The planning and property data ecosystem in Ireland

Prof. Rob Kitchin

Maynooth University Social Sciences Institute and Department of Geography

data stories

Maynooth University
National University of Ireland Maynooth
Social Sciences Institute

European Research Council
Established by the European Commission

The Data Stories project

Investigating the underlying evidence base for housing, property and planning

These data are central to how places are understood and managed

They inform government policy, shape public perception, and guide billions of euros of investment relating to land use and development, public and private housing, homelessness, commercial real estate, and infrastructure

There is a wide variety of planning and property data held across numerous stakeholders, some of it made available as open data, though most of it is closed

SAPSED SAPSEDNAME CSO_Data CSO_Name Pop02 Pop06 Pop11 ActC0211 PcC0211 ActC0611 PcC0611 MPop11 PcMPop1: FPop11 PcFPop11 PPHU11 PPHU06 ActPPH06 PcPPH061 UnC

Planning and property data ecosystem

Land
Land use, coverage, conditions, ownership, etc.

Planning
Development plans, zoning, permissions, enforcements, etc.

Stock
Numbers, type, floor area, beds, amenities, site size, Energy rating, vacancy, dereliction, obsolescence, architectural style, etc.

Household/population demographics
Size, composition, socio-economic status, migration, etc.

Housing/development finance
Loans, mortgages, interest rates, taxes, grants, etc.

Housing management (LAs/landlords)
Stock, tenants, payments, maintenance, etc.

Construction activity
Units, commencements, stages, completions, etc.

Employment and materials
Workers, apprenticeships, courses, building supplies, etc.

Market activity and conditions
House prices, rental prices, transaction volumes, rates valuations, land values, landlord/tenant numbers, evictions, etc.

Homelessness; direct provision; refugee accommodation; Traveller accommodation; student residences; nursing homes

Housing actors
Agencies, developers, AHBs, landlords, real-estate, banks, etc.

Contextual factors
Infrastructure, Services, environment, etc.

Data actors: State

Policy

- Housing Agency
- Department of Housing, Local Government and Heritage
- Department of the Taoiseach
- Dept of Environment, Climate Action and Communications
- National Statistics Board
- Eastern and Midland Regional Assembly

Delivery

- DCC
- SDCC
- Fingal
- Dublin Region Homeless Executive
- Land Development Agency
- Dept of Children, Equality…
- DLR
- Reception and Integration Agency

Regulation

- Local Government Management Agency
- Property Registration Authority of Ireland
- Valuation Office Ireland
- Residential Tenancies Board
- Office of the Planning Regulator
- An Bord Pleanala
- National Building Control and Market Surveillance Office
- Environmental Protection Agency
- Heritage Council
- National Oversight and Audit Committee
- Sustainable Energy Authority of Ireland
- Office of the Government CIO
- National Inventory of Architectural Heritage
- Property Services Regulatory Authority
- Approved Housing Bodies Regulatory Authority
- International Protection Accommodation Services

Finance

- Department of Social Protection
- Department of Finance
- Department of Public Expenditure and Reform
- Central Bank
- Revenue Commissioners
- Housing Finance Agency
- National Treasury Management Agency
- National Asset Management Agency

Data producers/analysis

- Central Statistics Office
- DPER Open Data Unit
- National Economic and Social Council (NESC)
- Economic and Social Research Institute (ESRI)
- All-Island Research Observatory
- Ordnance Survey Ireland
- Oireachtas Services
- Dublinked
- Irish Spatial Data Exchange
- Irish Government Economic and Evaluation Service (IGEES)

Data actors: Business

Real-estate consultancies

- Savills
- CBRE
- IPUT Real Estate
- Sherry Fitzgerald
- BNP Paribas
- Lisney
- JLL
- Knight Frank
- Cushman-Wakefield
- Hooke & MacDonald

Real-estate platforms

- Daft.ie
- Myhome.ie

Industry groups

- Property Industry Ireland (IBEC)
- Irish Institutional Property
- Hardware Association Ireland
- Construction Industry Federation
- Institute of Professional Auctioneers & Valuers
- Residential Landlords Association of Ireland
- Irish Property Owners Association
- Construction Network Ireland

Banking/finance

- AIB Economic Research Unit
- Davy
- Goodbody
- Online Applicatior
- Bank of Ireland
- Homebond
- Initiative Ireland

Surveying/inspection data

- Murphy GS
- Blue Sky
- D3D
- i3PT

Property data/analytics

- Geodirectory
- GAMMA
- CIS Construction
- Dres
- 4property.com
- Derilinx
- Building Information Ireland
- Mapalerter
- iPPi
- VU City
- RG-DATA
- propertyweek.ie
- Geowox
- Agile Planning

Data actors: NGOs

Service providers/advocates

- Threshold
- Simon Community
- Focus Ireland
- Cluid
- Crosscare
- Peter McVerry Trust
- Alone

NGOs

- An Taisce
- Irish Green Buildings Council
- Irish Refugee Council
- Irish Council for Social Housing
- Irish Architectural Foundation

Community advocacy

- Dublin Democratic Planning Alliance
- Inside Airbnb
- Community Action Tenants Union
- Students Union Ireland
- Uplift
- Raise the Roof Campaign
- Pavee Point Travellers Centre

Professional bodies

- Irish Planning Institute
- Royal Institute of Architects of Ireland
- City and County Architectural Association
- Society of Chartered Surveyors
- Institute of Engineers of Ireland

International

Regulation/scaling data

- ESPON
- Eurostat
- European Central Bank

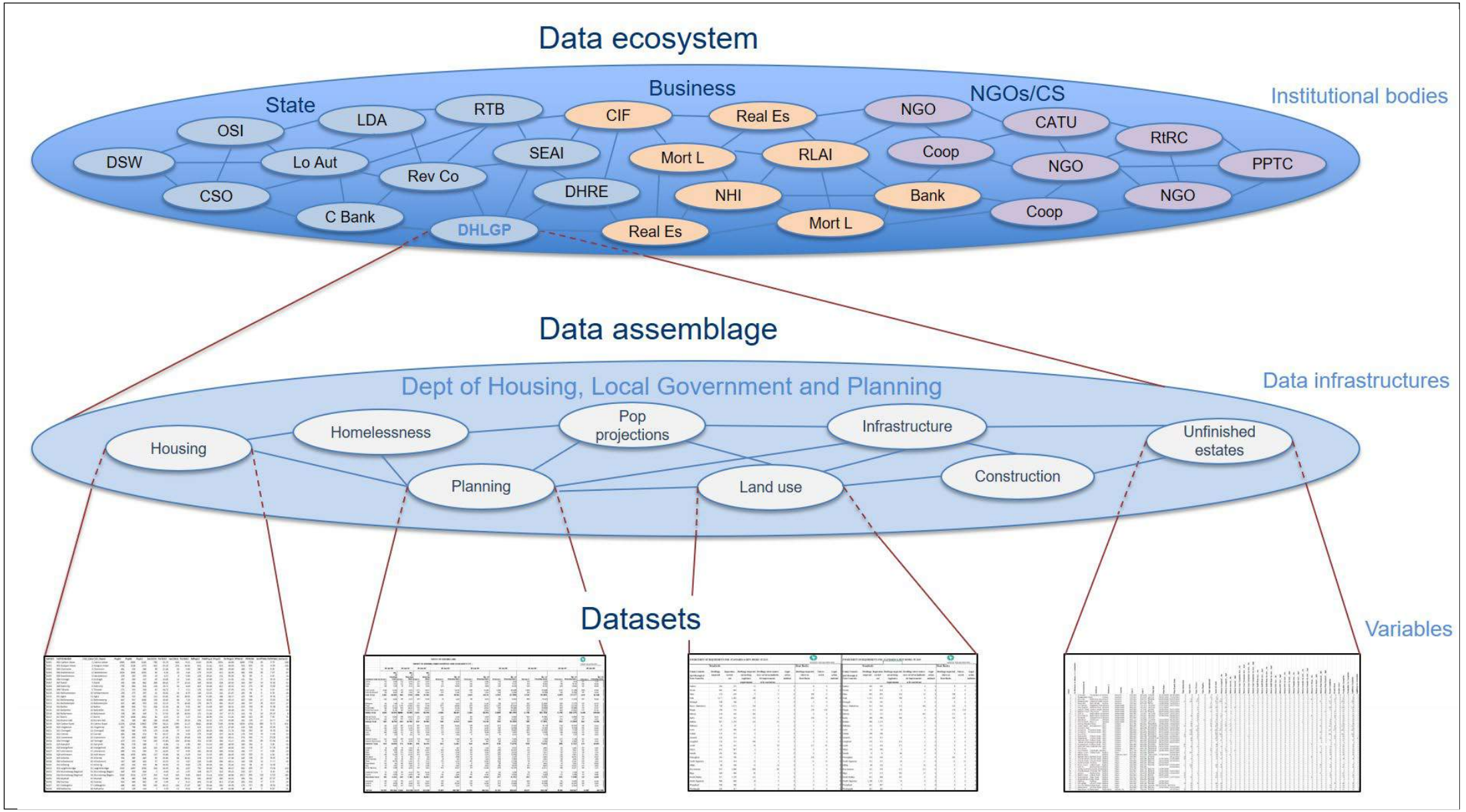
Financial/investment

- European/Global real-estate
- European/Global investment funds

Consultancy/Analysis

- KPMG Future Analytics
- Housing Europe
- EY DKM

Phase 1: Mapping the planning and property data ecosystem



Knowledge Hub

Planning system at planning authority level

Strategic

(pre-development)

- RA: Regional Spatial and Economic Strategies
- RA: Metropolitan Area Strategic Plans
- LA: County Development Plan
- LA: Local Area Plans

- Environmental Report
- Natural Impact Report (NIR)
- Strategic Flood Risk Assessment (SFRA)
- Area Based Transport Assessment (ABTA)
- Statement of Character (SoC) for Architectural Conservation Area (ACA)
- Habitats Survey and Green Infrastructure Mapping
- Surface Water Management Study
- Urban Regeneration Framework
- Social Infrastructure Audit (SIA)
- Settlement Capacity Audit (SCA)
- Housing Need Demand Assessment (HNDA)

Development & Control

(development pipeline)

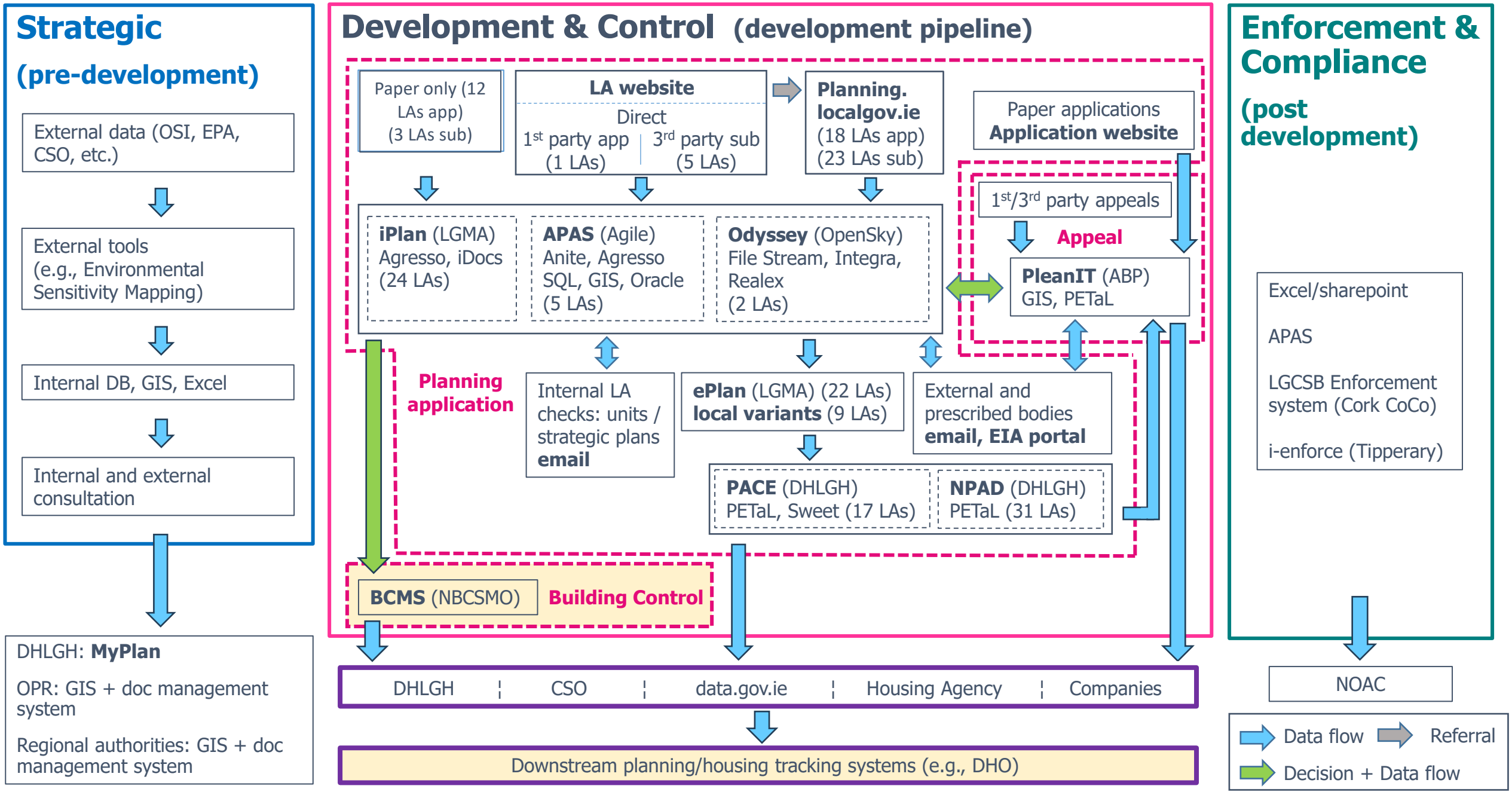
- Planning permissions
- Appeals
- Building control

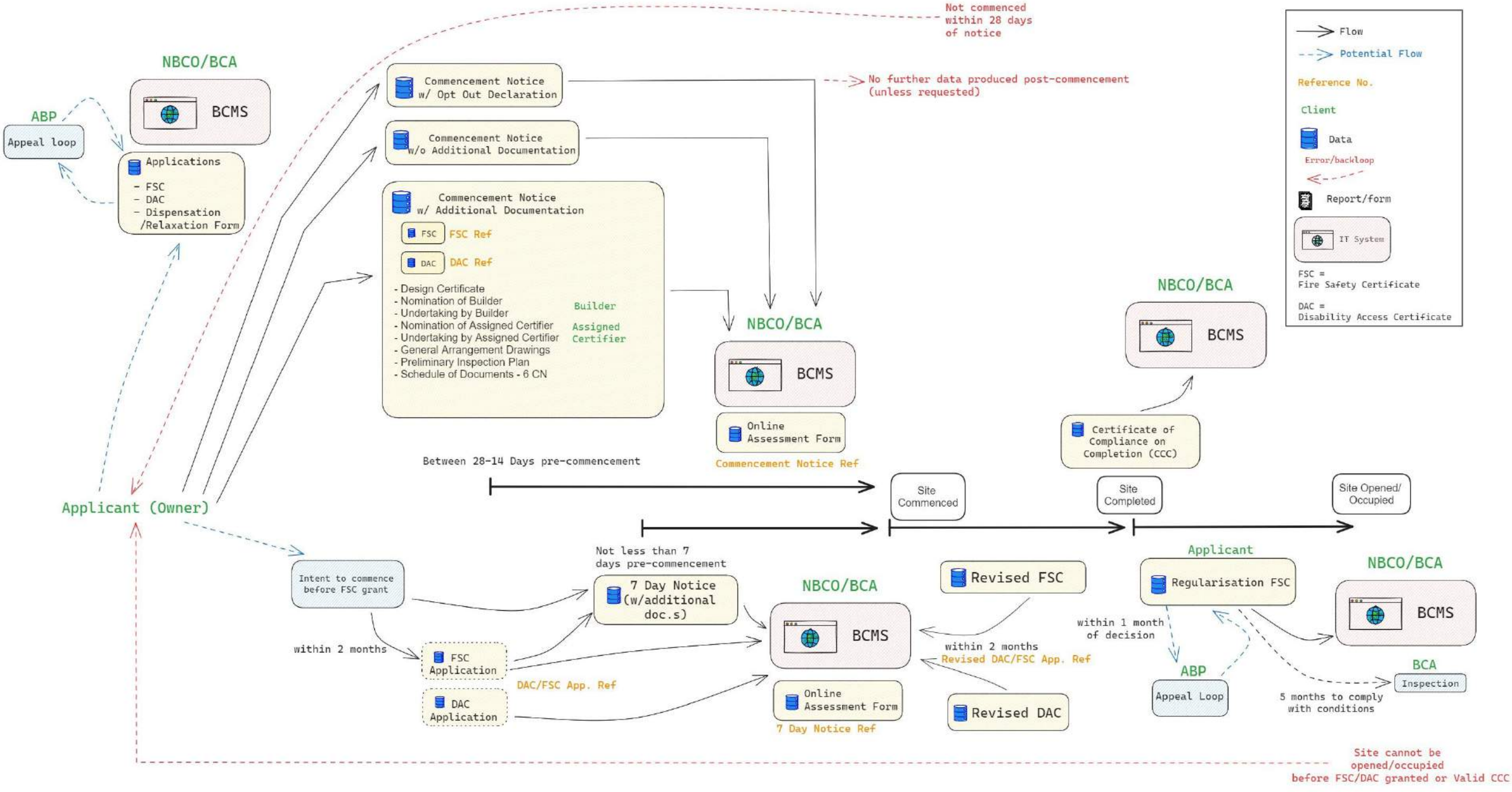
Enforcement & Compliance

(post development)

- Inspection
- Retention
- Legal enforcement

Planning IT systems and data flows





Plus full data dictionary

Open housing/planning tracking systems

- DHLGH Housing Delivery Tracker (https://storymaps.arcgis.com/stories/ab12ed6d50a540e2891170c24955ff49)
- Housing for All dashboard (https://public.tableau.com/app/profile/statistics.unit.housing/viz/HousingforAll/0_Overview)
- Housing Agency data hub (https://www.housingagency.ie/data-hub/welcome-housing-agency-data-hub)
- OPR Digital Planning Hub (https://opr-hub-oprgis.hub.arcgis.com/)
- Dublin Housing Observatory (https://airomaps.geohive.ie/dho/)
- Regional Development Monitor (https://rdm.geohive.ie/)
- Myplan Zoning Map Viewer (https://www.myplan.ie/zoning-map-viewer/)
- National Planning Application Database (NPAD) (https://www.myplan.ie/national-planning-application-map-viewer/)
- Dublin Housing Task Force mapper (https://housinggovie.maps.arcgis.com/apps/View/index.html?appid=3fa56a71ee774f9487d14a9e5336b00c)

AIRO
All-Island Research Observatory
An tIonad Breathnaithe um Thaighde Uile-Éireann

Dublin Housing Observatory

https://airomaps.geohive.ie/DHO/

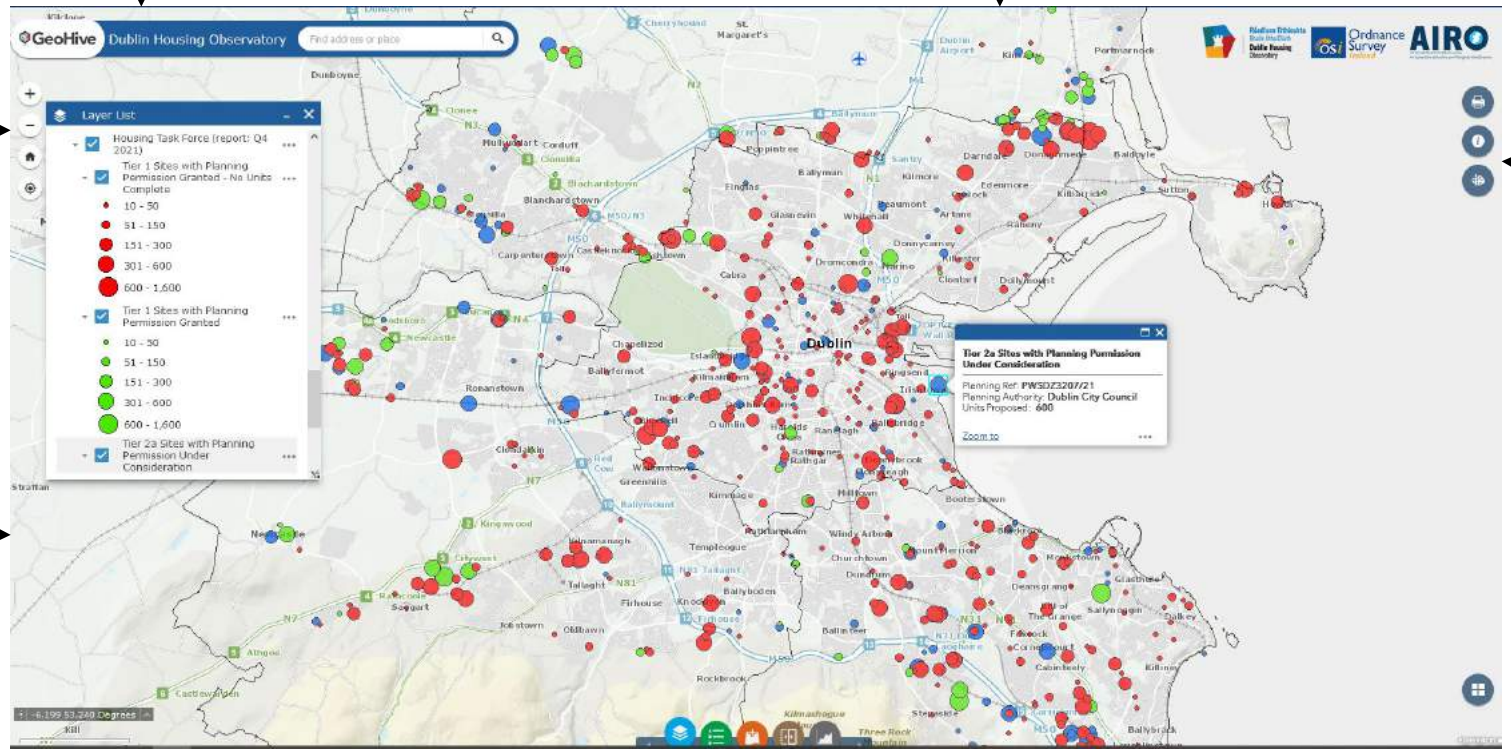
Other (CSO, Census)
Household tenure, type, composition
Vacancy
Year built
Heating, water supply
Population density
Social deprivation **(POBAL)**
Principal economic status
Family cycle stage
Nationality and ethnicity

Market conditions
RTB rental index **(RTB)**
RTB market profile **(RTB)**
HAP payments **(DSP)**
Property price index **(PRSA)**
Local property tax bands **(Revenue)**

Construction activity (LAs)
Completions
Planning permissions grants
PP under consideration

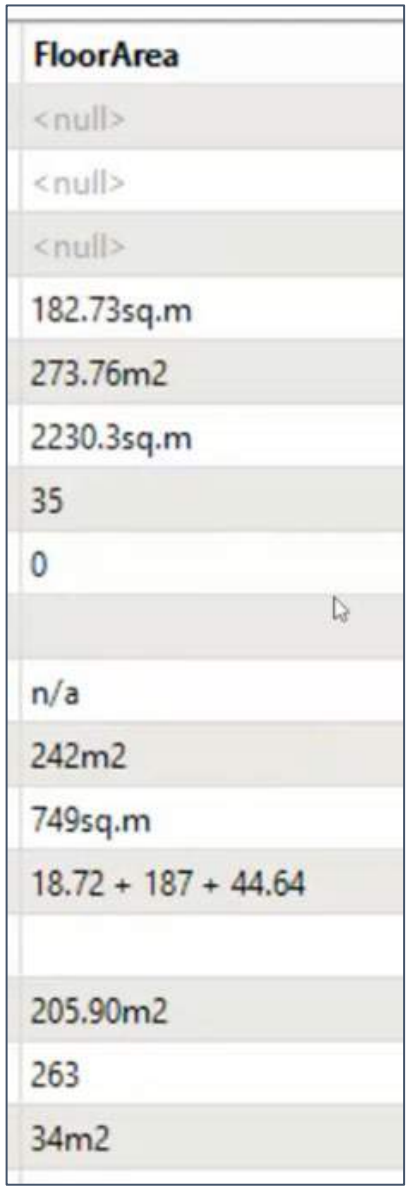
Zoning and planning (LAs)
Residential phasing
Unfinished housing
Planning applications
Strategic Housing
Development Applications

Infrastructure and services (Geodirectory)
Transport
Education locations
Health services
Amenities



Data issues in the planning system

- Variances in how systems are configured
- Variances in workflow across systems
- Variances in how the same systems are being used by different LAs
- Variances in how LAs and individual operatives do data work
- Variances in data recording (classes, units, etc.)
- Lack of consistency with how data are categorised across systems and across local authorities
- Just because fields are standard does not mean data entered are
- Lots of potential issues with system flow, error, potential points of failure
- Lack of consistent IDs that allow tracking across IT systems/pipeline



Development & Control: iPlan, APAS, Odyssey

Number	Sub-criteria	iPlan	Odyssey	APAS
Required field	total	296	63	26
	without duplicate	65	40	21
Modifiable field	total	961	616	215
	without duplicate	265	409	194
Type of field	total free text (number or text)	585	304	76
	without duplicate	163	190	68
	total Check box	9	48	55
	without duplicate	6	42	50
	total Drop down	135	206	38
	without duplicate	57	135	31
	total Date	232	58	46
	without duplicate	39	42	45

		iPlan	Odyssey	APAS
Report generation	Consultant report	x	x	x
	New report	x	x	x
	Existing report	x	x	x
	Supplementary report		x	
	Internal report	x	x	x
	External report	x		x
Application submission process	Planning Applications	x	x	x
	Main Location	x	x	x
	Planning Applications Details	x	x	x

Required fields

For applicant and application

iPlan	Odyssey	APAS
Address 1	Address 1	Address [Applicant/Agent]
	Address 2	
	Address 3	
Devt. Address		
Application Status	Status [Applicant]	
Submission Status		
Application Type		Application Type
		Development Type [Statistics Details]
	First name	Applicant
	First name [Applicant]	
	Last Name	
	Name & Address of Owner [Application]	
		Telephone [Applicant/Agent]
Proposed Devt		
Surname	Surname [Applicant]	
		E-Mail [Applicant/Agent]
		Plans Prepared By
		Legal Interest
Surname/ Company	Surname/Company	
	Company name	
	Address of Company [Application]	
	Brief description of case [Applicant]	
	Reg. No. of Company [Application]	
	Reg. Co. Director(s) name(s) [Application]	
Consultants Name		

LEGEND KEY:
Consistent Methodology **Break in Methodology** **No Data Collected**

Table 2: Details of Performance Measurement Indicator Changes, 2014-19

Indicator		2014	2015	2016	2017	2018	2019
H1	**Social Housing Stock**						
1	Number of dwellings provided by local authorities						
2	Number of dwellings in the ownership of local authorities at start of year						
3	Number of dwellings directly added (i.e. constructed or purchased) by local authorities to housing stock						
4	Number of dwellings in the ownership of local authorities at year-end						
5	Number of social housing dwellings in local authorities at year-end						
6	Number of directly provided (i.e. constructed or purchased) social housing dwellings in the ownership of local authorities at year-end						
7	Number of local authority owned dwellings sold in year						
8	Number of local authority owned dwellings demolished						
9	Number of local authority owned dwellings planned for demolition under D/HLGH approved scheme						
H2	**Housing Vacancies**						
10	Percentage of local authority owned dwellings vacant at year-end						
H3	**Average Re-letting Time and Costs**						
11	Time taken (weeks) from the date of vacation of a dwelling to the date in year when a new tenancy had commenced in the dwelling, averaged across all dwellings re-let in that year						
12	Cost expended (€) on getting dwellings re-tenanted ready for re-letting, averaged across all dwellings re-let in that year						
H4	**Housing Maintenance Cost**						
13	Expenditure (€) during year on the repair and maintenance of housing bought or built by local authorities complied on a continuous basis from 1 January to 31 December in that year, divided by the number of directly provided dwellings in the local authority stock at year-end						

Local Authority National Performance Indicator Trend Report, 2014-2019 (6 years)

87 sub-indicators, only 43 for all years

Housing 18 sub-indicators, 9 for all years, only 4 not altered

Number of original consistent indicators 2014-2019 and still in use	Number of original modified indicators 2014-2019 and still in use	Number of original indicators discontinued during period	Number of new indicators introduced during period and still in use	Number of new indicators introduced during period modified and still in use	Number of new indicators introduced but discontinued during period	Total
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	
43	6	2	23	11	2	87
49%	7%	2%	26%	13%	2%	100%

Indicator		2014	2015	2016	2017	2018	2019
H5	**Private Rented Sector Inspections**						
14	Number of registered tenancies in local authorities						
15	Number of rented dwellings inspected by local authorities						
16	Percentage of inspected dwellings that were non-compliant with Standards Regulations						
17	Number of non-compliant dwellings that became compliant						
H6	**Long-term Homeless Adults**						
18	Number of adult individuals in emergency accommodation that are long-term (i.e. 6 months or more within the previous year) homeless as a percentage of the total number of homeless adult individuals in emergency accommodation at year-end						

Key issues across data ecosystem

- Access and openness
- Data continuity (time), stability (definition) and consistency (across agencies)
- Interoperability: indexical data and statistical geographies
- Gaps: scope and coverage
- Spatial/temporal resolution
- Data quality and accessible metadata
- Representativeness and error: extent data reflects reality
- Methodological transparency and opacity of data systems
- Data disputes (e.g., vacancy, commencements, completions, build costs, number of landlords, homelessness)
- Capacities, skills, resourcing

Statistical Geographies

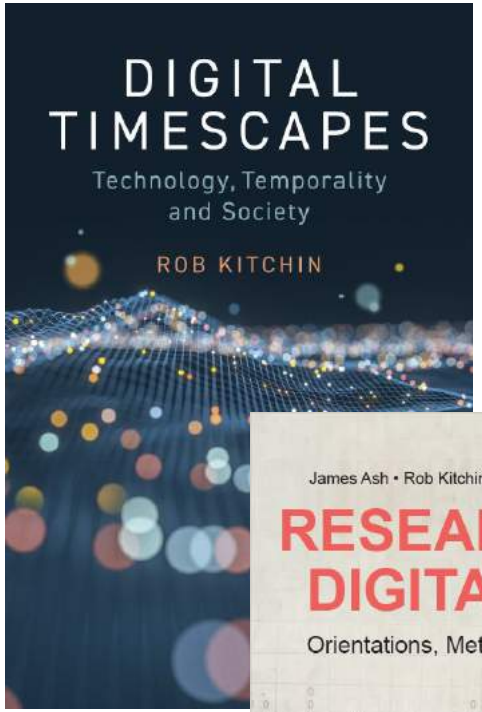
x, y coordinates
Building ID
Planning ID Ref No
Eircode
Estate name
Street address
Small areas
Townlands
Parishes
Electoral Divisions
Municipal districts
Settlements
Local Electoral Areas
Eircode routing key
Constituencies
Local authority
Counties
Gaeltachts
Regions 1 (NUTS3)
Regions 2 (NUTS 2)
Provinces
State (NUTS 1)

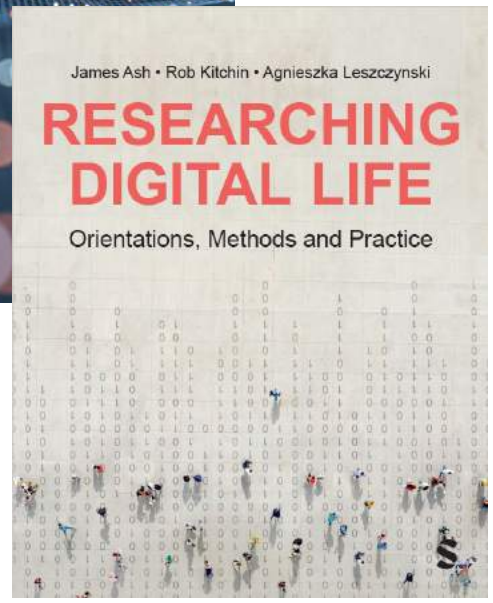
Potential value

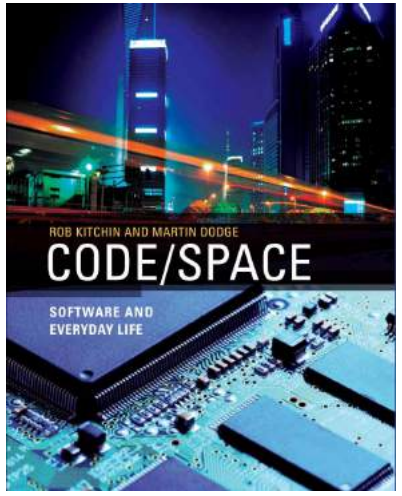
- Yes, there are lots of issues
- But there is also an enormous amount of useful data hidden and locked in systems – across state, business and civil organisations
- Question is how to improve and open those data?
- First step is to:
  - chart the data ecosystem – within systems and how data flows and is transformed across systems
  - Understand what the various issues are and work out how to fix them
- That's what we're trying to do on the Data Stories project

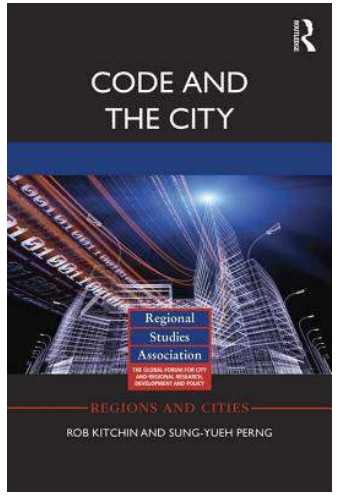
data stories

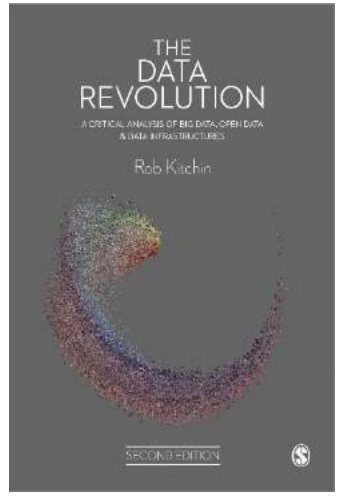
Rob.Kitchin@mu.ie
https://www.maynoothuniversity.ie/people/rob-kitchin

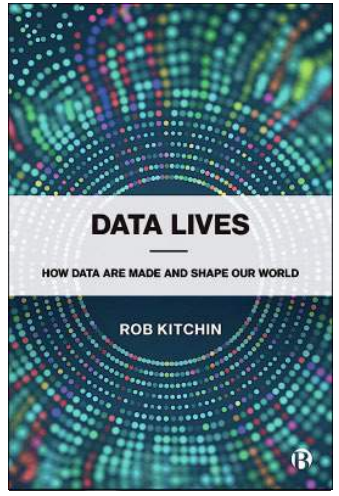


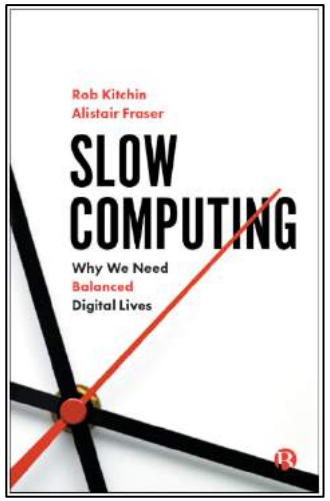


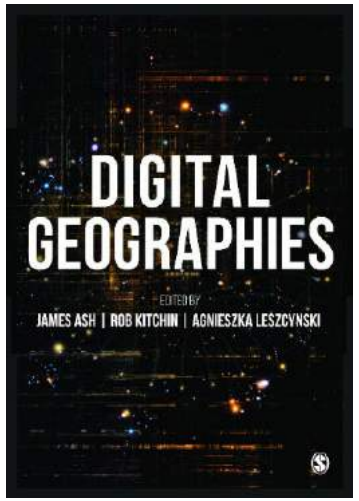


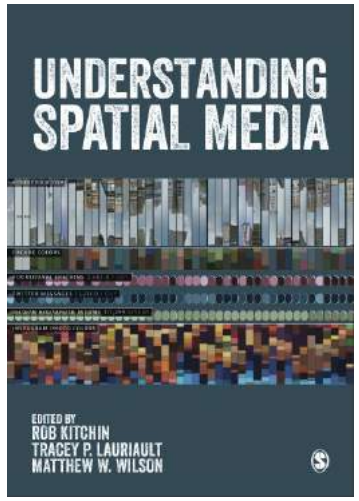


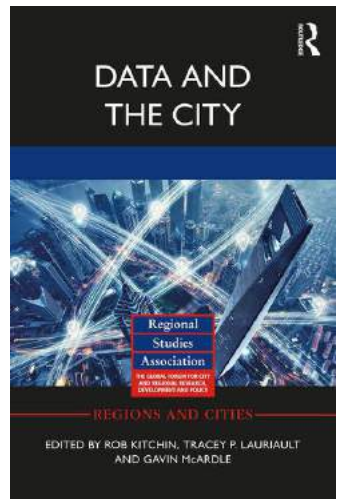


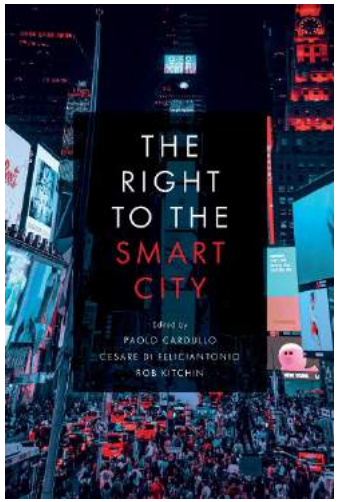












Phase 2

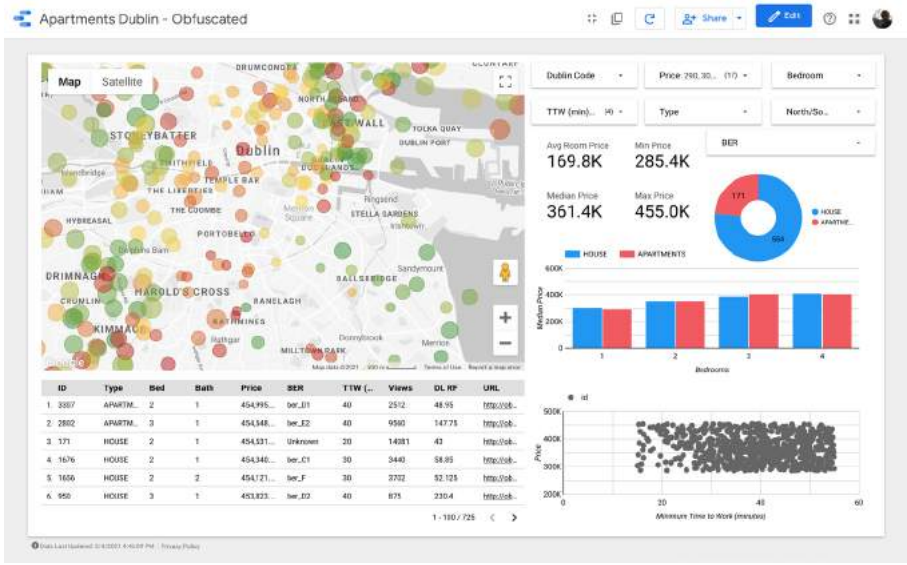
Producing Data Stories

12 Case studies

- Interviews
- Walk-through observation
- Ethnographies
- Research-creation

- 3 data stories per case study

Data Story 1. Research team



Data Story 2. Creative Writer/Artist

'But I'm not actually behind with my rent right now, am I?'

'I'm afraid you're three days late. This is the third month in a row you've been late. In that sense you're a risk to the City and there are others on the housing waiting list who deserve city-supported housing.'

'So, you're going to evict us because of what some bullshit algorithm thinks might happen?'

'That's one way of looking at it.'

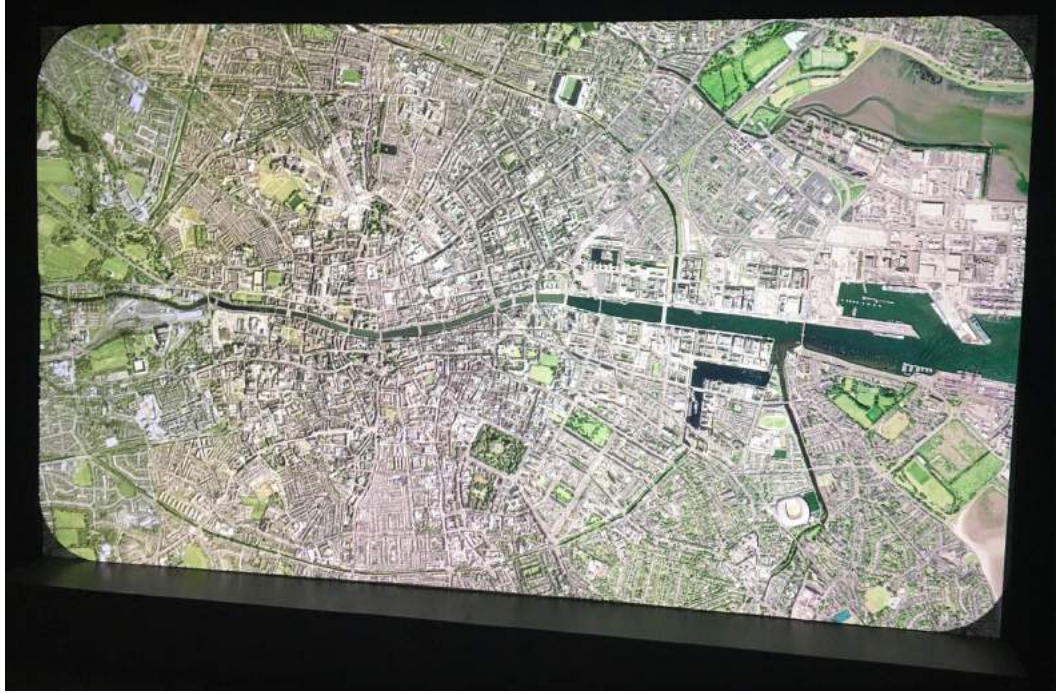
'One way! It's the only way. I've a wife and three kids. Where are we meant to go?'

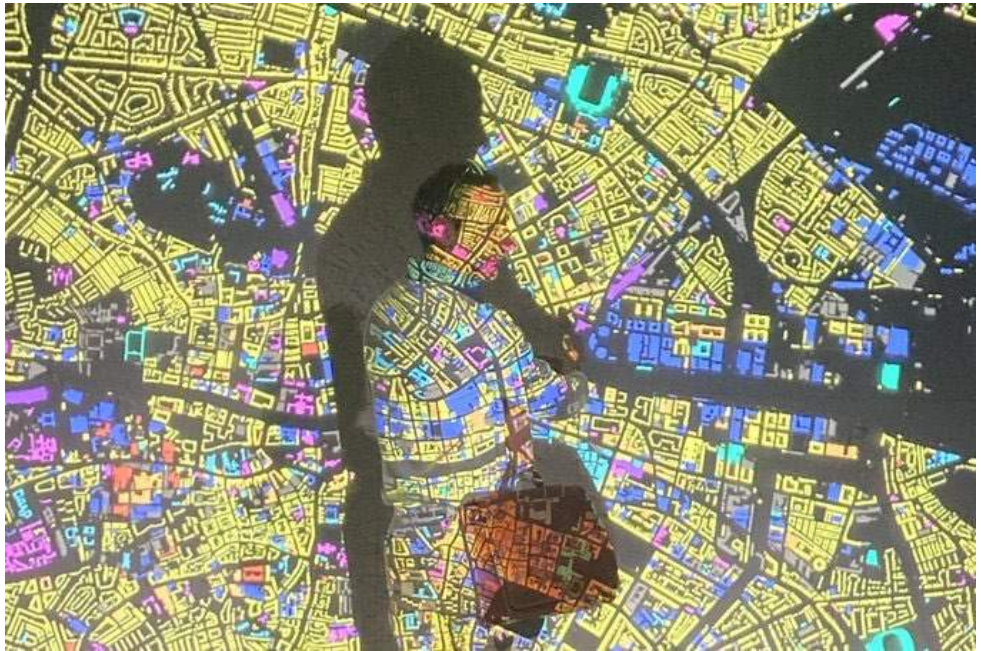
'That is your issue, Mr Jenkins. There are a wide variety of other housing options in the city from short term and long-term private rental through to home ownership.'

'And homelessness!'

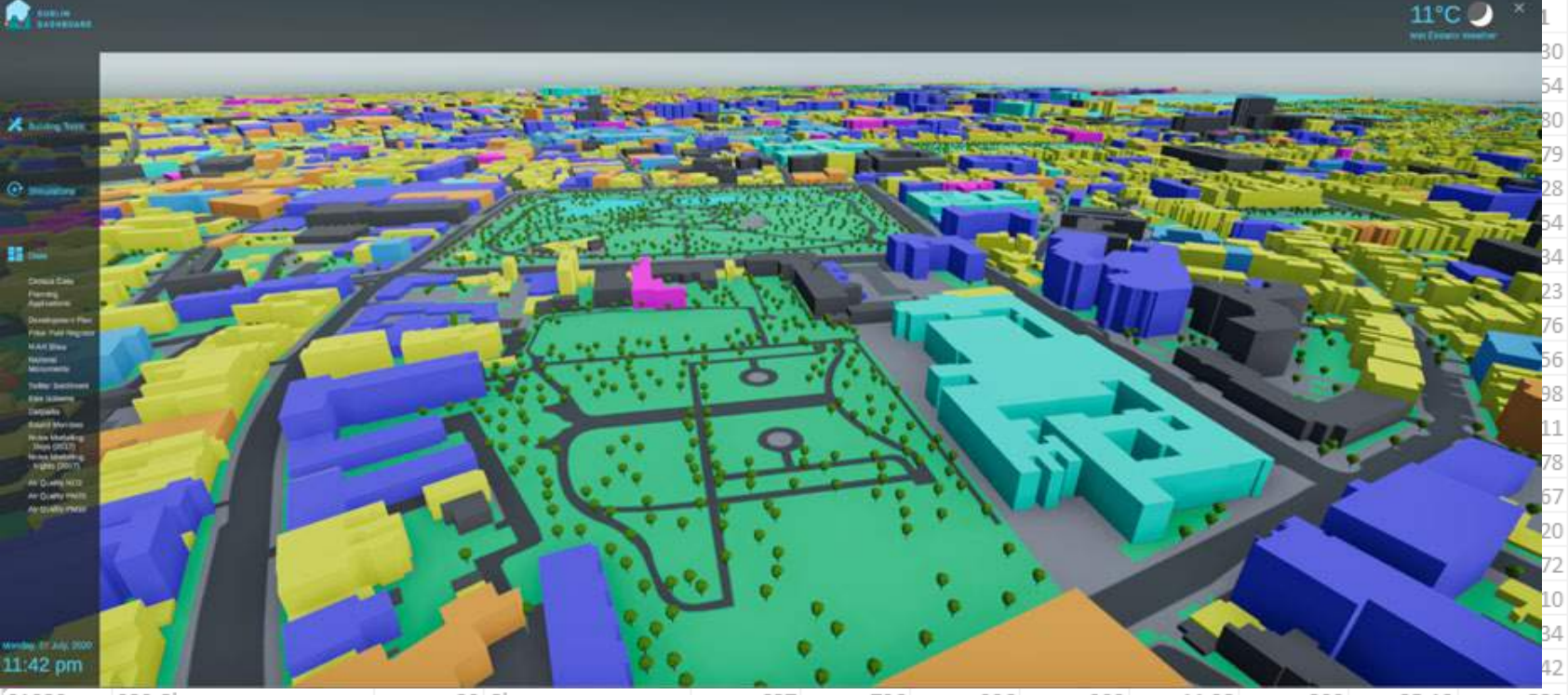
'We don't tolerate homelessness, Mr Jenkins.'

Data Story 3. Stakeholder team





data stories



PHU06 ActPPH06 PcPPH061 UnC

data stories

| | | |