

Executive Summary

This report summarises the findings from two sandpits/workshops on housing and planning held in March 2020 for the R20 Task Force. The sandpits brought experts together to explore ideas and solutions for how to retrofit and decarbonise the city's housing stock and planning for net zero-carbon built environment.

Discussions are wide-ranging, exploring different investment, regulation and legislation solutions and interventions needed to drive system change. The following areas are identified as key areas to focus further discussion, action and next steps:

- **Action planning and further forums** to bring experts together to explore ideas and solutions and link milestones and actions with the Anthesis baseline report and quantified carbon emission reductions.
- **Developing new business models**, financing solutions and public/private partnerships and collaborations to retrofit and decarbonise the city's housing, with longer term investment and payback models.
- **Differential strategy and prioritisation for the city** identifying interventions, business models and partnerships for different neighbourhoods that will create supply chains and facilitate delivery of R20 as soon as possible.
- **Develop systems thinking** and interdisciplinary working to integrate knowledge, policy and strategy development at different scales (local, regional and national) and across sectors and departments.
- **Evidence based strategy development** to support a more ambitious narrative and action on climate change with extra resource and capacity in planning to interpret evidence, regulation and policy.
- **Communicating an ambitious and integrated narrative** and engagement across the city to bring people along with the transition and the scale of change needed to retrofit the city's housing and built environment.

R20 Task Force

Summary of Planning and Housing Sandpits from a System Change Perspective

Introduction

In March 2020, the first two sandpit for the Route to Zero (R20) Task Force were held bringing together housing and community, and planning and built environment experts to provide ideas and evidence to feed into the City's strategic thinking on decarbonisation. The housing and planning workshops were led by Jane Trethewey, Assistant Director, Housing Development and Maria Dunn, Head of Development Policy, Planning and Development at Birmingham City Council (BCC) respectively. Alongside the baseline scenarios produced by Anthesis, the outputs of these sandpits and future ones will be used to identify potential carbon reduction interventions for the Birmingham R20 Action Plan.

This report provides an interim analysis of the first two sandpits. A fuller analysis will be conducted once all sandpits have been completed and will feed into the R20 Task Force final report. This summary identifies the common or occasionally conflicting themes from sandpit discussions and the potential solutions and interventions needed to drive the systemic change necessary for a just transition to net zero by 2030 (or as soon as possible thereafter). Further details of both sandpits are provided in the two proformas in Appendix A. and the sandpit briefing notes in Appendix B.

What is needed to drive system change?

The proforma to capture sandpit discussion was based on the CIA Framework from the R20 Task Force Terms of Reference and intended to identify the role of BCC and other stakeholders in owning the system change required to drive action at different scales. The broad categories of system change considered were investment, regulation, legislation and intervention.

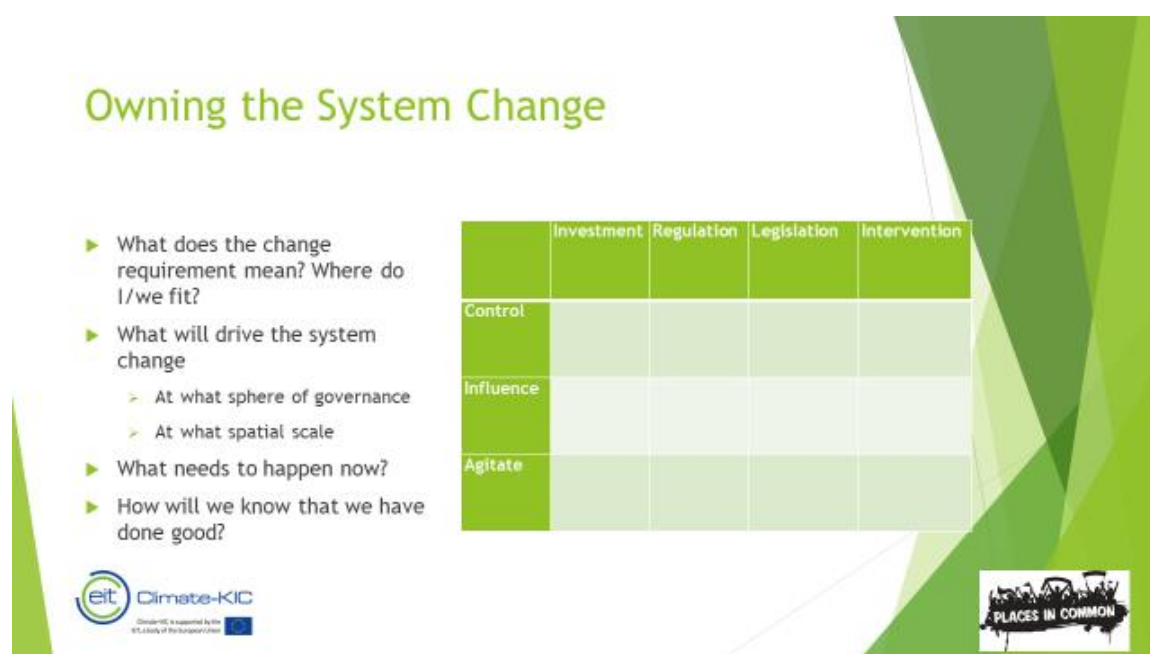


Figure 1: R20 Task Force CIA Framework

Investment

There was broad consensus at the housing sandpit that the technical solutions exist to retrofit Birmingham's housing stock but that the financial and supply chain barriers to doing so are significant (the estimated cost for Birmingham is £11bn). With it being unlikely that full funding will come from national government, new, innovative business models are needed to fund building works and create the supply chains needed. Long term partnerships between the public and private sector are likely to be essential to developing business models where retrofitting is funded by business and industry upfront with longer term repayment.

For new developments, financial viability is the overriding factor in what gets built and where. The condition and location of sites effects the cost to develop land and the market value, so extra costs to the developer to build sustainable/zero-carbon or affordable homes makes some parts of the city less viable. The emphasis on the lowest cost solution, and short term financial viability and economic growth were identified as barriers to system change in both sandpits. If whole life cycle cost, wider economic impact (e.g. health impact and cost to the NHS of poor housing or built environment) and legacy of technologies, retrofits and new developments were main criteria for assessing viability and comparing applications, it was felt that zero-carbon and green solutions would come out on top most of the time.

For this change to happen, a combination of market and policy solutions is needed. There needs to be demand from homebuyers in Birmingham for zero-carbon homes in sustainable, green developments. Developers will be incentivised to finance projects that go above the minimum standards if it's clear that there will be the demand for them. In terms of policy, both locally and nationally there would need to be a revision of regulations and planning frameworks to focus on whole life-cycle cost and carbon impact, with new evidence-based methodologies for assessing viability and compliance.

To facilitate the change to longer term investment in zero-carbon there is a need for the local and regional authority to set and lead the net-zero agenda for planning and development. Long term, strategic direction from the council is essential for creating public/private partnerships and bringing in investment from the private sector. The private sector needs to see a clear commitment to particular policy routes and plans to enable it to invest.



One way for the Council to set the agenda is to explore its role as the owner of significant assets in the City and how to leverage land purchasing and procurement powers to mandate higher local standards or carbon emission reduction clauses. Or to build new partnerships with developers and investors who will take a longer term payback if the risk is underwritten.

Differential and flexible approaches to planning and a retrofitting strategy were discussed in both sandpits and considered necessary for a number of reasons (though challenging to implement). Viability differences and the range of housing and tenure types across the city will require different retrofitting solutions and approaches, and different business models to deliver them. In addition, investment and funding is likely to be incremental and supply chains need to be built from scratch. A differential approach to developing business models can prioritise areas of the city where there is the greatest need (e.g. areas with high levels of fuel poverty) and where there will be the biggest carbon impact.

Regulation

A key theme from both sandpits was the Council's role in going above and beyond the standards set out in national regulations, in particular, Part L of the Building Regulations – [Conservation of Fuel and Power](#). The planning sandpit discussed the Birmingham Development Plan (BDP) 2031 (adopted in 2017) and the need for a revision and update to address the Climate Emergency that should be ambitious and evidence based in setting out where to go beyond national regulation. The lack of resource, capacity and technical knowledge in the local planning team to understand energy statements, building regulations and SAP calculations, and assess different technologies was identified as a barrier to being more ambitious in progressing planning applications. To address this extra resource, training and access to technical information, guidance and materials aimed at lay people would help.

The government recently invited responses for the first round of consultation on [The Future Homes Standard](#) to be introduced in 2025, which proposes changes to the energy efficiency standards in Part L and Part 6 of the building regulations and other related sections. There was also an option in the consultation to increase energy efficiency standards in 2020 as a stepping stone to 2025. Attendees at the housing sandpit had responded to the consultation. There was support for introducing the new standard sooner than 2025 and to be more ambitious.

Increased energy efficiency standards for new and retrofitted homes were welcomed by both groups of experts. They would undoubtedly drive system change by underpinning market growth and supply chain creation for low-carbon heating technologies and building fabric improvements. Regulatory change also provides a level playing field for developers, as they must all adapt at the same time so do not lose out to competitors in terms of viability.

However, regulatory change needs to be backed up by increased monitoring of actual building performance and compliance with design standards. Experts at both sandpits highlighted the performance gap between design stage performance, built performance in terms of energy efficiency and sustainability of buildings and infrastructure. A target-based programme of monitoring of new build and retrofit schemes would be an essential part of delivering a R20 action plan for housing to ensure carbon reduction targets were achieved.

Legislation

The planning sandpit experts discussed a revised Birmingham Development Plan as the city's R20 delivery plan. The BDP sets out a spatial vision and strategy for the sustainable growth of Birmingham for the period 2011 to 2031, but needs revising and updating to deliver the transition to net zero carbon in the remaining period. The declaration of a Climate Emergency was considered legal justification, if challenged, for amending the plan earlier than expected. However there is normally a significant time lag to revise a strategic plan (approximately 3 years), so the Council would have to be ambitious in setting a timeline for revision and adoption. A revised plan could be more robust by, for example, requiring change of use of assets to contribute to net zero.

At the housing sandpit there was agreement that housing needs to be seen as essential infrastructure and hence retrofitting the country's building stock should be much higher priority for local and national policy and funding. National policy needs to be more consistent in its funding strategy and what is rolled out via national schemes so that local strategies don't have to be abruptly changed or abandoned when schemes change. The National Planning Policy Framework (NPPF) was also considered to be inconsistent from a Birmingham perspective and not robust enough to support local planning authorities to

deliver net-zero carbon development. It enables developers to appeal against local decisions on too many occasions due to the emphasis on viability.

From both sandpits there was a sense that there needs to be more of a systems approach to integrating national legislation and policy in local strategy and delivery plans across policy areas such as energy, buildings, planning, transport, and green and blue infrastructure. As an example, a 'fabric first' approach to retrofitting needs to align with a national strategy for decarbonising heating, and subsequent regional plan for deploying different technologies such as heat pumps and heat networks. In terms of green and blue infrastructure, there is a need for evidence-based national legislation and guidance that demonstrates the wider and longer term environmental, social and economic benefits, and sets out how to integrate with existing transport and energy systems.

Intervention

The biggest challenge in terms of retrofitting will be scaling-up interventions and exemplar projects that go beyond minimum standards and regulations to deliver low and zero carbon homes across the city in the next ten years. There was the suggestion that new governance structures at both city and regional level are needed to deliver this scale of change, bring in funding and build supply chains. In the near term, an ambitious attitude and culture is needed within the Council to move forward at speed on revising the Birmingham Development Plan and setting a strategy. Learning from and working in collaboration with other cities with perhaps more progressive and/or radical attitudes towards the climate change agenda was proposed as a way to change attitudes here through sharing of knowledge and best-practice.

A differential approach to decarbonising housing across the city will require analysis and engagement to prioritise areas for interventions and identify the most suitable technologies and retrofit programme to meet the local challenge and context. As an example, the top-down smart homes model where the private sector retrofits homes in exchange for supplying them with energy services and managing energy demand at an aggregate level may be suitable for parts of the city, but perhaps not all. For some neighbourhoods a more bottom-up community/social housing led scheme may be better received where people want to engage with climate change and be part of local planning. A retrofit programme should also consider whether there are neighbourhoods where optimising existing solutions could have a lower carbon footprint if the whole life-time embedded carbon of materials and technologies is considered. The private rented sector was highlighted as requiring an immediate focus in terms of intervention, investment, regulation and legislation due to the proportion of poor quality housing that is in this sector.

There was an argument put forward that the city should look to move away from the economic/clean/low-carbon growth paradigm and language for a just transition, at least in terms of how it engages with communities (as this would be challenging from a policy and funding perspective). There are many synergies between housing, energy, planning, healthy lives and the wider social and economic benefits of a net-zero transition such as new jobs and training that should be communicated to the city and should also inform the city's action plan. There is a piece of work that could be done to bring together and unlock data that shows these wider benefits (e.g. NHS data, natural capital accounting) that can underpin action planning and delivery.



In terms of local (and national) governance there is need for break down the siloes that exist by integrating R20 across government departments. A more interdisciplinary approach would help to break down these siloes identifying synergies and opportunities and avoiding unintended consequences. For example, integrating planning for climate resilience and adaptation with climate change mitigation to reduce urban heat island effects and reduce the likelihood of overheating in homes in the future.

In summary, the City needs to build a narrative around its planning strategy and retrofit programme that sets out a longer term vision that everyone can buy into including local communities, the council and its staff, the regional authority and government departments such as BEIS and MHCLG. The narrative should also engage with developers, investors, business and industry to build partnerships to rapidly scale up delivery across the whole city.

Control, influence or agitate? Where do the council and other stakeholders fit in?

At what sphere of governance and at what spatial scale?

Both sandpits recognised that the council faces significant resource and capacity issues that impacts its ability to integrate and plan for the R20 transition. Lobbying/agitating national government for more resource to increase capacity and expertise in local planning teams is something the WMCA could do on behalf of all West Midlands LAs. However, the current circumstances make the funding landscape for LAs even more challenging than usual so other solutions are needed to bridge this resource and capacity gap. Increased collaboration and partnership with stakeholders across the city could help – the sandpits identified a lot of enthusiasm and good will in the City from a variety of stakeholders to support the council on this journey.

National government, policy and regulations are in many ways seen as barriers to setting and delivering ambitious local policy and strategy. Birmingham can influence and agitate either itself or through WMCA for changes to regulation and legislation and ensure it is feeding in to consultations. However, it has limited control. Devolution of greater powers to the region would obviously enable a greater degree of local control to raise money and enforce standards. In the meantime, the regional authority could build its role in negotiating with national government, brokering finance and integrating planning strategies across the region to present a coherent and consistent regional narrative that leverages funding and greater influence.

Action Planning

The following is a starting list of recommended actions/milestones from the two sandpits that require further discussion:

- Set out timetable for revision/update of Birmingham Development Plan with time and resource requirements
- Review capital asset strategy
- Map natural capital across Birmingham and identify where to reallocate land.
- Birmingham Municipal Housing Trust to review their building spec
- Develop strategic plan for retrofitting Birmingham housing stock with prioritisation/phased approach for different neighbourhoods/house types, including
 - Different retrofit solutions
 - Different business models
 - Information for those who want to retrofit and can afford to pay.
- Set targets for level of retrofitting required by when for different house types/neighbourhoods e.g. in x years it needs to have double glazing, in x years it needs to have insulation etc.
- Set out the role of the Council and partners in facilitating the different stages

Communications and Engagement

A common thread in both sandpits was how Birmingham can be progressive in its climate planning and delivery, and how it can communicate this to the city. A question asked was whether Birmingham advertise its strengths enough, particularly its community orientated attitude and the great work of community organisations. Drawing together community activity across the city would be a valuable activity. The Communication and Engagement Subgroup are already looking at creating a stakeholder map. A better understanding of community organisations across the city will form part of this. Further thought is needed as to how this network could be better supported, resourced and engaged in R20 conversations and action planning.

Another reason for Birmingham to communicate it's progressiveness on climate change is to drive consumer demand in the city for sustainable, zero-carbon homes, technologies and retrofit projects. As identified, some of the transition will need to be funded by consumers so those who can afford to pay should be encouraged to do so. In addition, the private sector will be more incentivised to build sustainably if they see a market advantage in doing so. The narrative that Birmingham's develops should communicate the wider benefits of action to address the climate emergency, focussing on health (e.g. reduced air pollution, warmer homes), social (safer and cleaner environment) and economic (new jobs in the low-carbon sector) factors. It should ask and answer the question of how people want to live their lives in the future.

Planning needs to happen at a range of scales through a differential approach with different levels of engagement with different stakeholders. At the community and neighbourhood level, there are likely to be areas where bottom-up engagement with planning would be welcome and empowering to communities but others where this is less important. At the housing level, there are questions about the level of engagement people want to have with energy. The smart homes model generally assumes people want minimal engagement with their heating systems or electrical appliances. However, a number of housing experts identified the need for more training and engagement with householders on how to use and maintain new technologies such as heat pumps for them to be successfully integrated in to home energy systems. A programme of engagement on housing retrofit will need to consider these a range of communication strategies.



Further expert engagement events were suggested, in particular:

- A housing event with non-housing contributors to explore policy interventions, repeated annually to track progress on action planning and milestones (Low Carbon Homes have facilitated this type of event in Manchester).
- A further sandpit to focus on jobs and the regional economy

Conclusions and next steps:

Action planning: The planning and housing sandpits were useful forums to bring experts together and explore ideas and solutions but there was limited time for action planning and milestone setting. Further work is needed to set a timetable and link with the Anthesis baseline report and carbon emission reductions.

- What follow-on engagement can be organised with experts/stakeholders in the current situation to set actions and milestones for housing and planning?

New business models, financing solutions and public/private partnerships will be needed to retrofit and decarbonise the city's housing, as the full cost to decarbonise is unlikely to come from national government.

- What are the partnerships/collaborations we need to start developing (or renewing) now, locally and nationally, to support this work?
- How do we develop longer-term partnerships with a focus on longer term investment and payback rather than lowest cost solution?

A differential strategy and approach is required that prioritises areas where there will be the biggest impact, identifies different interventions, business models and partnerships for different neighbourhoods, and builds the supply chains to scale-up across the city.

- Who do we need to bring together to develop differential (and deliverable) strategies for different parts of the city and where do we focus first?

NB: The delay to the EBNS sandpit and changed approach provides an opportunity to develop thinking on this.

Systems thinking and interdisciplinary working is needed to integrate knowledge, policy and interventions at different scales and across sectors and departments.

- Should the R20 Task Force organise some internal and external workshops focussed on developing systems and interdisciplinary thinking?
- What is the role of the WMCA in breaking down siloes at the regional level and bridging the gap with national government and policy?

Evidence based strategy development will support development and delivery of a more ambitious narrative on climate change but needs resource and capacity in planning to interpret evidence, regulation, policy, and the life-cycle, energy and carbon (and wider) legacy impacts of technologies and solutions. Extra resource may not be forthcoming in the current situation but both sandpits highlighted a lot of good will towards supporting BCC.

- How can this good will and expertise from across the city be harnessed over the coming months (and years) to support evidence-based planning and delivery of the R20?

Communicating an ambitious and integrated narrative and engagement across the city is essential to bring people along with the transition and the scale of change needed to retrofit the city's housing and built environment.

- How can Birmingham develop a more ambitious or progressive attitude to climate change action?
- How and where do we start engaging communities with planning and the change needed to retrofit the city's building stock and build the demand for low and zero-carbon homes?

Appendix A: Birmingham R20 Sandpit Proformas

Topic:	Housing and Retrofitting	
Date & time:	11 th March 2020	
Location:	University of Birmingham	
Conveners:	Jane Tretheway, Birmingham City Council	
Attendees:	Name	Organisation
	Naomi Todd	Birmingham City Council
	Serena Bacuzzi	Midlands Energy Hub
	Adam Coates	Global Partnerships
	Julian Pritchard	Birmingham City Council
	Carl Taylor	Accord Housing Association
	Cyril Bezant	Housing Association
	Harriet Martin	Footsteps
	Arthur Lee	Kier Living
	Clive Jessop	Jessop
	Graham Lock	Low Carbon Homes
	Melanie Biddle	Engie
	Simon Gates	Lovell
	Cheryl Hiles	Energy Capital
	Robert Stuart	University of Wolverhampton
	Rosemary Coyle	Connexus
	Roger Harmer	Birmingham City Council
	Tony Hopkin	Midlands Heart
	Greg Lakin	Bournville Village Trust
	John Christophers	Associated Architects
	Emily Prestwood	University of Birmingham

System Change

	Investment
What is needed?	- The technical challenge is solvable but the financial barrier is significant. The investment needed to retrofit Birmingham's homes is estimated at around 11 billion over 10 years. The council won't have this budget - it's unlikely it will all come from national government - Need to see commitment to the agenda and a clear strategy from local government, particularly in local planning, so there is certainty for long term investment in projects and infrastructure from the private sector. - Public and private partnership approaches are needed that can commission and work up bigger projects with longer term procurement and greater leverage to get the right solution. - A plan is required that prioritises retrofitting of different house types across the city – government/BEIS want to see business models that show the cost and the technologies needed for different parts of the city so we can access funding locally. - Developers have a lot of problems with utilities and need guarantee of cost of service for bigger projects, including heat networks - We need to start capacity building regionally that shows how we will finance the journey forward.
What will drive system change? - At what sphere of governance - At what spatial scale	- Investment can be driven by creating the appetite and demand for low and zero carbon homes from home buyers. Currently this doesn't exist so prices can't be raised to pay for decarbonisation. Developers need to financially benefit (or avoid penalties) from efficiency improvements. - Changing to a slow-burn economic model that looks at bringing in investment/funding through public/private partnerships that can be paid back over a longer time period.

	- Considering a whole life carbon and cash cost system that includes embedded carbon will favour retrofit over new build/passivhaus etc. - Regional support from the LEP for the low-carbon building sector can help drive the transition. - The WMCA can act as a broker around financing accessing funding opportunities and budgets to retrofit homes and build new affordable homes. - The Smart Cities agenda means that housing energy data has real value and there is a market for information on how energy and carbon is used within a property. Funding can be leveraged for retrofitting from private sector automation of home energy use. - Investment models for retrofitting social housing have catalysed wider regeneration and can be drivers of retrofitting in the private sector.		
Where do we fit in?	Control	Influence	Agitate

	Regulation		
What is needed?	- Revision of Building Regs Part L to outline standards for zero-carbon buildings and a new zero carbon standard/Future Homes Standard. - A fabric first approach continues to be needed that considers interdependencies between insulation and ventilation. - Better monitoring of the performance gap between designed and actual building performance to ensure developers compliance to standards. - Need to look at metering and regulations around district heating to level the playing field - Need to avoid unintended consequences from adhering to parts of building regs e.g. overheating and poor air quality caused by increased insulation. - Need to address retrofitting of private rented sector where there is a high proportion of poor quality homes and antisocial behaviour but currently it's not regulated.		
What will drive system change? - At what sphere of governance - At what spatial scale	- Regulatory changes will drive system change - Quantifiable targets for monitoring performance in new builds can ensure they meet design standard and will drive change whilst saving money in the longer term. - A better understanding of how people use buildings should inform regulations and standards to help drive a right first time approach to retrofitting.		
Where do we fit in?	Control	Influence	Agitate

	Legislation		
What is needed?	- National and local planning policy needs to move away from encouraging lowest cost approach at all time to recognising legacy of continuing to build non-zero carbon homes. - National policy needs consistency of funding and to ensure that whatever is rolled out is consistent. - Nationally and regionally. Housing needs to be seen as essential infrastructure. - Local planning for smart housing where there are a lot of tech and investment opportunities.		
What will drive system change?	Reducing VAT rate on efficiency improvements/retrofit		

• At what sphere of governance • At what spatial scale	• A public sector role in setting and ensuring standards that go beyond Part L in planning policy would drive change if regulatory approaches don't. • Council should be more accepting of planning applications where projects improve overall performance of the building.		
Where do we fit in? Can we....?	Control	Influence	Agitate

	Intervention		
What is needed?	- Need to go beyond Part L and regulations at scale - Supply chain experts are needed as part of housing retrofit action planning. - Need to understand how houses are used on a daily basis and how new technologies such as ASHPs, batteries, PV (required to replace GCH) will be used – if tenants can't work it then it's the wrong technology for the house. - Need processes and check lists to train householders to use and maintain technologies when they are installed and when houses transfer ownership/tenants. - Need to design a retrofit programme that meets the challenges of what's going on locally - Optimising existing legacy systems to prolong their life and reduce carbon footprint. E.g. most boilers massively over specified.		
What will drive system change? - At what sphere of governance - At what spatial scale	- Working in partnership with stakeholders and councils in different neighbourhoods across the city - Connecting up different local government programmes and infrastructure projects – e.g. housing, energy and waste to have an integrated approach. - Continued pressure from groups like Extinction Rebellion to raise profile of zero-carbon agenda and need for interventions. - Aligning our supply chains to create the critical mass to get the quality of retrofit right. - The current system can't deliver the transition, therefore new governance structures at WMCA and LA level will drive system change. - Identifying the synergies between housing, energy and healthy lives, including unlocking data sharing with the NHS to incorporate different costs, impacts (e.g. benefits of natural capital) and funding in to action plans and deliver the changes needed.		
Where do we fit in?	Control	Influence	Agitate

	Action planning
What needs to happen up to 2030 and when? (Agreed milestones)	- Develop strategic plan for retrofitting Birmingham housing stock with prioritisation/phased approach for different neighbourhoods/house types, including - Different retrofit solutions - Different business models - Information for those who want to retrofit and can afford to pay. - Set targets for level of retrofitting required by when for different house types/neighbourhoods e.g. In x years it needs to have double glazing, in x years it needs to have insulation etc. - Set out the role of the Council and partners in facilitating the different stages.

What actions need to be taken and what CO ₂ emission reductions will they deliver?	
How will we monitor and measure progress?	

	Best practice
Links to previous work/publication s/reports	• Energiesprung finance model. • Example scheme for Bristol CC: a district heat pump using biomass - future proofing. Chose to take a lower receipt to put infrastructure in from day 1. • Warwickshire County Council approach – referendum to raise council tax to pay for decarbonisation.

	Communication and Engagement
Who do we need to engage with and when?	• Need to engage with residents and get their feedback. • Need to change hearts and minds and make climate justice issues more important. Low/zero carbon needs to become aspirational and saleable to people (e.g. Zetland Road in Manchester). Looks great. Doing at scale • Need to identify the right locations in the city where the LA could take this approach. • Perceptions around district heating so people feel confident in system. • How to sell it to tenants and homebuyers so that they are getting the message that energy efficiency is important • Need to have a programme of discussions to look at how Birmingham compares nationally and determine the hot issues that might stop Birmingham being as progressive in terms of retrofit. This programme of events would also examine: What policy interventions might be conceivable? What could those bigger asks be from government. It could be an annual event to keep on track with action planning and milestones. A key theme: getting more and more non housing contributors to housing workshops to join the dots between sectors. (GL/Low Carbon Homes have facilitated in Manchester).
How will we engage with different stakeholders?	

Topic:	Planning	
Date & time:	9.30 -12.30, Friday 13 th March 2020	
Location:	UG10, Murray Learning Centre, UoB	
Conveners:	Maria Dunn, Birmingham City Council	
Attendees:	Name: Simon Needle Ellie Crook Uyen Phan-Han Melanie Biddle Sandy Taylor Cllr Julien Pritchard Nina Pindham Austin Barber Chris Martin Craig Jordan Mike Grace Emily Prestwood Claudia Carter Emma Ferranti Apologies: Maggie Fennell	Organisation: Ecology, BCC Planning policy, BCC Planning policy, BCC Engie Urban Energy Chair of WM RTPI, Trustee Black Country Wildlife Trust Green Party Number 5 Chambers Urban/Regional Planning, UOB Footsteps Lichfield District Council/GBSLEP Subgroup Birmingham City University University of Birmingham Birmingham City University University of Birmingham Boningale Greensky

System Change

	Investment
What is needed?	• Developments need to be financially viable. The condition and location of the site effects the cost to develop and the market value. Extra costs to the developer to build sustainable/zero-carbon or affordable homes makes some sites unviable, so there needs to be flexibility and a differential approach to planning in different areas of the city • New funding models are needed for ongoing maintenance cost of green infrastructure such as SUDS • More funding and resource is needed for planning departments at local and regional level so they are able to plan and negotiate what future places should look like. • There is a need to map BCC assets and integrate net-zero in plans for how those assets should be utilised or new assets acquired to assist and help clarify planning decisions.
What will drive system change? • At what sphere of governance • At what spatial scale	• A clear long term vision and strategy in a revised Birmingham Development Plan will demonstrate to developers that infrastructure projects (e.g. heat networks) will be deliverable and commercially viable, driving investment. • Additional resource and investment in training for the council planning team will help drive: ○ Better engagement with developers (who have more resource and capacity) to negotiate on net-zero in new developments and as well as other S106 decisions ○ Better understanding of when and where developments need to be fully policy compliant and where the rules can be relaxed • Lobbying for regional powers to raise taxes locally, utilise funding from OFGEM locally, or to put a reward on carbon benefits would enable the local planning to push back against developers and provide autonomy in how money is spent locally.

	• Linking investment to the City's zero-carbon ambitions and strategy could drive better development (though could also see volume house builders walk away if this makes it less financially viable to build in certain areas). • An increased LA role in land procurement and better understanding of current assets would enable them to mandate standards or write clauses in to the property strategy to use certain technologies • Lobbying national government for a redefinition of viability to include wider health, social, environmental and climate change costs of developments could drive better built environment development		
Where do we fit in?	Control	Influence	Agitate

	Regulation		
What is needed?	• Additional resource, capacity and technical knowledge within the planning department is needed to be able to assess energy applications and understand: ◦ Regs in particular Part L of Building Regs and SAP calculations ◦ Understand the long term carbon impact and legacy of different products and technologies in different decarbonisation scenarios e.g. CHP, electrification of heating • Increased standards in national regulation are needed but aligned to planning framework. • Need to address minimum space standards to enable changing attitudes to density linked to current design of urban housing. • The Future Homes Standard needs to be implemented more quickly and be more ambitious. • Better enforcement and monitoring to ensure developments are built to standard is needed.		
What will drive system change? • At what sphere of governance • At what spatial scale	• A change in attitude and culture in local authorities to be more accepting of climate change and the need for action could drive a change in how planning application which address net zero are progressed and prioritised. • Lobbying for greater resource and local powers in planning could drive the Planning Authority and WMCA to be more ambitious and go beyond national regulations and minimum standards. • Though financial viability will still be important, revising regulations helps provide a level playing field for developers. They will adapt to the new standards driving zero-carbon housing developments. • Increasing technical and carbon/energy impact knowledge and expertise in the LA planning department would enable greater discernment in assessing the benefits of different and new approaches against regulations, particularly for green and blue infrastructure such as green roofs and SUDS.		
Where do we fit in?	Control	Influence	Agitate

	Legislation		
What is needed?	• Birmingham Development Plan (BDP) needs updating and revising to integrate an evidence based net-zero ambition, to be worded in a way that enforces rather than just encourages appropriate actions, and establishes how Birmingham can go above and beyond national policy. The Climate Emergency can be used as justification for revising the plan.		

	• The National Planning Policy Framework (NPPF) is top down and not robust enough and changes frequently. It is easy for a developer to appeal against local decisions. A clearer framework is needed from a Birmingham point of view. • Local and regional plans need to align with energy policy and strategies e.g. District energy scheme there is no been a planning mandate to connect schemes or for future developments to feed into it. • Evidence based national policy and standards on green infrastructure that recognises longer terms environmental, social and economic benefits.		
What will drive system change? • At what sphere of governance • At what spatial scale	• Better evidence-based guidance and policy at national and local level on the health, social, environmental, economic benefits of green/net-zero infrastructure will drive change in attitudes, culture and planning strategy. • A revised, evidence based BDP can lead the way on net zero in the City, and increase the local authorities' abilities to go beyond the National Planning Policy Framework. The plan should include a better framework for climate adaption, green infrastructure and implementation. • National government legislating to make the Future Homes Standard mandatory would support Birmingham being more ambitious with local planning strategy. • NPPF requires a review every 5 years. The council should keep a close eye on the NPPF and submit appropriate responses when requested so it reflects the needs of Birmingham. • Review permitted development rights and require change of use to contribute to zero-carbon e.g. subject to BREEAM. • Lobby national government lobby for clearer strategy on heat decarbonisation and devolution so can set clear strategy local energy systems and integrate in Development Plan. .		
Where do we fit in? Can we....?	Control	Influence	Agitate

	Intervention
What is needed?	• There needs to be better integration with planning across different council departments to bring different departments and strategies together, e.g. retrofitting housing, transport, and waste. • A strategic lead for natural capital is needed as currently this area is multidisciplinary and cross-boundary/cross-teams with different strands of work and more resourcing. • Spatial planning at regional level needs to integrate R20 action planning in Birmingham and have regional alignment with other LA targets. • Conversations about density are needed. Birmingham is in line with other core cities but not European Cities and is still quite low-density. • Need to benchmark ourselves against and connect with other cities to identify best practice, learning and opportunities • Need to create climate resilient spaces to address overheating, urban heat island affects • Need to improve green transport infrastructure to reduce unnecessary car journeys. Birmingham is cycle-able and walkable, but the infrastructure is not well embedded.
What will drive system change?	• Integrating themes in the council, perhaps establishing a R20 department, that planning (and planning policy) can lead on could

• At what sphere of governance • At what spatial scale	drive delivery of the R20 action plan and avoid unintended consequences from siloed activities - e.g. ○ Integrating climate adaptation with mitigation to reduce urban heat island in Birmingham and overheating in future homes. Need for nature based cooling solutions. ○ Considering air pollution levels of areas considered for development i.e. site under Spaghetti Junction. ○ Better and innovative use and development of natural capital. • Changing the attitude in the city to increased urban and strategic density would drive change in terms of the type of development that could be built. • The Council should look to collaborate with other UK, European and International cities who are leading the way in terms of zero carbon and have a more positive, ambitious or radical attitude e.g. Toronto, Canada to drive a local change of attitude. • Regional alignment and collaboration on planning through for a regional economy through the WMCA (e.g. WMCA design principles) will mean best practice is exchanged and synergies, opportunities and conflicts between different LA climate change strategies are identified, driving system change at the local level. • Moving away from the economic/low-carbon growth paradigm and looking at how to harness and empower Birmingham's community orientated society through community led developments, planning and place-making to drive a just, inclusive transition. • Building a body of evidence linked to Anthesis baseline and scenario report to inform a revised Birmingham Development Plan and help a city-wide/cross department implementation of R20 Action Plan to: • Provide evidence that plans are deliverable and justify local planning approaches that should be • Bring developers on board with local plan to ensure they are part of it rather than fighting against it later – work in partnership with the private sector with new or smaller developers. • Birmingham to use its land for exemplar projects, working in partnership with industry/business e.g. Tyseley Energy Park, Smithfield.		
Where do we fit in?	Control	Influence	Agitate

	Action planning
What needs to happen up to 2030 and when? (Agreed milestones)	• Set out timetable for revision/update of Birmingham Development Plan with time and resource requirements • Review capital asset strategy • Map natural capital across Birmingham and identify where to reallocate land. • Birmingham Municipal Housing Trust to review their building spec • Spatial planning clarify our spatial dimensions as a city.
What actions need to be taken and what CO ₂ emission reductions will they deliver?	-

How will we monitor and measure progress?	
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	Best practice
Links to previous work/publication s/reports	• Witton energy hub- https://wittonlodge.org.uk/our-projects/environmental-projects/our-environmental-projects/ • Future Parks Accelerator Project as emerging example - https://www.heritagefund.org.uk/our-work/landscapes-parks-nature/future-parks • Ickneild Port Loop as emerging example – good example of high density housing - https://www.urbansplash.co.uk/regeneration/projects/port-loop • Endless village theory - planning in for less of a need to travel - https://generalpublic.org.uk/project/the-endless-village/the-endless-village-information/ • Green Roof Organisation (GRO) UK guidelines -The next update of UK guidelines for green roofing is due to be published in June this year- https://livingroofs.org/code-practice-green-roof-organisation/ • Temporary Urbanism https://www.citymetric.com/horizons/here-s-how-temporary-urbanism-can-transform-struggling-industrial-towns-3275 • Cohousing, Marmalade lane in Cambridge - enrich the living experience and encourage a more social way of life- https://marmaladelane.co.uk/ • UK Green Building Council - https://www.ukgbc.org/our-work/?work-type=resources&work-area=&work-topic=

	Communication and Engagement
Who do we need to engage with and when?	• Targeting schools: campaigns. School Streets Initiative. • Raise the profile of the work R20 Task Force is doing and place Birmingham as a city and regional driver. • Talk to communities about how our lifestyle and choices may change in the future as we try to be move towards zero carbon. Ask people what sort of place they want to live in? • Win over hearts and minds to help build consumer demand for zero-carbon developments. • Create the space for new things to happen and to bring activities together and communicate across the city. Map the key communities and organisations we should be bringing together and encouraging to engage with planning so that action isn't reliant on 1-2 people in an area. • High level national debate on what it means for the country. Need to be able to say what our route is and what we will need to do. • Currently we're responding to a crisis but planning is about buying into something more - job and wealth creation and the economy. Need to engaging with landlords and financial. Run a jobs/commercial R20 sandpit.
How will we engage with different stakeholders?	

Appendix B: Sandpit/workshop briefing notes

R20 Housing Workshop

Thursday 11 March, 2.30-5.00pm, arrival and refreshments, 2.00pm

Room 111, Chemical Engineering Building Y11, South West Campus, University of Birmingham

Background

Birmingham City Council (BCC) declared a climate emergency on 11 June 2019 with an aspiration that the city and Council would be net zero carbon by 2030 or as soon as possible thereafter as a 'just transition' permits, ensuring we mitigate negative socio-economic impacts for our communities.

On 25 June 2019, Cabinet added a sixth priority outcome to the Council Plan for Birmingham to be a city that takes a leading role in tackling climate change.

The Route to Zero (R20) Taskforce was created in autumn 2019 and brings together BCC Members and officers and representatives from the West Midlands Combined Authority, NHS, higher education, business, faith communities, the third sector, youth climate strikers, climate campaigners, and other stakeholders and partners. The Taskforce will work to provide a voice for the city and inform the development of an action plan for how Birmingham can tackle climate change and become net zero carbon by 2030. This will empower individuals, communities, businesses, partners, and others to tackle the climate emergency together and ensure Birmingham is a city in which all residents can lead sustainable, healthy, safe, and fulfilling lives.

BCC has commissioned Anthesis to prepare a baseline report of the Council's and City's current CO₂ emissions and to undertake scenario modelling and impact and viability assessments to identify potential carbon reduction interventions and understand the relative social and economic impacts and viability of these potential interventions. The outputs of the study will support the development of a carbon reduction plan. Recommendations for how the city can take action will be presented to Full Council in June 2020.

This workshop will bring together housing and community experts to provide ideas and evidence to feed into the Anthesis study. This will help to identify potential carbon reduction interventions in relation to housing.

Purpose:

To identify what can be done in both new and existing homes to help us achieve net zero carbon by 2030.

The aims of the workshop are:

- To map out the milestones we need to reach in order to progress towards zero carbon
- To consider actions to be taken locally, regionally and nationally to deliver zero carbon
- To identify plausible regulatory changes that could deliver net zero carbon
- To identify what we need to lobby Government for to deliver net zero carbon
- To identify best practice that demonstrates what is achievable; and identify how to break down the barriers to rolling these out.
- To identify the measures that we need to put in place to deliver net zero carbon, the potential carbon savings of these measures and the lead-in times to deliver them.

Background Reading

Retrofitting at scale - <https://www.rics.org/uk/news-insight/future-of-surveying/sustainability/zero-carbon/>

Energiesprong - <https://energiesprong.org/about/>

The Future Homes Standard -

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/852605/Future_Homes_Standard_2019_Consultation.pdf

Best Practice Examples:

Examples of zero carbon development from within the UK. Important to understand how the barriers were overcome and think about how these examples could be rolled out more widely or applied to Birmingham.

- Goldsmith Street - <https://passivhaustrust.org.uk/news/detail/?nId=840>
- Bicester Eco Town - <http://www.zerocarbonhub.org/sites/default/files/resources/examples/profiles/ZCH-Profile-NORTH%20WEST%20BICESTER%20ECO-TOWN.pdf>
- Passivhaus for Bournville Gardens - <http://www.greenboxassociates.co.uk/news/item/passivhaus-for-bournville-gardens>

Examples of Zero Carbon retrofit

- Zetland Road Passivehouses - <https://www.ecospheric.co.uk/zetland>
- Beattie Passive Retrofit Plus Project Birmingham - <http://beattiepassiveprojects.com/RetrofitPlusBirmingham/>

Planning Workshop

Friday 13th March – 10am -12:30pm, arrival and refreshments from 9:30am

Room LC-UG10 the Murray Centre, University of Birmingham

Background:

Birmingham City Council declared a climate emergency on 11 June 2019 with an aspiration that the city and Council would be net zero carbon by 2030 or as soon as possible thereafter as a 'just transition' permits, ensuring we mitigate negative socio-economic impacts for our communities.

On 25 June 2019, Cabinet agreed to add a sixth priority outcome to the Council Plan for Birmingham to be a city that takes a leading role in tackling climate change.

The Route to Zero (R20) Taskforce was created in autumn 2019 and brings together Members and officers from the Council and representatives from the West Midlands Combined Authority, the NHS, higher education, business, faith communities, the third sector, youth climate strikers, climate campaigners, and other key stakeholders and partners. Members of the Taskforce will work together to provide a voice for the city and inform the development of an action plan for how Birmingham can tackle climate change and become net zero carbon by 2030. This will ensure individuals, communities, businesses, partners, and others are empowered to tackle the climate emergency together and ensure Birmingham a city in which all of our residents can lead sustainable, healthy, safe, and fulfilling lives.

The City Council has commissioned Anthesis to prepare a baseline report of the Council's and City's current CO2 emissions and to undertake scenario modelling and impact and viability assessments to identify potential carbon reduction interventions and understand the relative social and economic impacts and viability of these potential interventions. The outputs of the study will help prepare for the development of a carbon reduction plan. Recommendations for how the city can take action are due to be presented to Full Council in June 2020.

This workshop will bring together planning and built environment experts to provide ideas and evidence to feed into the Anthesis study. This will help to identify potential carbon reduction interventions in relation to planning.

Purpose:

To identify what planning can do to help us achieve net zero carbon by 2030.

The aims of the workshop are:

- To identify the planning barriers facing us in achieving net zero carbon
- To identify plausible regulatory changes that could deliver net zero carbon
- To identify what we need to lobby Government for to deliver net zero carbon.
- To identify what best practice examples that demonstrate what can be achieved; and to identify the barriers preventing these examples being rolled out more widely and how we might break down those barriers.
- To identify the measures that we need to put in place to deliver net zero carbon, the potential carbon savings of these measures and the lead-in times to deliver them.