emerging
Not yet visible

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Birmingham

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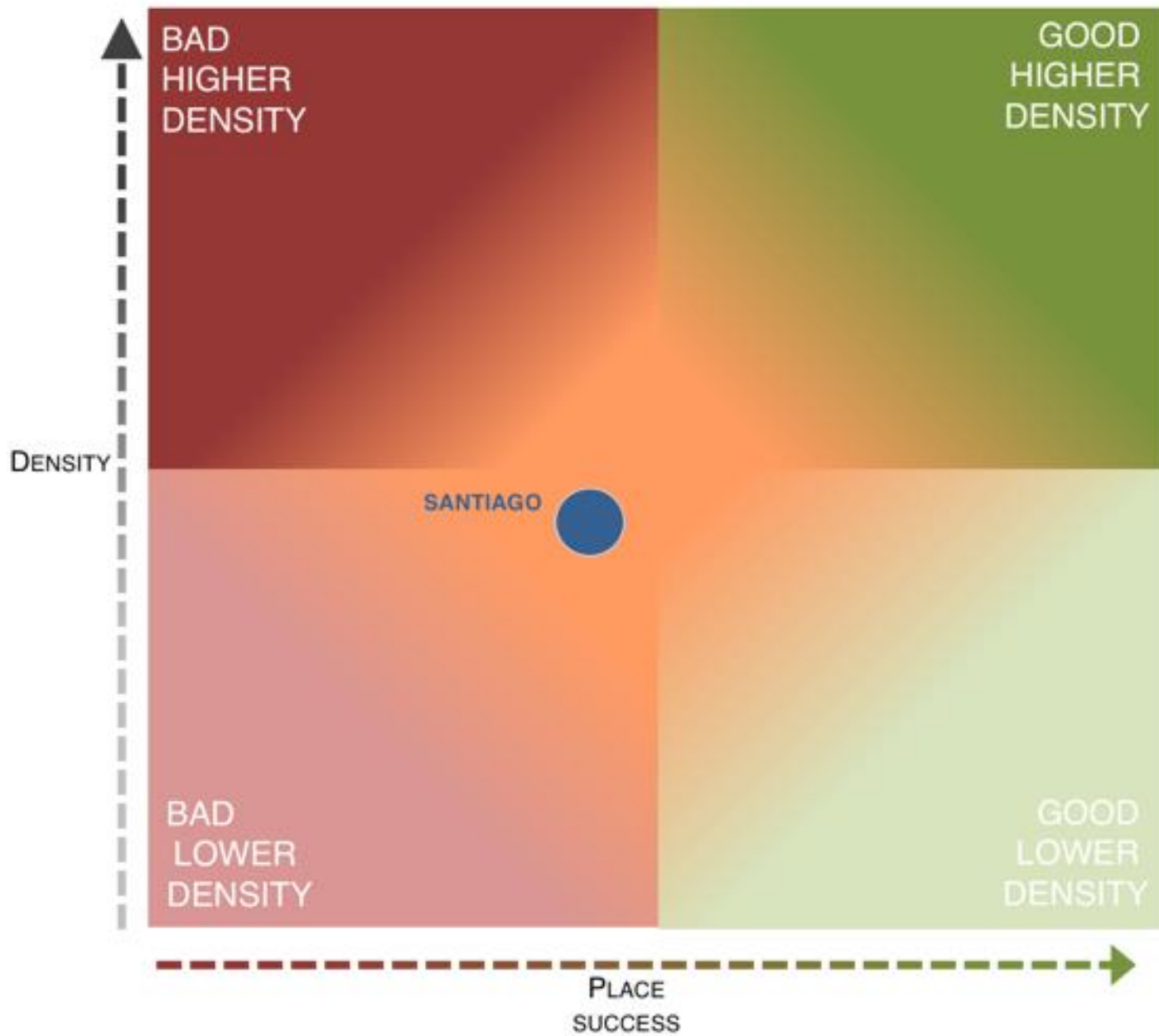
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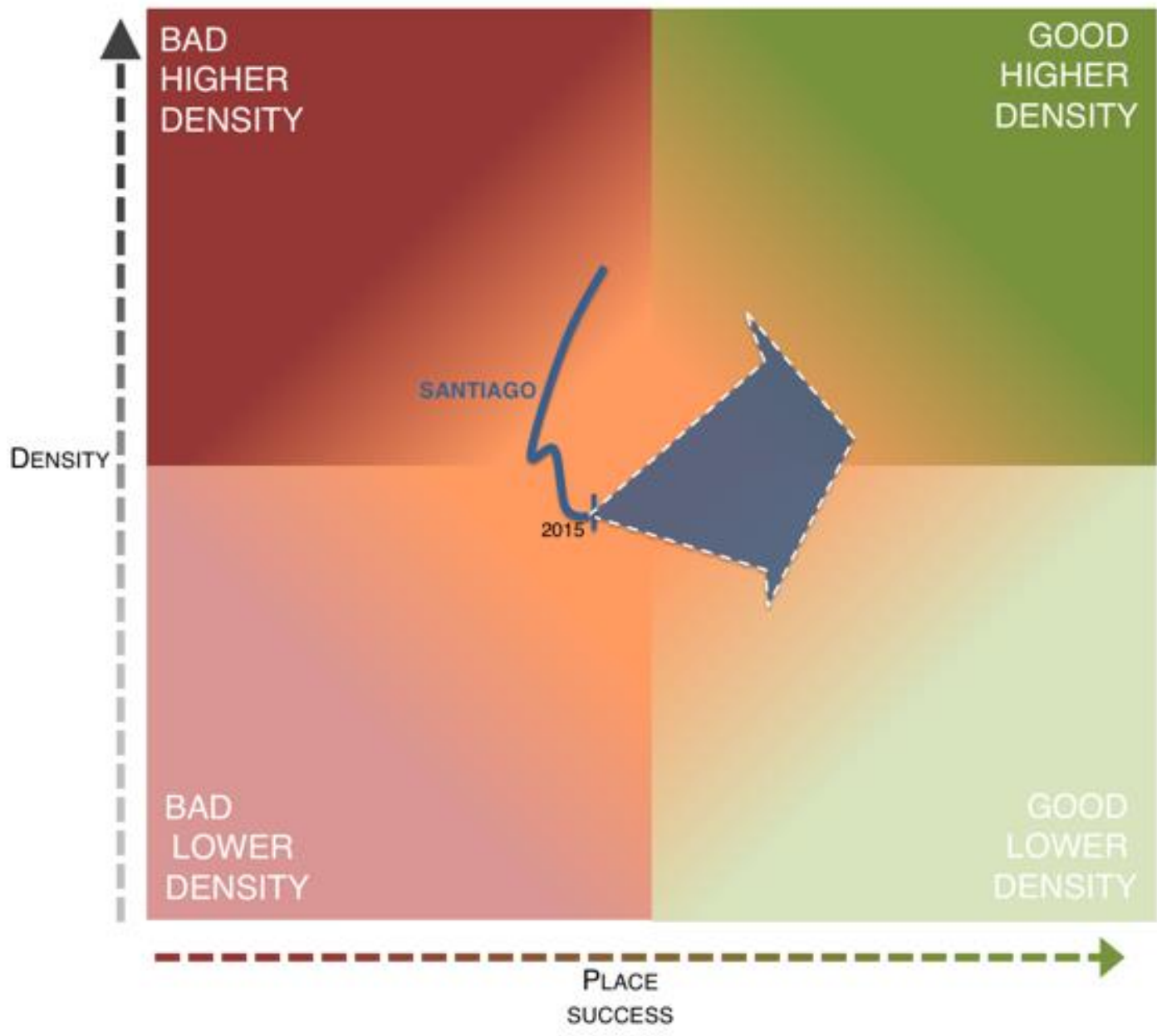
Dresden

Santiago's density equation?

Fundamentals		Execution		Momentum		Progress on Densification
Leadership and Vision		Tactics		Multi-cycle approaches	=	
Plan	+	Scale	+	Demand		
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