

# Two Birmingham Challenges



**Birmingham City Council Leader-** leading global green city;

**Planning-** 2031  
150,000 population;  
40,000 new homes;



## Presentation

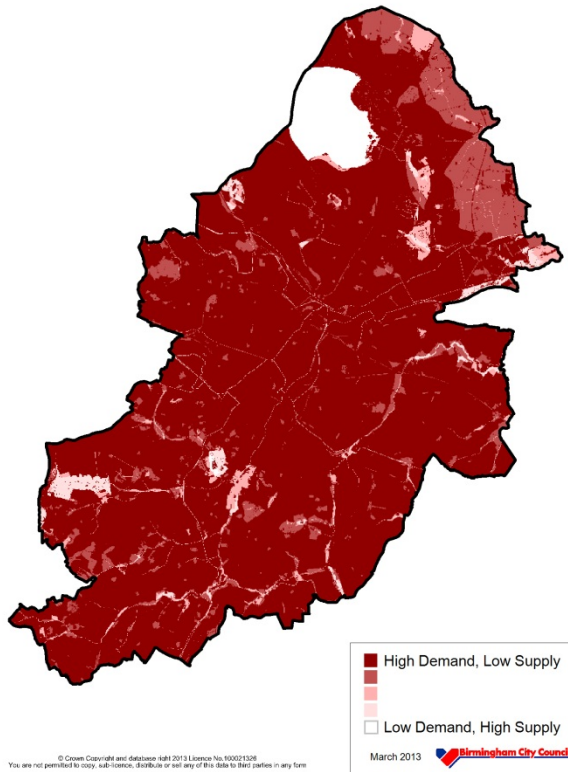
1. Urban Well-being Park
2. Natural Capital Planning Tool



Nick Grayson, Climate Change & Sustainability Manager,  
Senior Research Fellow, University of Birmingham

# Two Birmingham Challenges

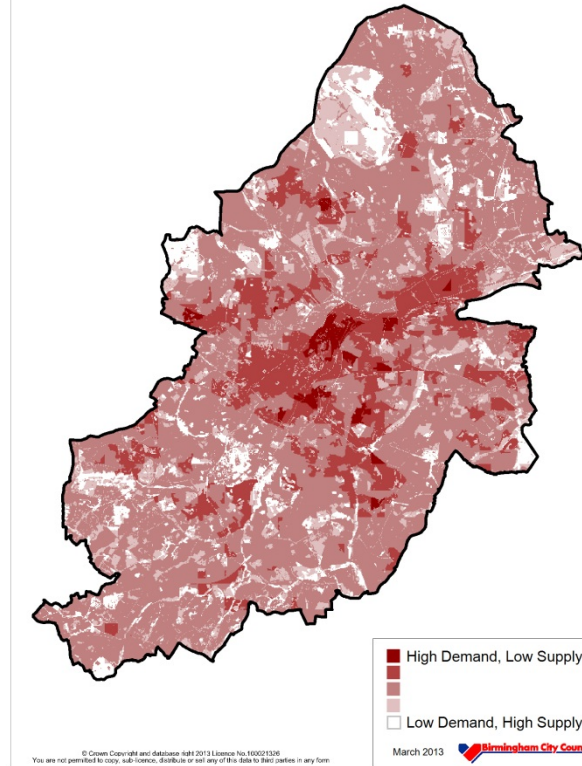
Biodiversity Services Supply and Demand map



• Biodiversity

• Education

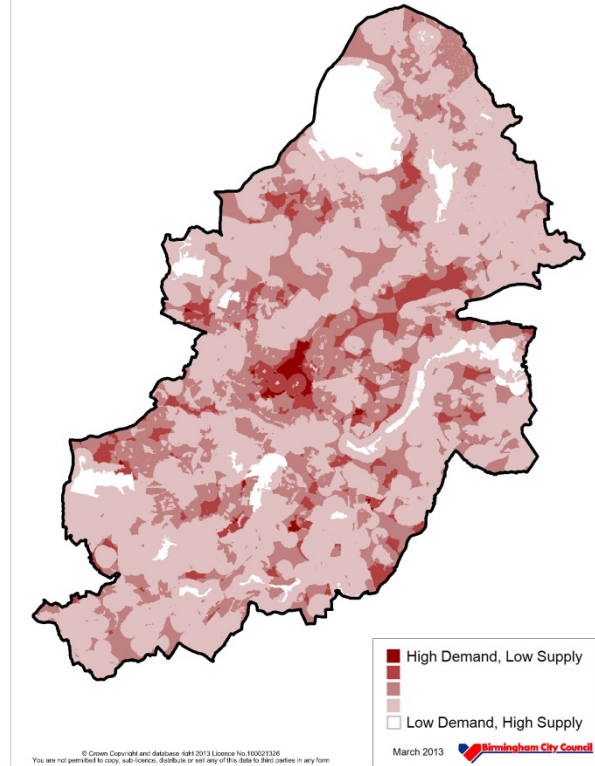
Local Climate Services Supply and Demand map



\* Local Climate

\* Aesthetics & mobility

Recreation Services Supply and Demand map

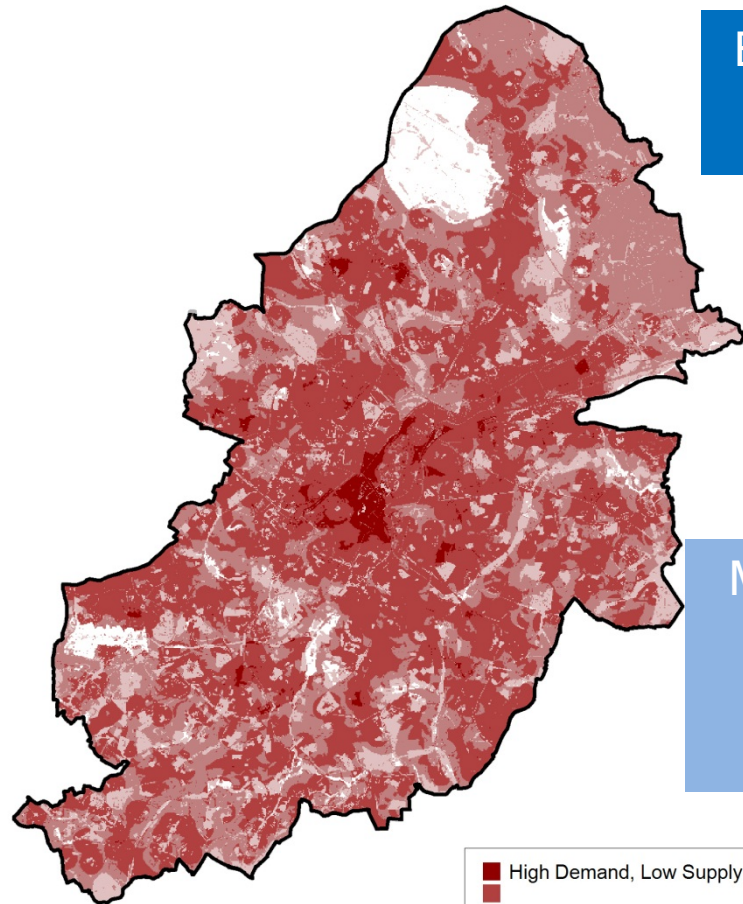


\* Recreation

\* Flood risk

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The Multi-layered Challenge map for Birmingham



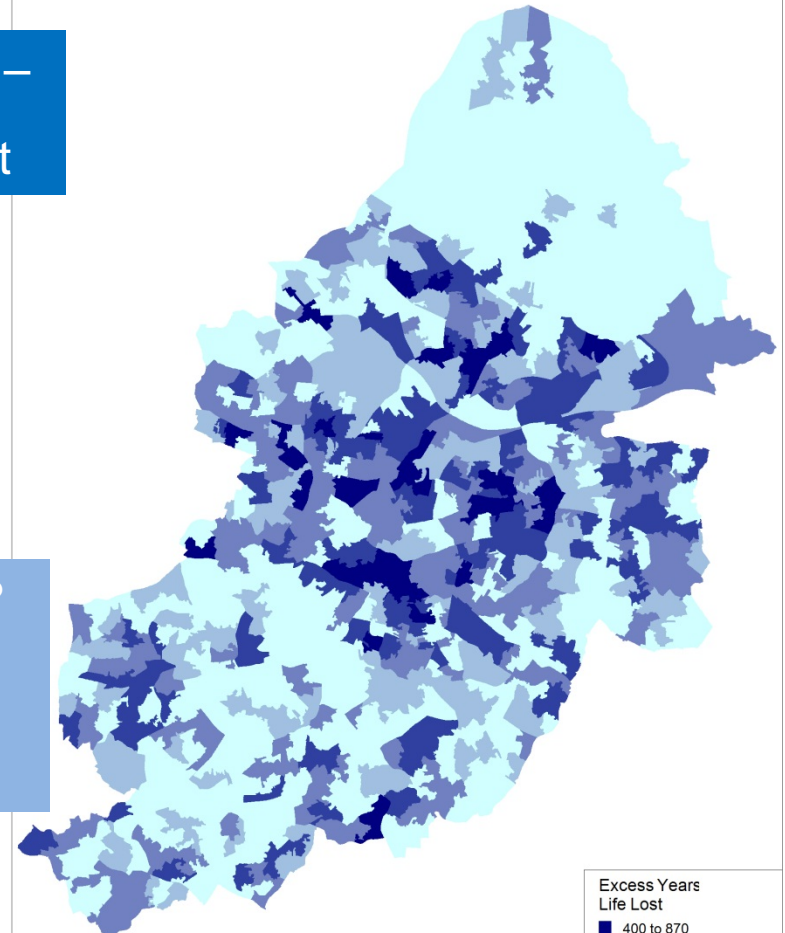
■ High Demand, Low Supply  
□ Low Demand, High Supply

March 2013 

Birmingham –  
a global first

Manchester?  
GLA?  
New York?

Excess Years Life Lost at LSOA



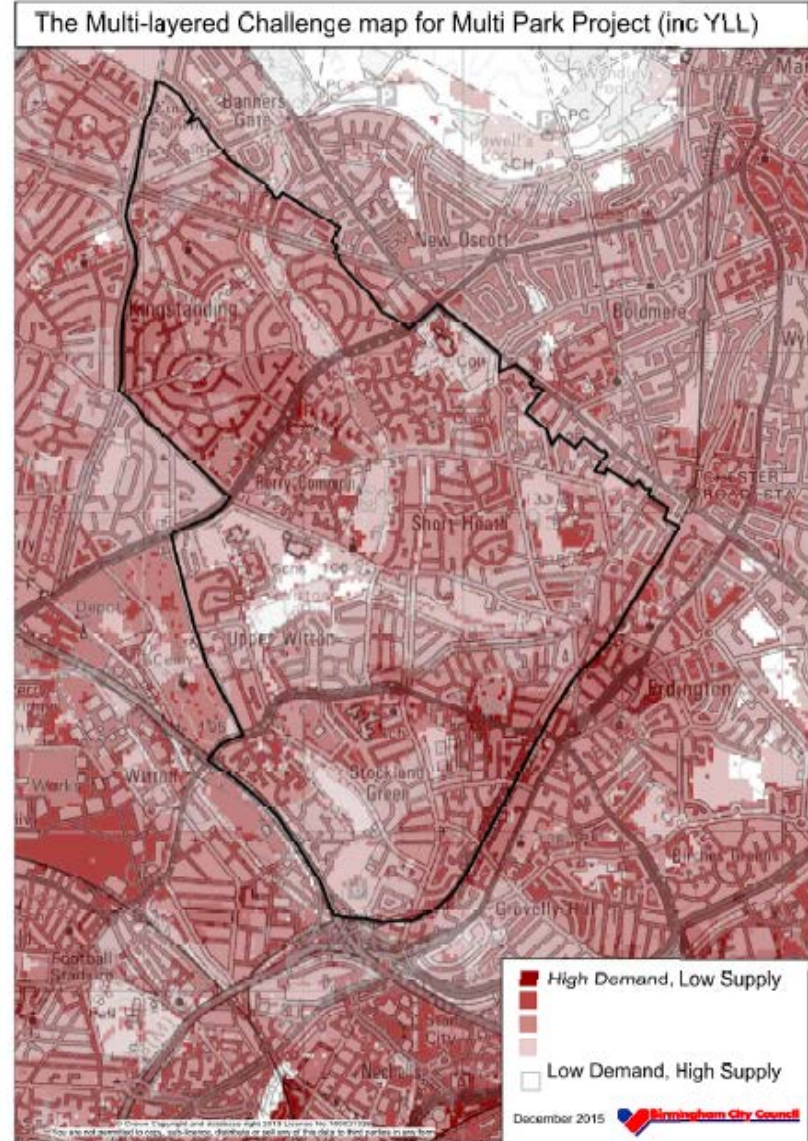
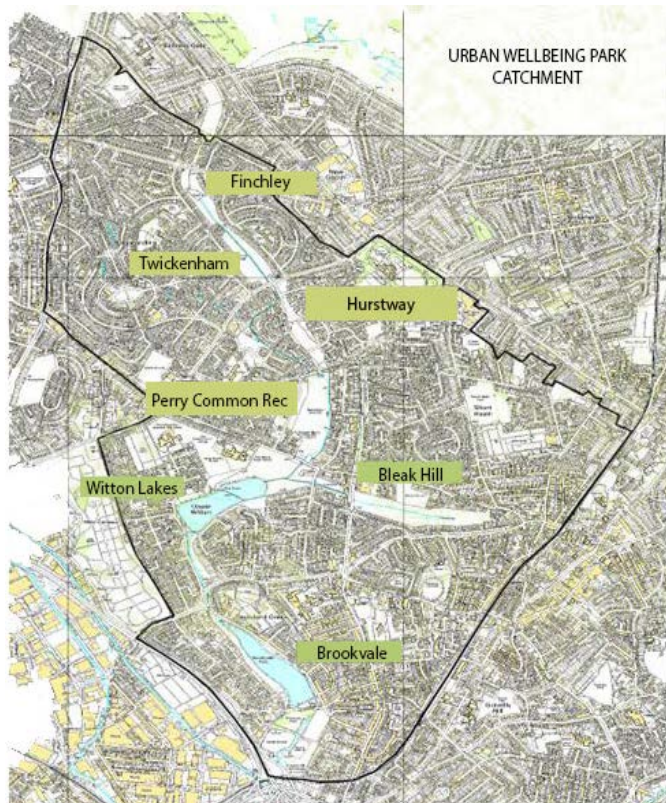
Excess Years  
Life Lost  
■ 400 to 870  
■ 200 to 400  
■ 100 to 200  
■ 0 to 100  
■ -400 to 0

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# Two Birmingham Challenges

## Urban Wellbeing Park Operational Plan

*“Creating living parks with people that are well used and managed for wellbeing”*



# Two Birmingham Challenges

## Birmingham Urban Wellbeing Park Cost-Benefit Analysis

February 2016

Oliver Hölzinger

Consultancy for Environmental Economics & Policy (CEEP), 24 Central Plaza, Birmingham, B15 2GE, [oliver.h@ceep-online.co.uk](mailto:oliver.h@ceep-online.co.uk)

Prepared for: Birmingham City Council

Suggested citation:  
Hölzinger, O. 2016: Birmingham Urban Wellbeing Park Cost-Benefit Analysis, Birmingham City Council, Birmingham.



Table 1.1 UWP CBA Summary

Central Estimate Net Present Value (NPV) 2016-2040; 2015 prices	
	UWP Project
Total Benefits	£3,172,781
Total Costs	£2,044,668
Net-Benefit	£1,128,114
Benefit-Cost Ratio (BCR)	1.55

Source: Author calculations

## Birmingham Urban Wellbeing Park Impact Framework

Version 1.0 February 2016

Theme	Impact Category	Indicator		Metric
Economic	A1 Volunteers	A1.1	Number of Volunteers Engaged	Count
		A1.2	Volunteer Hours	Hours
		A1.3	Value of Volunteer Hours	£

Theme	Impact Category	Indicator		Metric
Economic	A2 Education	A2.1	Number of people engaged in UWP outdoor education activities	Count
		A2.2	Total hours spent on UWP outdoor education activities	hours
	A4 Food	A4.1	Area Managed for Food Production	Ha
		A4.2	People engaged in food growing/ foraging activities	Count
Social	B1 Recreation	B1.1	Visitor Counts	Count
	B5 Aesthetic Appreciation	B5.1	Sites/area with Green Flag Status	Nr & ha
Environmental	C1 Biodiversity	C1.1	Area of Habitat/Land-Use Change	Type & Ha

Number one outcome –  
Over 5 years  
Prove the health benefits

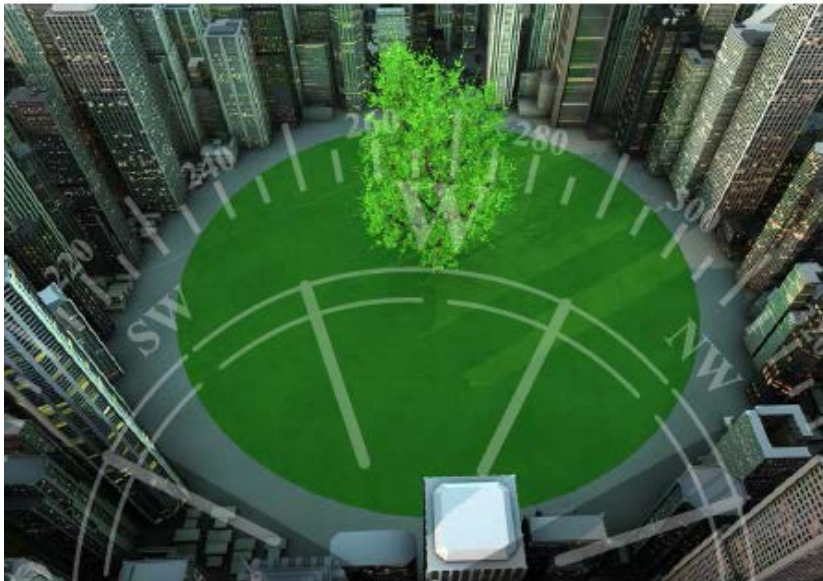
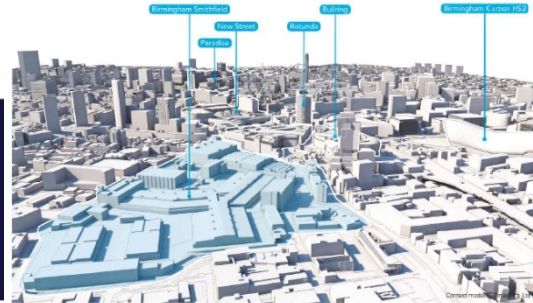
# Two Birmingham Challenges

Research



November 2015  
**Planning for Sustainable  
 Land-Use: The Natural Capital  
 Planning Tool (NCPT) Project**  
 [A new planning tool that directly links the delivery requirements  
 of the National Planning Policy Framework with the aspirational  
 values in the Natural Environment White Paper]

**Green Infrastructure  
 Innovation Projects call ?  
 £100,000 grant**



2016-18 to test NCPT as a  
**National Industry  
 Standard Tool?**

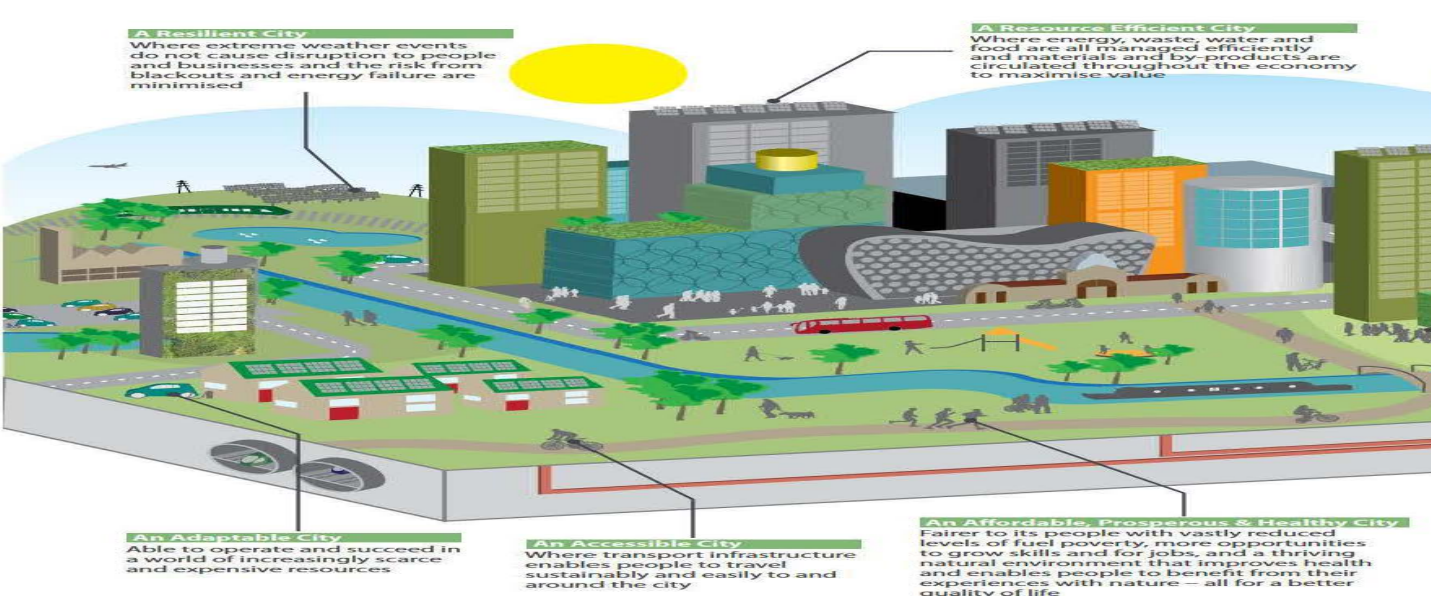
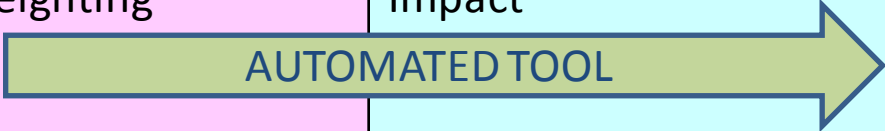
To be tested:-  
 Smithfield (ZEC)  
 Southern Gateway  
 Langley-SUE  
 UK Central (HS2)  
 Southampton  
 Central Bedfordshire



[rics.org/research](http://rics.org/research)

# Two Birmingham Challenges

Natural Capital Planning Tool - NCPT			(R.I.C.S.)
10 Ecosystem Services	Multiple Benefits	Stakeholders & Co-investors	Returns on Investment
25 indicators Ecosystems Impact Score	Ecosystem Service Weighting	Ecosystem Service Impact	Development impact score & options <b>+VE</b>



Sustainable Urban Extension; & Industrial Partners

ZERO EMISSIONS CITY SMITHFIELD WITH WORLD BUSINESS COUNCIL SUSTAINABLE DEVELOPMENT

# Two Birmingham Challenges

## Development Impact Score

Total for 71.5 Ha of Assessed Land-use Changes

Ecosystem Service	Adjusted Scores	Unadj. Scores
1. Harvested Products	-359.1	-359.1
2. Biodiversity	+55.7	+55.7
3. Aesthetic Values	-7.7	-7.7
4. Recreation	+72.3	+72.3
5. Water Quality Regulation	+1.9	+1.9
6. Flood Risk Regulation	+1.1	-0.7
7. Air Quality Regulation	+22.6	+22.6
8. Local Climate Regulation	-1.6	-1.6
9. Global Climate Regulation	-57.8	-57.8
10. Soil Contamination	+0.0	+0.0
<b>Development Impact Score</b>	<b>-27.3</b>	<b>-27.4</b>

## Langley SUE initial master plan concept capacity test



1. Housing quality and design
2. Access to healthcare services and other social infrastructure
3. Access to open space and nature
4. Air quality, noise and neighbourhood amenity
5. Accessibility and active travel
6. Crime reduction and community safety
7. Access to healthy food
8. Access to work and training
9. Social cohesion and lifetime neighbourhoods
10. Minimising the use of resources
11. Climate change

# Two Birmingham Challenges

## Cities taking the lead

Cities already participating in the Zero Emissions Cities project are Amsterdam (Netherlands), Birmingham (UK) and Navi Mumbai (India).



### AMSTERDAM

The ZEC project will focus on two specific initiatives in the Amsterdam Zuidooost district, i.e. transport of persons and light freight without emissions and net-zero energy for a group of buildings connected to district heating and district cooling. Besides, a new way of working with stakeholders will be developed to create a zero emission district using the TRANSFORM Decision Support Environment.



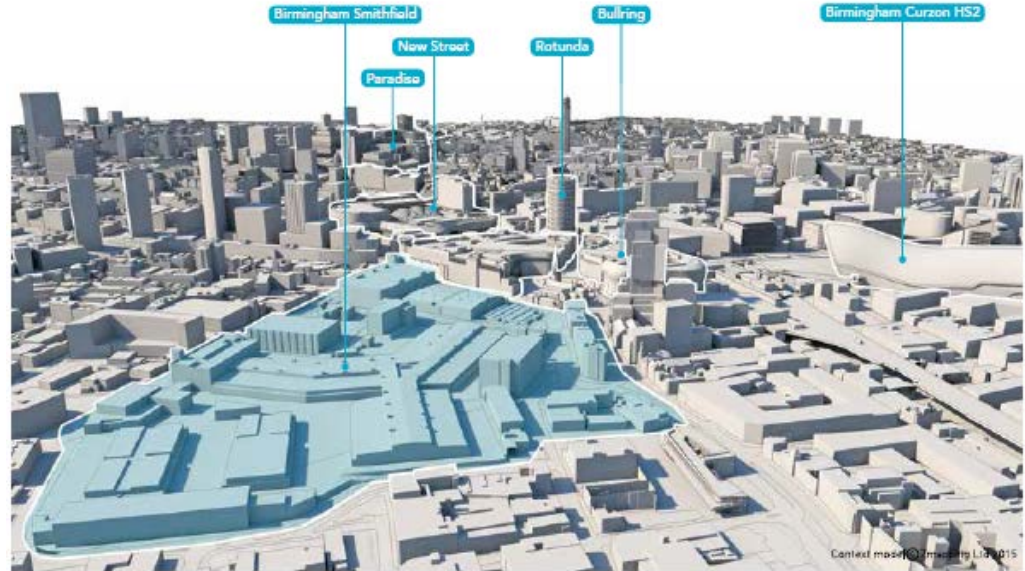
### BIRMINGHAM

Working with Birmingham City Council to deliver an exemplar zero emission development for the Smithfield District of the City. The ZEC approach will deliver a commercial outcome focusing on buildings, mobility and energy solutions, underpinned by a commitment to recognizing natural capital impacts enhancing Birmingham's position as a leading biophilic city.



### NAVI MUMBAI

The Navi Mumbai ZEC project will work with the City and Industrial Development Corporation (CIDCO) of Maharashtra State. The goal is to develop a zero-emissions district near the new airport area, in a ca. 250 ha development to be realized in the next few years.



Context masterplan Birmingham L3 2015

context / birmingham smithfield

## Zero Emissions Cities



Net +ve for natural capital; global learning for wbcscd

The Zero Emissions Cities project started working with these three pioneering cities from mid 2015 and is looking for more cities and companies to expand. **Interested?**

Please contact:

Roland Hunziker, Director – Sustainable Buildings & Cities at: [hunziker@wbcscd.org](mailto:hunziker@wbcscd.org) or check [www.wbcscd.org](http://www.wbcscd.org)



# Birmingham: The UK's First Biophilic City

**BiophilicCities** - Cities that achieve a deep affinity with nature



# Two Birmingham Challenges

## Questions & Answers?

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<http://www.birmingham.gov.uk/greencommission>

<http://www.birmingham.gov.uk/greenlivingspaces>

<http://www.birmingham.gov.uk/plan2031>

[http://birminghamclimate.com/ie\\_index2.html](http://birminghamclimate.com/ie_index2.html)

<http://www.wbcsd.org/home.aspx>

<http://uknea.unep-wcmc.org/>

[http://www.local.gov.uk/health/-/journal\\_content/56/10180/3510483/ARTICLE](http://www.local.gov.uk/health/-/journal_content/56/10180/3510483/ARTICLE)

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<https://www.naturalcapitalcommittee.org/>

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<http://www.farrellreview.co.uk/>

<http://www.un.org/apps/news/story.asp?NewsID=48773#.VrnAcVLctjo>

<http://biophiliccities.org/>

<http://liveablecities.org.uk/>

