

What single thing  
would you most like  
to see happening in  
your city over the  
next year?



# FUTURE CITIES CATAPULT

## FROM RESEARCH TO INNOVATION IN A SMART CITIES ECOSYSTEM



Dr Gemma Guilera  
SME Programme Lead  
JULY 2017

# STRUCTURE

- Future Cities Catapult
- Why Cities?
- Innovation in Cities and its Stakeholders
- Live example



A vibrant street scene in a city, likely Helsinki, featuring a yellow and green tram (number 109) on tracks. Pedestrians are walking on the sidewalk, and various signs and buildings are visible. A large, semi-transparent dark grey circle is overlaid in the center, containing the text 'WHY CITIES?'.

# WHY CITIES?

**CATAPULT**  
Future Cities



“Barcelona has been  
around for 2000  
years, I am not sure  
how much longer  
Spain will be”  
*Manel Sanroma-  
CIO Barcelona*

# PEOPLE !



**Technology is  
the answer.  
What was  
the question?**

**Cedric Price, architect**



# TECHNOLOGIES

Machine learning/  
AI



Internet of Things



Robotics



3D  
Printing



Big  
Data/BIM



**CATAPULT**  
Future Cities





“ Good governance is putting people at the center of the development process. ”

—Prime Minister Narendra Modi

## WHAT IS A SMART CITY?

Smart Cities focus on their most pressing needs and on the greatest opportunities to improve lives. They tap a range of approaches – digital and information technologies, urban planning best practices, public-private partnerships, and policy change – to make a difference. They always put people first.

[LEARN MORE](#)

**PEOPLE!**

# INNOVATION IN CITIES & ITS STAKEHOLDERS



### CITIES & STAKEHOLDERS

**ALEX WROTLESLEY** GEOVATION  
EVERY CITY HAS UNIQUE CHALLENGES  
GEOVATION IS AN ACCELERATOR. WE TAKE YOUR DATA & ANALYSE TO DEVELOP GEOGRAPHICAL DATA & INNOVATE THE WAY WE MAP THE CITY.

**TOM HENNESSY** OPPORTUNITY PETERBOROUGH  
KEEPING THE CITIZEN AT THE HEART OF THE CITY  
MAKING A FUTURE CITY MORE HUMAN IS THE KEY

**MILOS MILISAVLJEVIC** STRAWBERRY ENERGY  
SOLAR POWERED  
WE NEED TO UNDERSTAND WHAT PEOPLE WANT TO SHAPE WHAT WE DELIVER

**JAMES TROTTER** AMEY FERROVIAL  
WE NEED TO UNDERSTAND WHAT PEOPLE WANT TO SHAPE WHAT WE DELIVER

**MARK SAUNDERS**

WHEN WE FIND SMEs THAT CAN USE OUR DATA AND GIVE THEM SUPPORT

DEMOCRATISATION OF DATA WILL ALLOW THE CITIZEN TO HAVE MORE POWER & CONTROL OF THEIR LIVES

INTEGRATION IS AGENCY SO TO CREATE SIMPLER CITIES WE NEED TO CHANGE INFRASTRUCTURE

SMART URBAN FUTURE  
BRINGING NETWORK AROUND THE CITY

### SUPPORT SMEs & HELP THEM GROW

### KEYS TO SUCCESS

**LEE OMAR** RED NINJA  
DESIGN-LED COMPANY WE INVOLVE USERS IN DESIGN ALL THE WAY TO THE PRODUCT LAUNCH

**JAMIE WILSON**

UK'S LEADING ONLINE DESTINATION TO HELP FAMILIES FIND-FORWARD, QUALITY AND AFFORDABLE CARE

**CHALLENGES**

- RAISING CAPITAL
- BUILDING TRUST
- SCALING TEAMS & OPERATIONS

**ADVICE**

- BE PREPARED TO GO THE DISTANCE
- SPEND TIME GETTING THE CAPITAL STRUCTURE
- EMPOWER COLLEAGUES & DON'T COMPROMISE ON GETTING THE BEST PEOPLE

PEOPLE DO WORSE AND USE THE DATA THEY CAN AND FOLLOW THE PROBABLY AND STAYS OF DATA

COMBINE & LAYER

### REFLECTIONS OF A VENTURE CAPITALIST

**STEFANO L. TRESCA** MANAGING PARTNER ISEED

MONEY IS A COMMODITY YOUR TALENT IS WORTH MORE THAN MONEY

CROWDFUNDING CAN GIVE YOU TOTAL CONTROL OVER YOUR BUSINESS PLUS YOU BENEFIT FROM MORE TRANSPARENCY AND LOYALTY

INVESTMENT FROM ONE VC COULD AFFECT THE AMOUNT OF CONTROL YOU HAVE OVER YOUR COMPANY

FINANCING MONEY IS A JOB AND TIME CONSUMING CONSIDER CROWDFUNDING

THE FOUNDER SHOULD OWN AN IMPORTANT SHARE OF THE COMPANY TO BE INVESTIVE

HAVING AN INVESTOR IS LIKE BEING IN A RELATIONSHIP

### URBAN CHALLENGES

**IDE DIGNAN** SMART CITY EXPERT (MODERATOR)

HOW TO FIND THE RIGHT PERSON

BETTER UNDERSTANDING OF WHAT PEOPLE NEED!

PILOTS TO SPEED UP THE PROCESS

FIND OUT WHO'S GOT THE BUDGET

BETTER TRAFFIC CONTROL FOR IDEAS

UNDERSTANDING THE BENEFITS OF NEW TECHNOLOGY (SOLAR, ENVIRONMENTAL, ETC)

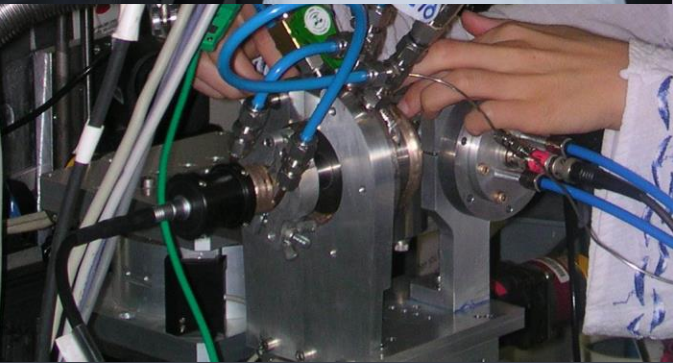
HOW TO GET (MESSAGING FOR ORGANISATION) HOW TO REACH THEM AND FASTER

HOW CAN WE SET A CONTRACT TO FACILITATE INNOVATION?

ISSUES WITH PROCUREMENT HOW TO ENGAGE MORE WITH SMEs

TALK TO THE RIGHT CORPORATIONS ALREADY TALKING TO CITIES

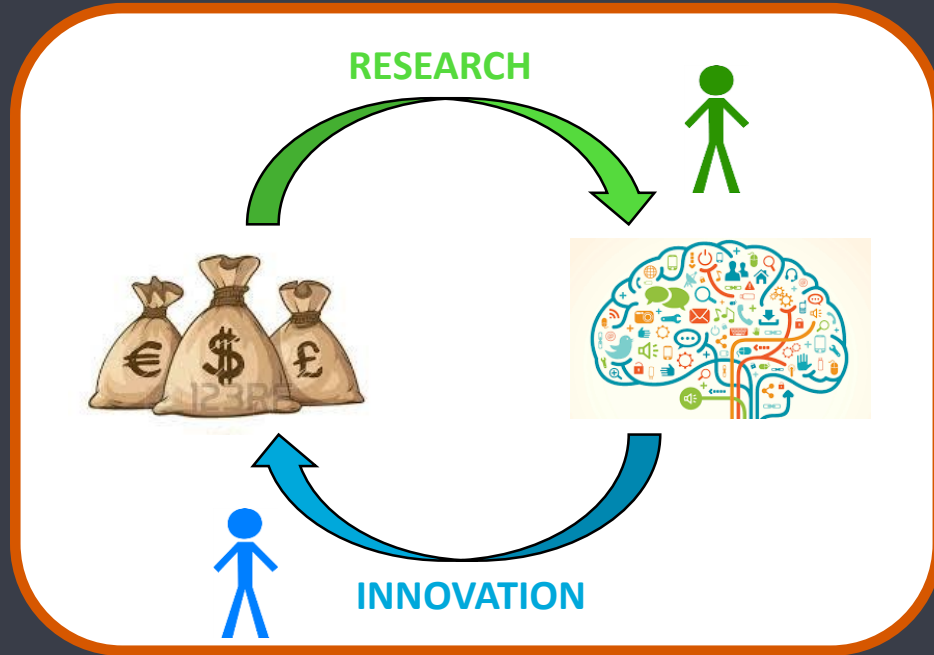




# RESEARCH vs INNOVATION



Focussing on hitting the market and making money



Focusing on understanding technology, science, and to generate knowledge

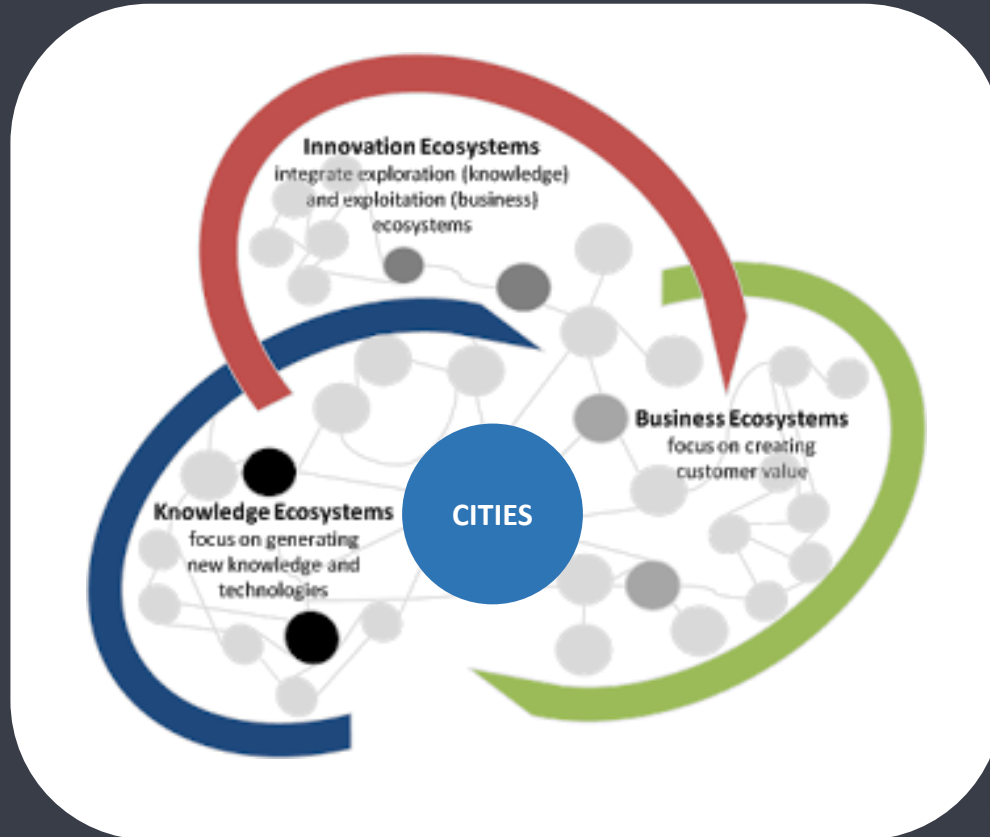
Both are aiming at re-shaping the future

# INNOVATION ECOSYSTEM IN CITIES

FACILITATORS

CITIZENS

UNIVERSITIES



FUNDING ORGANISATIONS

BIG CORPORATES

STARTUPS AND SMES

GOVERNMENT

CITIES

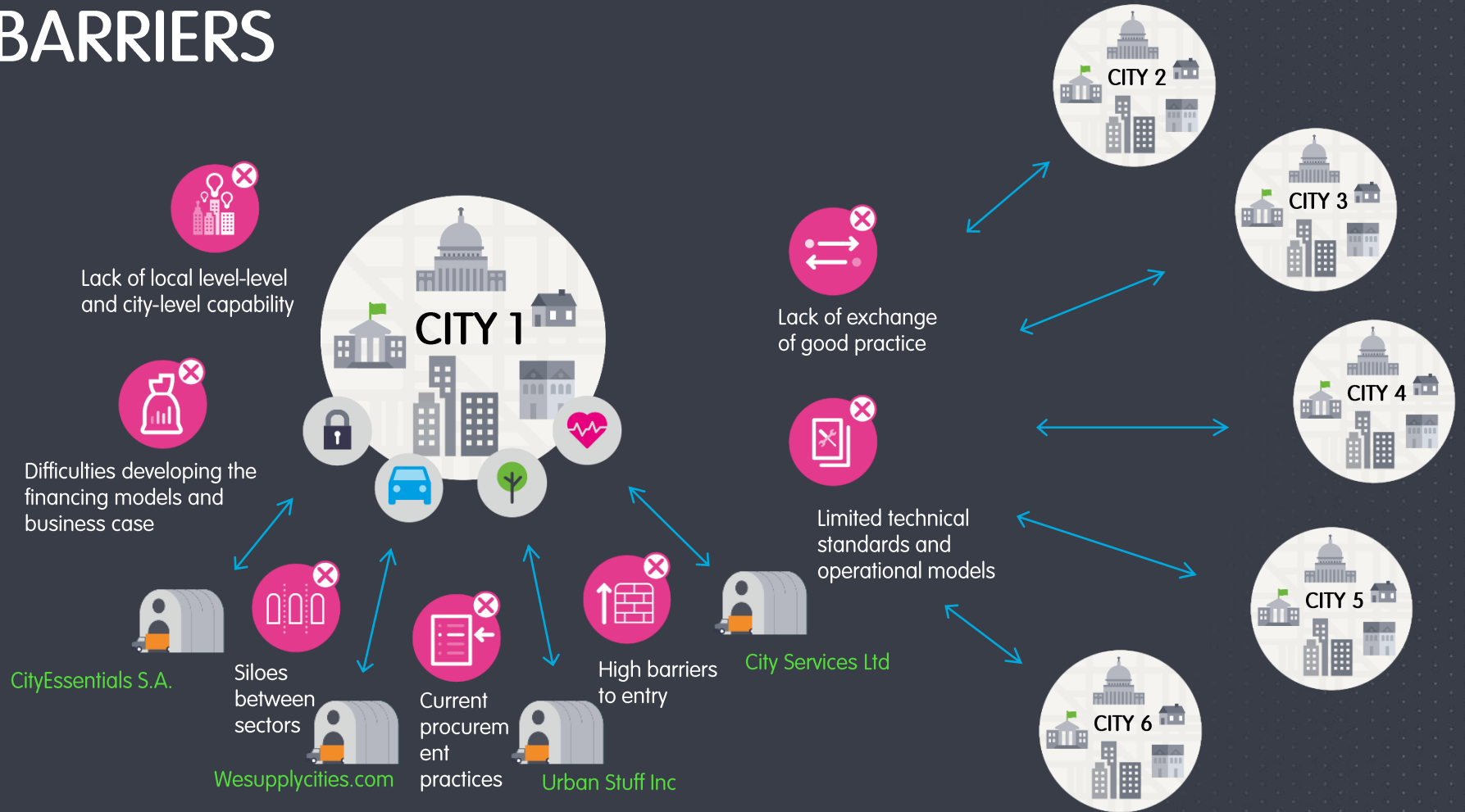
NGOs

Cities

# BARRIERS TO THE CITY MARKET

- the market is ill-defined and the language confusing
- cities are not good at taking joined-up decisions
- there's no established business case or business-model
- there are significant financial, legal and procurement obstacles
- there are no or few city-scale facilities for demonstration and validation
- there are no or few neutral spaces for cities and businesses to collaborate openly

# BARRIERS





**Universities**

# Universities have a phenomenal potential for innovation

## PROBLEMS:

- Idea is everything
- Reluctant to share
- They think the need to own the product/service
- They think that giving the academic the opportunity to do entrepreneurship is all what matters

# Start-ups and SMEs

## START-UP

“A **start-up** is a company that is confused about a number of things: **what its product is; who its customers are; and how to make money**. As soon as it figures out all three things, it ceases being a start-up and becomes a real business”  
*(Dave McClure, founder of 500Startups)*

“A **start-up** is a temporary organization used to search for a repeatable and scalable business model” *(Steve Blank, world-renown serial entrepreneur and academic)*

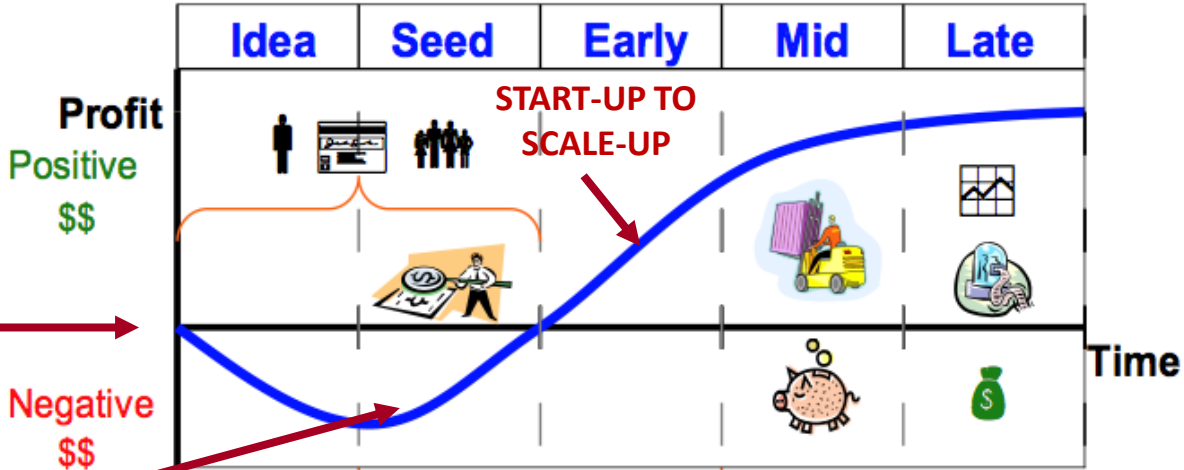
## SCALE-UP

A **scale-up** is a as a development-stage business, specific to high-technology markets, that is looking to grow in terms of market access, revenues, and number of employees, adding value by identifying and realizing win-win opportunities for collaboration with established companies. Aligning with his definition of a start-up from Steve Blank, a **scale-up** is past the search phase and rather in the execution phase of the business model.

## SCALER













A **scaler** is that established company that can provide growth opportunities to scale-ups. Generally, it can be discerned by having gone through a growing phase (has grown in sales and number of employees) and by having received major investment capital. These companies tend to be medium sized SMEs.

# Start-up Life Cycle



POINT OF NO RETURN

PRODUCT-MARKET FIT

Legend	
	Personal Savings
	Credit Cards
	Family & Friends
	Microfinance
	Angels
	Gov. Grants & Loans
	Business Incubator Investment
	Bank Loans
	Loans Against Inventory
	Venture Capital
	Institutional Investors
	Stock Market
	IPO

# RECOMMENDATIONS FOR START-UPS

- Do not try to be too perfect – that's why MVP (Minimum Viable Product) exist
- Do not get too much in love with your technology – know when to pivot
- Do not confuse NEED with DEMAND
- Know the name and surname of the person who will buy your product
- Think sell through and sell with- less sell to
- Use your support network
- Leverage an advisory group
- Contacts, contacts, contacts !

# Big corporates



# Facilitators



# INNOVATION HUBS, INCUBATORS & ACCELERATORS



# WHY ARE THEY DIFFERENT?



- Embrace fluidity and diversity
- Focus on impact
- Encourage serendipitous meetings and collaborations
- Create a sense of community
- Intensify collaboration innovation
- Catalyse the innovation process
- Enable, rather than force innovation



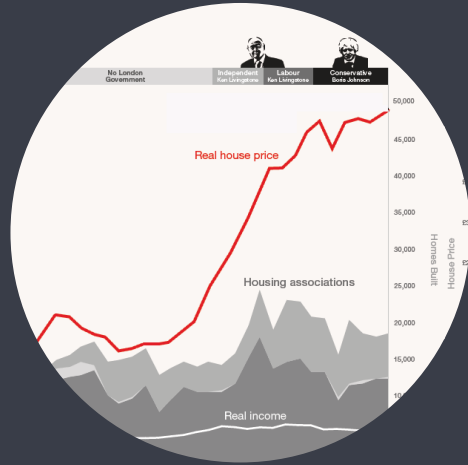
CLUSTERS  
are  
IMPORTANT!



FUTURE   
OF   
PLANNING

**CATAPULT**  
Future Cities

# “Planning is broken”



Housing crisis



Poor quality places



Disengaged citizens



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# ...so we've been enabling experimentation...

**State of the Art** in Digital Planning

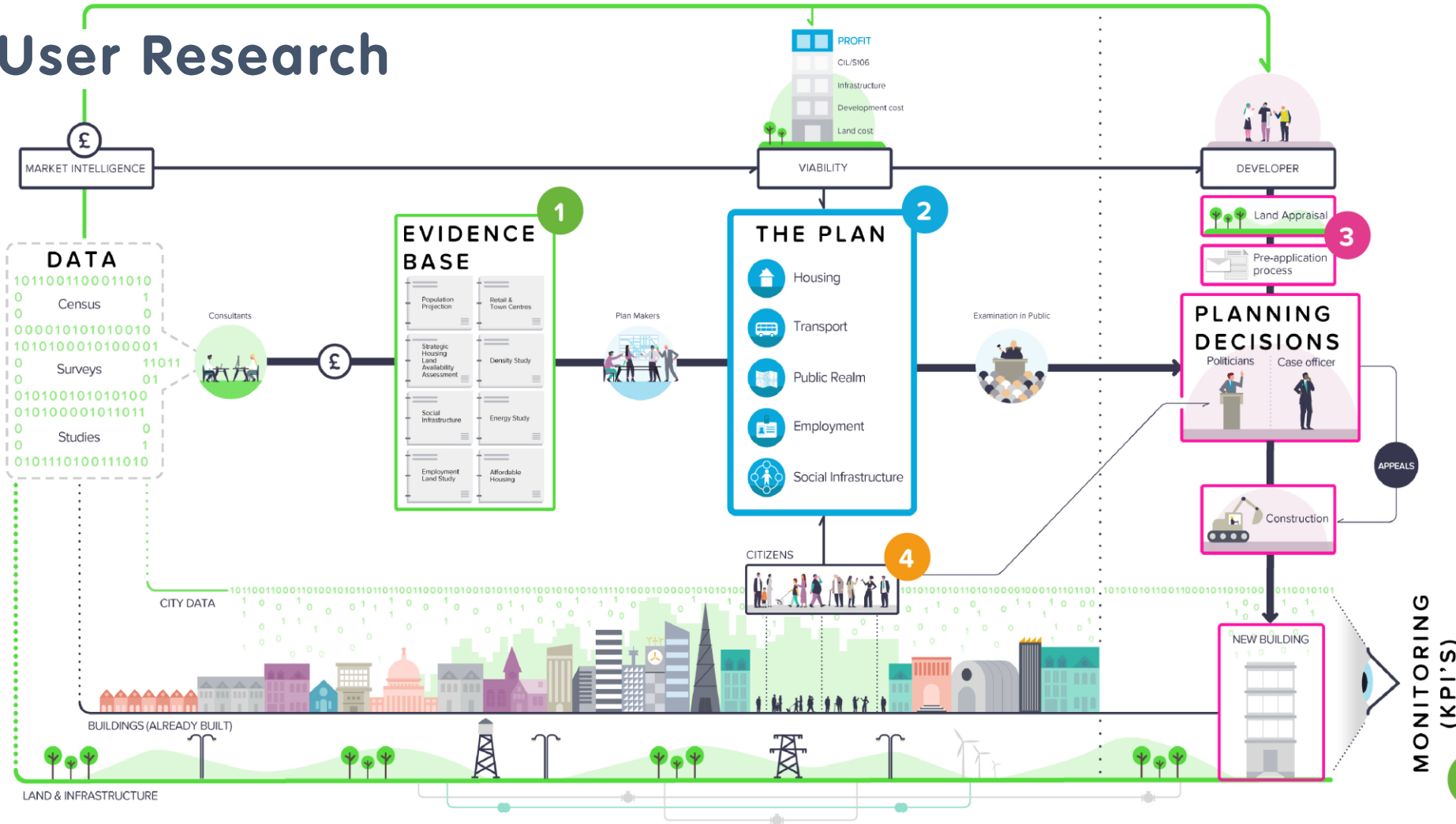
**Sounding Board** with practitioners that include planners, architects, activists, urbanists, developers and councillors.

**Innovators Sessions** in Birmingham and London

**Hackathon** in London with Land Insight

**User Research** with those involved in the planning system in London, Greater Manchester and Plymouth

# User Research





# 1. Data

- [background to development of the core strategy v6, 2010 \[pdf, 264.1Kb\]](#)
- [Bishopsgate Goods Yard Interim planning guidance 2010 \[pdf, 4.64Mb\]](#)
- [core strategy issues and options evidence appendix \[pdf, 353.89Kb\]](#)
- [Dalston area action plan 2013 \[pdf, 1.33Mb\]](#)
- [development management consultation report July 2013 \[pdf, 188.21Kb\]](#)
- [development management local plan - draft for public participation July 2012 \[pdf, 2.05Mb\]](#)
- [development management local plan - equalities impact assessment publication July 2013 \[pdf, 1.04Mb\]](#)
- [development management local plan - equality impact assessment - draft for public participation \(July 2012\) \[pdf, 135.9Kb\]](#)
- [development management local plan - habitat regulations assessment - draft for public participation \(July 2012\) \[pdf, 3.0Mb\]](#)
- [Development management local plan - sustainability appraisal - draft for public participation \(July 2012\) \[doc, 6.09Mb\]](#)
- [development management local plan - sustainability appraisal publication July 2013 \[pdf, 1.65Mb\]](#)
- [equalities impact assessment, 2009 \[pdf, 348.58Kb\]](#)
- [Hackney regeneration delivery framework 2009 \[pdf, 4.25Mb\]](#)
- [Hackney borough profile, 2006 \[pdf, 3.33Mb\]](#)
- [Hackney Central area action plan 2012 \[pdf, 3.66Mb\]](#)
- [Hackney core strategy \(adopted 2010\) \[pdf, 4.7Mb\]](#)
- [Hackney core strategy, a strategic alignment report, 2009 \[pdf, 704.13Kb\]](#)
- [Hackney infrastructure assessment and delivery plan 2011-14 \[pdf, 4.09Mb\]](#)
- [Hackney planning contributions supplementary planning document, 2006 \[pdf, 2.13Mb\]](#)
- [Hackney UDP saved proposals map \[pdf, 3.11Mb\]](#)
- [Hackney unitary development plan 1995 \[pdf, 1.4Mb\]](#)
- [Hackney Wick area action plan 2012 \[pdf, 12.26Mb\]](#)
- [Holman and N. Holman Torah, worship and acts of loving kindness: baseline indicators for the Charedi community in Stamford Hill, 2002 \[pdf, 745.7Kb\]](#)
- [annual monitoring report 2008/09 \[pdf, 3.21Mb\]](#)
- [authority monitoring report 2011-12 \[pdf, 2.21Mb\]](#)
- [letter from GLA regarding conformity, 2013 \[pdf, 30.44Kb\]](#)
- [Local development scheme 2010-13 \[pdf, 423.2Kb\]](#)
- [Local development scheme 2013 \[pdf, 209.91Kb\]](#)
- [local plans and the national planning policy framework - compatibility self assessment checklist - LBH saved policies \[pdf, 416.05Kb\]](#)
- [London plan 2011 \[doc, 1.78Mb\]](#)

[Mayor's Housing and Planning Plan 2012 \[pdf, 2.14Mb\]](#)

- [London plan 2011 \[doc, 1.78Mb\]](#)
- [Manor House area action plan 2013 \[pdf, 3.14Mb\]](#)
- [notes on the protection and provision of traveller sites in London Borough of Hackney \[pdf, 199.48Kb\]](#)
- [open for business - development prospectus 2010 \[pdf, 1.49Mb\]](#)
- [proposed development management local plan - policies map \(July 2012\) \[pdf, 7.34Mb\]](#)
- [public realm SPD, 2012 \[pdf, 3.38Mb\]](#)
- [representations database with officers response \(July 2013\) \[pdf, 722.48Kb\]](#)
- [residential extensions and alterations SPD, 2009 \[pdf, 5.27Mb\]](#)
- [revised early minor alterations to the London plan \(October 2013\) \[pdf, 466.46Kb\]](#)
- [SALP equality impact assessment - draft for public participation July 2012 \[pdf, 309.67Kb\]](#)
- [SALP equality impact assessment - publication July 2013 \[pdf, 862.13Kb\]](#)
- [schedule of changes to the site allocation local plan at publication stage June 2013 \[pdf, 41.48Kb\]](#)
- [site allocations local plan - consultation report July 2013 \[pdf, 189.95Kb\]](#)
- [site allocations local plan - habitats regulation assessment draft for public participation July 2012 \[pdf, 934.82Kb\]](#)
- [site allocations local plan - sustainability appraisal draft for public participation July 2012 \[pdf, 1.85Mb\]](#)
- [site allocations local plan - sustainability appraisal July 2013 \[pdf, 2.1Mb\]](#)
- [site allocations local plan - draft for public participation July 2012 \[pdf, 3.44Mb\]](#)
- [South Shoreditch SPD, 2006 \[pdf, 2.71Mb\]](#)
- [statement of Licensing 2011 \[pdf, 920.31Kb\]](#)
- [sustainable community strategy 2008-2018 \(2009\) \[pdf, 5.37Mb\]](#)
- [Woodberry Down regeneration: A framework for regeneration, 2009 \[pdf, 10.98Mb\]](#)

[Back to top](#)

## Built environment

- [Hackney tall building strategy - phase 1 - baseline studies \[pdf, 1.72Mb\]](#)
- [Hackney tall building strategy - phase 2 - urban analysis and conclusion \[pdf, 2.6Mb\]](#)
- [Hackney tall building strategy - phase 3 - detailed area studies \[pdf, 2.59Mb\]](#)
- [Hackney tall building strategy - phase 4 - tall buildings design guidance and application checklist \[pdf, 1.64Mb\]](#)
- [London view management framework, 2012 \[doc, 468Kb\]](#)
- [The state of Hackney's historic environment, 2005 \[pdf, 2.13Mb\]](#)

## Tall buildings study

Please note: Although the material has been commissioned by Hackney, for Hackney and is on our website, these reports are the work of independent consultants and any recommendations contained in the reports should not be taken as approved Hackney policy.

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- [Tall buildings summary report \[pdf, 12.92Mb\]](#)

## Background report

- [phase 1 - baseline studies \[pdf, 1.72Mb\]](#)
- [phase 2 - urban analysis \[pdf, 2.6Mb\]](#)
- [phase 3 - detailed area studies \[pdf, 2.59Mb\]](#)
- [Phase 4 - design guidance and policy recommendations \[pdf, 1.64Mb\]](#)

## Employment

- [Hackney employment growth options study update, 2010 \[pdf, 1.57Mb\]](#)
  - [Hackney employment growth options study: Comparison of 2006 and 2009 designations \[pdf, 4.23Mb\]](#)
  - [Hackney employment growth options study: Hackney areas \[pdf, 5.48Mb\]](#)
  - [Hackney employment growth options study: Recommended policy designations \[pdf, 4.53Mb\]](#)
- [Hackney employment growth options study final report , 2006 part 1 \[pdf, 4.61Mb\]](#)
  - [Hackney employment growth options study final report , 2006 part 2 \[pdf, 1.97Mb\]](#)
  - [Hackney employment growth options: appendices \[pdf, 719.8Kb\]](#)
- [review of live-work policy in Hackney, London residential research, 2005 \[pdf, 730.05Kb\]](#)
- [study of small business workspace provision in Hackney, 2006 \[pdf, 749.78Kb\]](#)

## Employment growth options study

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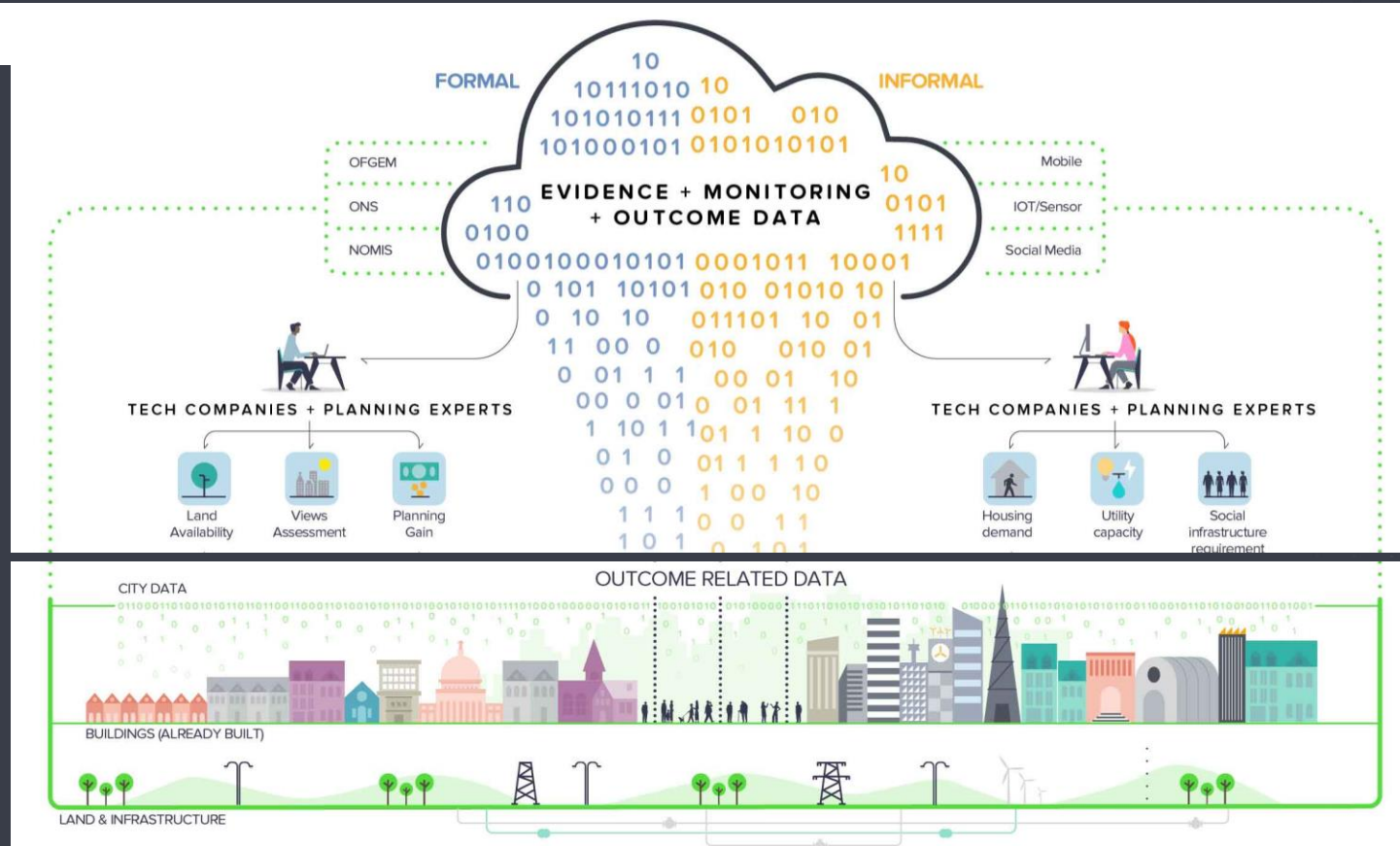
- [evidence day employment presentation boards \[pdf, 1.17Mb\]](#)

Presentation boards are a summary of the work completed to date.

## Executive summary

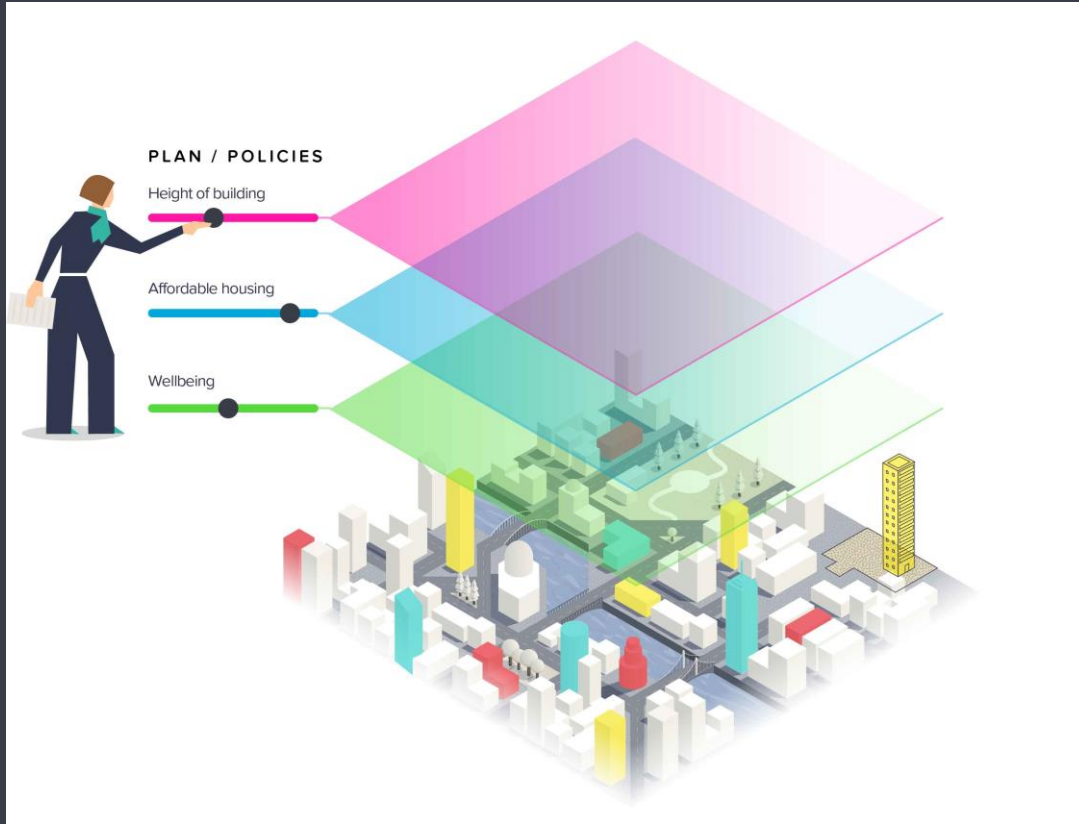
- [employment growth options study executive summary report \[pdf, 91.81Kb\]](#)
- [employment growth options study executive summary map \[pdf, 3.18Mb\]](#)

# Consolidate, open and diversify planning data



## 2. Flexibility



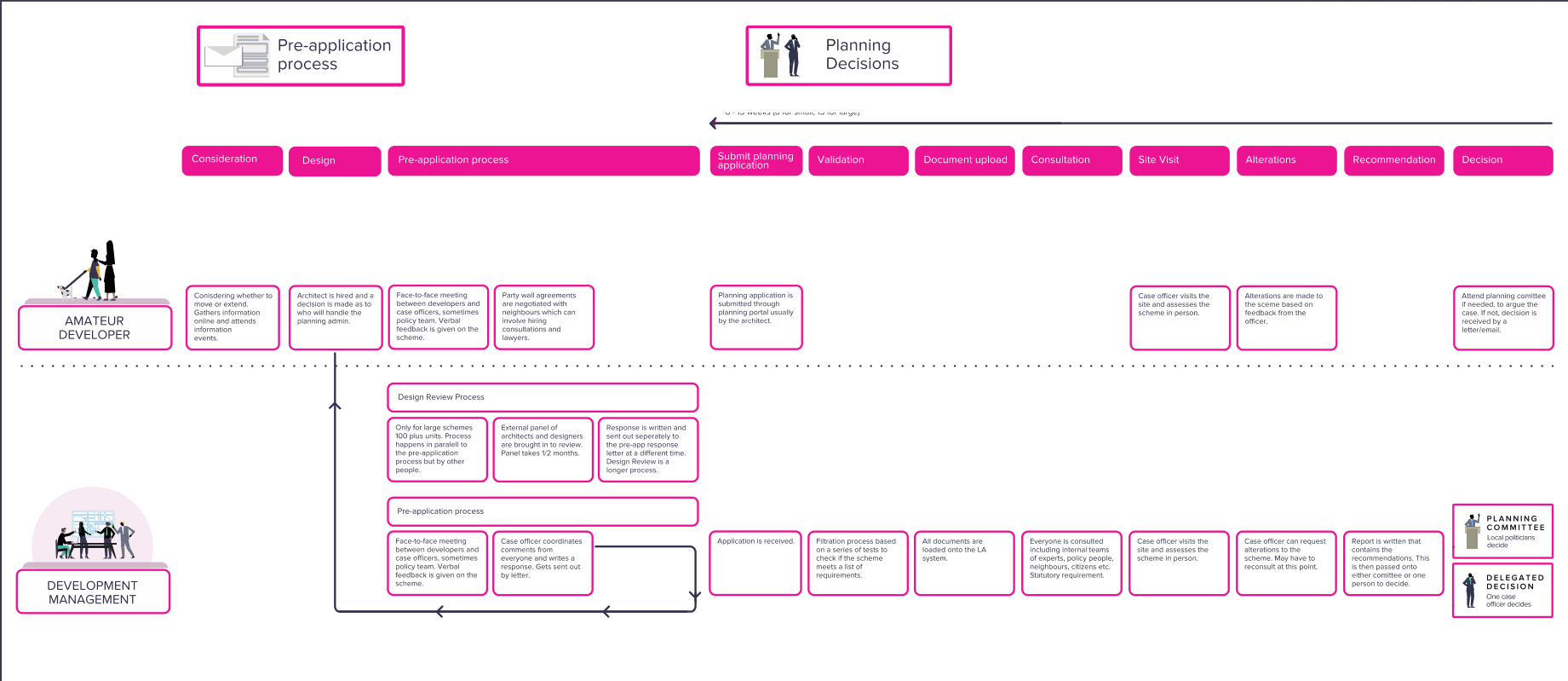


Policies that can be rapidly and individually iterated in response to live data on outcomes



# 3. Application process

# Opaque and confusing process



Overly reliant on experts

Team: PLC

Application Number: 16/01885/PRDE Date Received: 28/9/16

Address: Earlswood, Plymouth Road, Plymouth, PL3 6EE

Fee Due £86 Received £ RM 86 Balance £ 8620

Receipt Details: 00205626

Ward: Efford Hipson

Current Enforcement Case: No Employee/Member: No

Pre application Received: No

Previous applications: SEE HISTORY SHEET ON WISDOM

Booked in by (initials): SC OR NO HISTORY

Constraints	Complete	Constraints	Complete
Conservation Area	X	Article 4	
Listed Building	X	Airport Safeguarding	X
Setting of Listed Building	X	Classified Road	X
Food Zone	X	Strategic Cycle Network	X
Tree Preservation number	X	Ancient Monument	X
Quality Management Area	X	Coastal	X
Conservation Zones	X		
Other Rights Removed (app no's)	X		
Other constraints:			

Allocated to: CC By: L.B Date: 29.9.16

Description: single storey extension

ETR Code: 26 Committee/Delegated: Fast tracked: Yes / No

P-Code: 2016 P0810

Is the application retrospective: Yes / No If yes, please notify your Team Leader

S106 - Delete app ack and send 'app ack DT received' letter  
Send copy of S106 memo, app form, 88P site plan and copies of title deeds to officer

Press Advert Reason(s) Tick

**PLANNING**  
Plymouth City Council, Cn  
T 01752 304366  
E planningconsents@plym

Application for a  
Town and Cou

Town and Country P

You can complete and submit

Publication of applications  
Please note that the information y  
Authority's website. If you require

Please complete using block capitals  
It is important that you read the acc

1. Applicant Name and Add

Title: MR First name

Last name: DAVIES

Company (optional):

Unit: Earlswood House number:

House name: Earlswood

Address 1: Plymouth

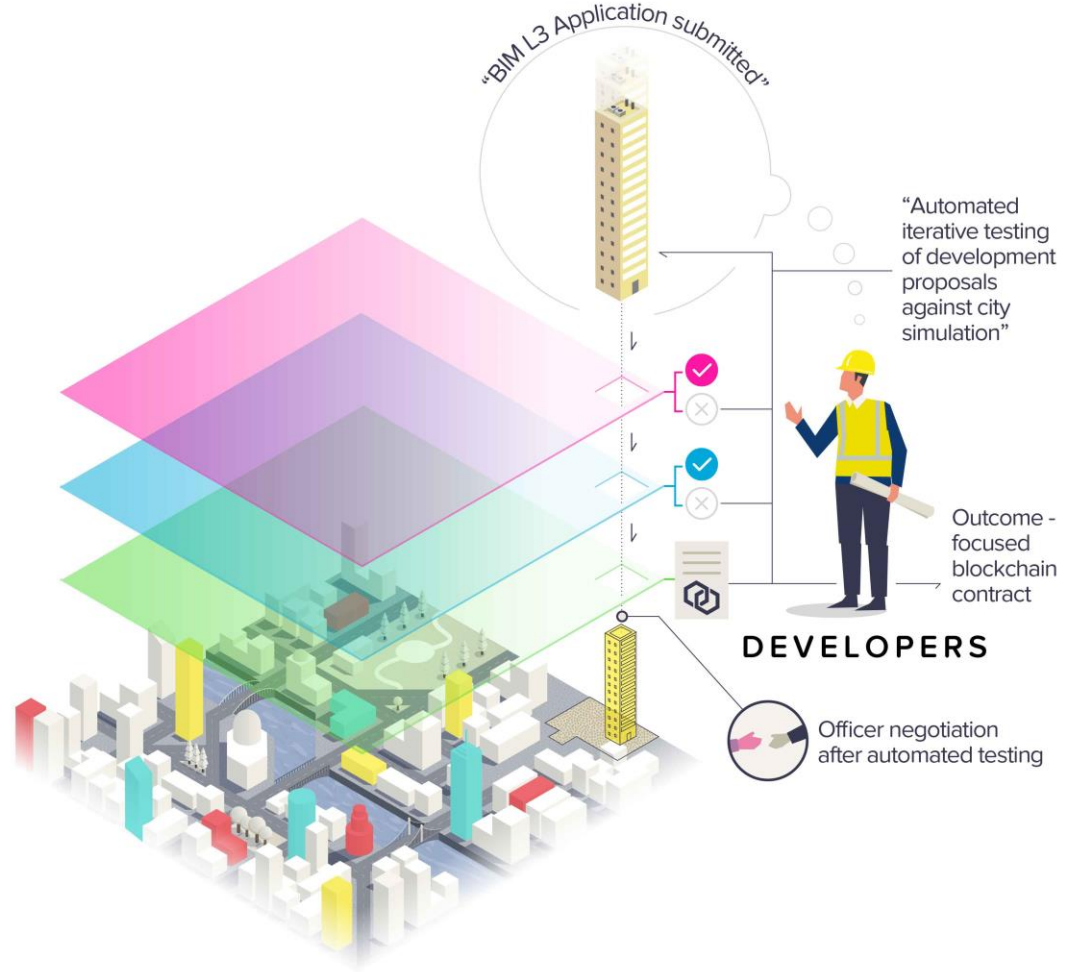
Address 2: Plymouth

Address 3:

Country:

Manual and analogue processes

Automated iterative testing of development proposals against policies prior to submission



## 4. Citizen engagement

**WEST NORWOOD LIBRARY & CINEMA**  
The Wood Cinema

**PICTUREN**

West Norwood Library & Cinema  
The Wood Cinema

Lambeth

**CONTRIBUTORS TO THE NORWOOD FORUM**  
The Wood Cinema

**Norwood Forum**  
The Wood Cinema

**THE RETRIEVED**

**BLACK HISTORY MONTH**

# PLANNING NOTICE

## London Borough of Lambeth

(and associated legislation)

An application has been received for the following development:

**Proposal:** Redevelopment of existing building including part 2, part 3 (plus basement) extension to provide library (use class D1) and a 4 screen cinema (use class O2) with ancillary cafe/bar, associated cycle parking and landscaping. Alterations to the existing roof and front elevation with the insertion of new windows and display of signage; minor external alterations to the East and North elevation.

**At:** Library And Hall, 1 - 7 Norwood High Street, London SE27 6JU

**By:** Mrs Lyn Goobly      **Application reference:** 15/04179/RG4

**View plans and documents at:**

our website [www.lambeth.gov.uk/planningdatabase](http://www.lambeth.gov.uk/planningdatabase)  
At Basin Tana Library, 320 T320 1067, during normal opening hours (Please telephone to ensure the application has been received).

**Have your say on the proposals:**

Online [www.lambeth.gov.uk/planningdatabase](http://www.lambeth.gov.uk/planningdatabase) using reference "15/04179/RG4"  
Email [Planning@lambeth.gov.uk](mailto:Planning@lambeth.gov.uk), quoting the reference number, your name and address.

All comments are public and in the event of an appeal will be shared with the Secretary of State's Planning Inspectorate. Confidential or anonymous comments will be disregarded.

Comments must be received by **28th August 2015**. This notice may be removed after this date. Normally there will be no further publicity of any modifications to the application unless a new application is required.

Use your smartphone and a QR code to access the application.

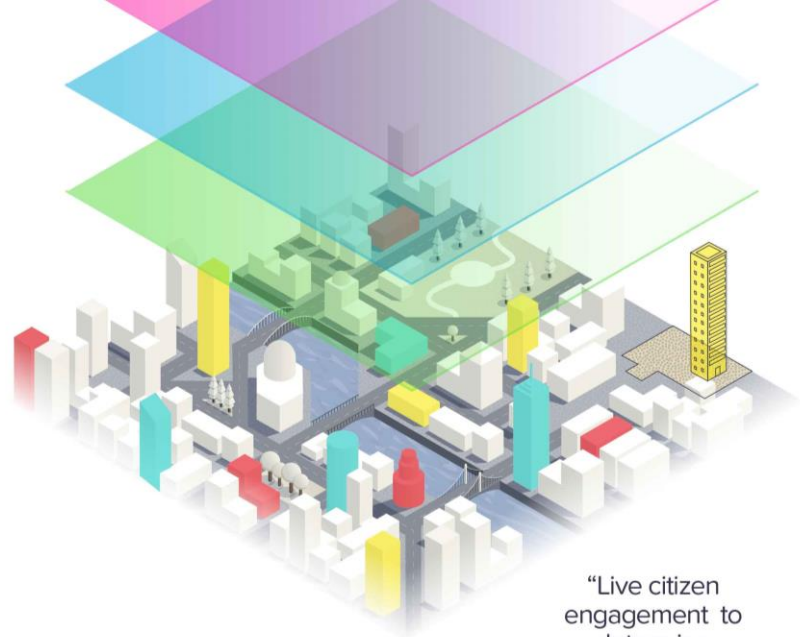


Site Notice Posted Date: 1 August 2015



Engage citizens early on in **policy** making and on desired **outcomes**.

Provide realistic **real-time visualisations** of developments



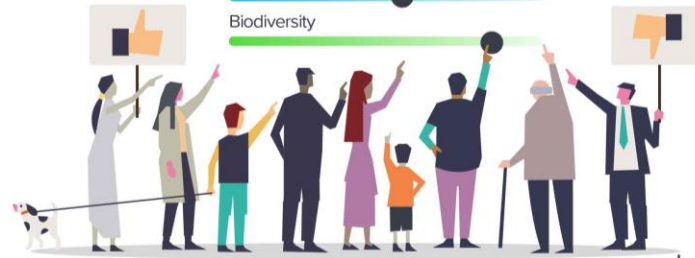
“Live citizen engagement to determine plan/policies”

**OUTCOMES**

Affordable housing

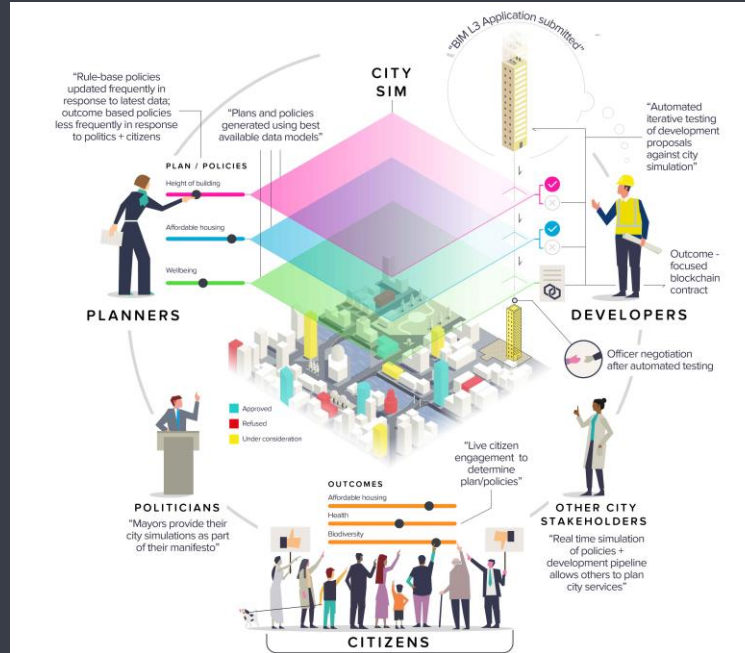
Health

Biodiversity



# OPEN CALL

- **87** respondents, 10 winners
- **AR Plans** – Linknode
- **Automated Householder Extension** – Wikihouse/LB Southwark
- **Pdfs for Planners** – Leeds ODI
- **A clearer plan** – Leeds ODI



- **Neighbourhood Planning Data** – HACT/OSCI
- **Our Land** – Placechangers
- **3D Plans** – Toolz
- **StreetScore** – Create Streets
- **Social Infrastructure Modelling** – LB Hackney
- **Green Infrastructure Identification** – The Behaviouralist



# QUESTIONS

