

Foreword



One of the defining challenges of our time is, simultaneously, to tackle the shortage of high-quality homes; avoid adding to climate change; improve biodiversity and our wider natural environment; create homes that are high quality, comfortable, safe and ready for inevitable changes in our climate; and create beautiful neighbourhoods where people want to live and work.

The fundamental importance of our homes and immediate environments to our collective wellbeing has never been clearer than over the last year, during the national lockdowns.

Earlier this year, the Government took a substantial step in this journey – setting the Future Homes Standard at a level which means that new homes will move away from fossil fuel heating and be future proofed with high levels of energy efficiency. But this is a multi-faceted set of challenges. Decarbonising new homes also means decarbonising the process of production and construction, designing developments to support low carbon lifestyles and driving carbon from business operations.

At the same time Net Biodiversity Gain means weaving nature more effectively in and around developments not only to improve quality of life but also to reverse wider biodiversity loss. We need to build homes that are well ventilated with fresh air, avoid overheating, are protected from flood risk and are more efficient in their use of water and resources.

Throughout we need to make sure we are building better

homes and are more attractive and nature-rich places to live, inspiring customers to demand homes that meet the new standards. In combination this means a wholesale change in how we design and build homes for future generations. This is no small task.

It is at once exciting and an opportunity to unleash the spirit embodied in the Prime Minister's Ten Point Plan for a Green Industrial Revolution, spurring on new innovations and domestic supply chains. But we must also concentrate minds on the seriousness of the task. We must ensure our solutions are up to the size of the challenge and we must manage the risks associated with innovating quickly at scale across the country. We must also ensure the solutions work for all sizes and types of company, house type and all parts of the country in line with the Just Transition.

We will require new skills across the trades. We will need to bring together many of our greatest innovations and a new level of collaboration across the industry, to ensure supply chains respond at the right scale and we innovate together on the infrastructure needed. We will need to draw on everyone's expertise.

We have therefore been delighted to work together as leaders across the fields that contribute to and influence home building through the Future Homes Task Force to develop this plan which we believe responds to the scale of the challenge. This is in many ways the first sector-wide plan that not only covers sustainability as a whole, but also comes with a clear set of delivery proposals.

The Future Homes Delivery Hub will be the focal point for supporting the industry's implementation of the Future Homes plan and roadmap, including but going beyond the Future Homes Standard. It will be a safe space for the sector to come together, pool technical capacity and innovations, and find solutions with co-dependent sectors. The Hub will be industry led and supported by government to ensure successful sector-wide implementation.

The Hub will work with and connect the many great existing initiatives rather than replace or duplicate them. It must, as a priority, support smaller businesses including those in the self and custom build sector. The Hub must also work seamlessly with the Office for Place to make sure that sustainability and beauty go hand in hand. The Hub will have robust governance and accountability arrangements.

We would like to thank the very wide circle of stakeholders who have generously given their time to help get us to the starting line.

Now collectively we must ensure that we deliver, holding each others' feet to the fire, to make this positive vision for our country a reality. We judge previous generations by how well they build and so we will be judged by how we build.

This is our opportunity to get it right.

The Future Homes Task Force

27 July 2021



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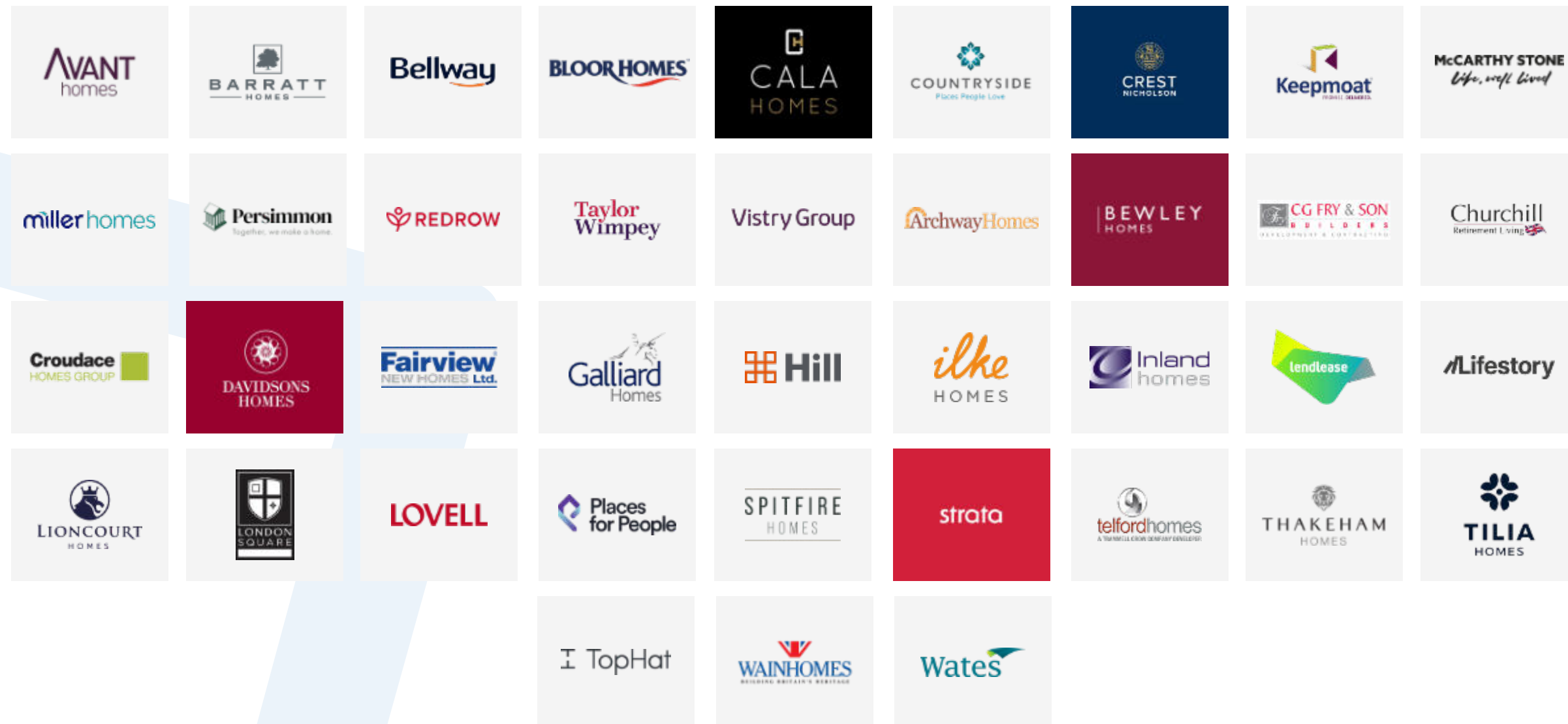
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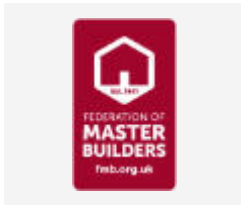


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This document sets out the commitment to collaborate on the goals and a shared roadmap through the Future Homes Delivery Hub.





In collaboration with HM Government:



Department for Environment
Food & Rural Affairs



Department for Business, Energy
& Industrial Strategy



Ministry of Housing,
Communities &
Local Government



HM Treasury

Summary of the delivery plan

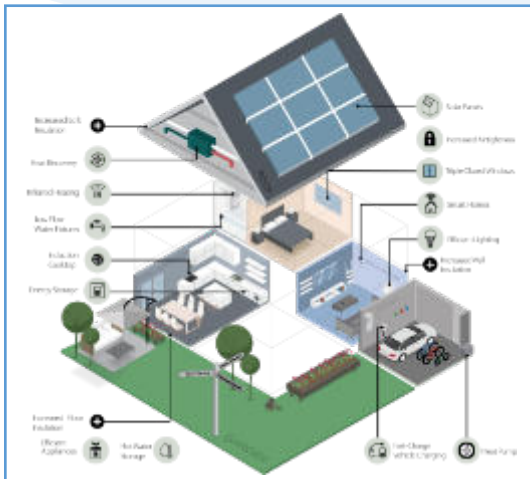
The Future Homes Delivery Hub will oversee delivery of the goals and roadmap

Summary of the goals



1

High-quality homes that are zero carbon ready and sustainable. Target levels to be set for 2025 (See page 8).



2

Places and developments that are consistently low carbon, nature-rich, resilient, healthy, well designed and beautiful by 2025.



3

Production and construction methods that are net zero and sustainable by 2050 with substantial progress by 2025 and 2030.



4

Businesses operations in line with the Race to Zero: net zero by 2050 with a 50% reduction by 2030.



Summary timelines of sector-wide goals and commitments

	HEADLINE GOAL	FROM 2025	FROM 2030	FROM 2040
Homes that are:	Zero carbon ready	Zero carbon ready (for regulated energy) across all homes, with very high fabric efficiency standards. (kWh/m ² /yr; precise levels to be determined). Investigation of how further to reduce energy demand and emissions sector-wide.		
	Healthy, safe and comfortable	Target levels to be set for 2025 for interlinked elements such as: overheating, air quality, sound, space and accessibility, safety and daylighting.		
	Water efficient	Work with government to develop a roadmap in 2022 to achieve greater water efficiency in new development, including exploring the role for a fittings approach, for new technologies and innovative water systems and the potential for future targets for reducing water use in 2025 and 2030.		
	Designed for sustainable living	Incorporate technologies that enable sustainable lifestyles, including zero emission vehicle readiness.		
Places that:	Are well designed	All relevant applications will consistently design low carbon, nature, sustainable lifestyles, resilience, health and beauty into developments, in line with the National Model Design Code as early as possible. This will include greater connectivity with low carbon modes of transport.		
	Maximise Biodiversity Net Gain	Optimise benefits for nature and people from Biodiversity Net Gain once introduced. If appropriate, once properly analysed and understood, pilot the move to Environmental Net Gain and, work with the Government to develop the methodologies.		
	Achieve water resilience	All relevant applications give early and strategic consideration of how to proactively manage long term flood risk and water resilience, availability and quality at site and property level including the use of multi-benefit SuDS.		
	Respect environmental thresholds	Collaborative action to reduce pressure across the system, notably in areas vulnerable to nutrient overloads, water stress and floods.		
Production and construction that achieves:	Zero embodied carbon	Ambition to meet or exceed the World GBC Net Zero pathway, with rapid analysis to set robust and stretching targets for 2025, 2030 and 2040 and/or other dates as appropriate.		
	Resource efficiency	Incremental improvements and target to be set for 2025, 2030 and 2040.	Zero avoidable waste at all stages of the construction lifecycle by 2050.	
	Water efficiency	Early work to set reduction targets for, 2025, 2030 and 2040.		
		Up to 30% reduction.	Up to 40% reduction.	Up to 50% reduction.
Low emissions to air	Air quality target to be set for 2025, 2030 and 2040.			
Businesses operations that are:	Net zero and sustainable	Establish and implement wider sustainability goals.	50% reduction in business emissions by 2030.	Net zero business emissions by 2050.

ROADMAP: performance of homes in operation



	2021	2022	2023	2024	2025	2030	2040	2050
Government asks and actions	FHS: 1				Full Future Homes Standard.			
	Environment Bill Targets.				No petrol/diesel cars.			
	Work together on the full set of standards alongside the Future Homes Standard to ensure coherence across the issues including: to incorporate water efficiency, air quality, overheating, design for sustainable living.							
	SAP update so industry knows parameters.		Review and update SAP.					
Systematic approach	Develop sector-wide performance metrics and monitoring and communications approach, including as feedback loop to better reflect actual performance. (Horizontal across the four domains).							
	Combined approach to achieve 2021 and 2025 in all areas, by strategically reviewing process changes and design types: Innovation and design > technical specification > testing new designs > scale exemplars country-wide > post-occupancy evaluation > re-designing standards home types.							
	Work at scale with supply chain, skills and training providers, infrastructure providers, finance, certifying bodies.							
	Develop online and offline support, outreach and training, tailored to support smaller developers.							
	Take a customer lens throughout. Actively engage the customer to increase appetite for homes built to new standards. Develop home user guide templates and content.							
Zero carbon ready	<ul style="list-style-type: none"> Fabric Advanced technologies (e.g. MVHR, water heat recovery, ASHPs, GSHIPs, Pvs) Infrastructure and switch off fossil fuels Demand-side management (e.g. smart controls, batteries and energy aggregation) 				Zero carbon ready homes.			
					High fabric efficiency – kWh/m2/yr metric.			
Healthy and comfortable	Ensure overheating is mitigated whilst increasing airtightness.				Target levels to be set for overheating, air quality, sound, space and accessibility, safety and daylighting.			
Water efficiency	Work with government to develop a roadmap in 2022 to achieve greater water efficiency in new development, including exploring the role for a fittings approach, for new technologies and innovative water systems and the potential for future targets for reducing water use in 2025 and 2030.				Potential water reduction targets for 2025 and 2030.			
Designed for sustainable living	Longer-term design measures to allow home users to live sustainably reflecting changing needs of occupants and the community.				Incorporate zero emission vehicle readiness and other sustainable lifestyle enabling technologies as appropriate.			

ROADMAP: planning and site design



	2021	2022	2023	2024	2025	2030	2040	2050	
PLANNING AND SITE DESIGN	Government asks and actions		Environment Bill Targets, including 10% BNG				Expand to Environmental Net Gain		
		Collaborate as part of planning reform on: how to join up environmental and development planning; how to engage local communities consistently and efficiently; and on the processes to demonstrate that the totality of sustainability requirements have been met in a user friendly way.				Implement the new planning measures. Site-level sustainability plans should apply for permissions from 2025, informed by the methods and guidance developed through the Hub.			
	Systematic approach		Collaborative work with the development sector to identify: <ul style="list-style-type: none"> The templates for implementing the National Model Design Code in a coherent way with Biodiversity Net Gain, the future homes standard and all the other requirements and elements in this plan Barriers and needs for additional support Arrangements for successful implementation including for stewardship Demonstrator projects to facilitate shared innovation, learning and customer engagement 						
			Programme to build capacity and understanding to embed integrated approaches to sustainability across industry and local government, with a focus on smaller developers.						
	Well designed		Collaborative work with MHCLG's chief planning and the Office for Place on the programme above. During 2023 establish the activities that can be done sector-wide to integrate nature into development and help achieve the nature targets in the Environment Bill.				All relevant applications will consistently design low carbon, nature, sustainable lifestyles, resilience, health and beauty into developments, in line with the National Model Design Code as early as possible. This will include greater connectivity with low carbon modes of transport.		
	Achieve water resilience		Water resilience will be incorporated into the industry-led programme above to achieve resilience to future climate projections (UKCP) including flooding and water scarcity, considering location and site design, using multi-benefit SuDs where possible and incorporating property flood resilience. This would reflect the water sector's Design & Construction Guidance. Determine how these solutions can improve water quality.				All relevant applications give early and strategic consideration of how to proactively manage long term flood risk and water resilience, availability and quality at site and property level including through the use of multi-benefit SuDs.		
Maximise Biodiversity Net Gain		Investigating the potential for strategic national approaches and partnership arrangements with the conservation community to maximise value to nature from BNG and address long-term maintenance of sites. Second in conservation body expertise to advise on incorporating best practice measures.				Optimise benefits for nature and people from Biodiversity Net Gain once introduced. If appropriate, once properly analysed and understood, pilot the move to environmental net gain and, work with government to develop the methodologies.			
			Investigate how offsite offsetting could aid increasing BNG beyond 10%. Dialogue with government to establish longer term approach to Environmental Net Gain, if supported by evidence.						
Respect environmental thresholds		Investigate the solutions that can be used where threshold issues arise such as nutrient neutrality and water neutrality pilots, and floods. Catalyse and bring together the findings from pilots.				Collaborative action to reduce pressures across the system, notably in areas vulnerable to nutrient overloads, water stress and floods.			

ROADMAP: production and construction



	2021	2022	2023	2024	2025	2030	2040	2050	
PRODUCTION AND CONSTRUCTION			FHS: 1			Full Future Homes Standard.			
	Systematic approach			Agree measurement methods, reviewing existing measurement standards, including with supply chain.					
				Measure and publish current performance across the industry.					
				Assess what reductions can be made when, reflecting the whole life environmental impacts.					
				Set targets and a detailed roadmap for how carbon, resources, water and air pollution can be reduced during the construction lifecycle, including the specific mechanisms and actions needed.					
				Understand clashes and synergies with the Future Homes Standard and other changes.					
		Meanwhile, identify quick wins that can be implemented across the sector.	Publish and support materials for the sector.						
Zero embodied carbon		Work with supply to achieve: <ul style="list-style-type: none"> • EPDs for each product • Expanded supply of low/zero carbon materials • Support SMEs in selecting materials and product types 				Ambition to meet or exceed the World GBC Net Zero pathway, with rapid analysis to set robust and stretching targets for 2025, 2030 and 2040 and/or other dates as appropriate.			
Resource efficient		Work with supply chain to drive action on plastics and other waste.				Incremental improvement and target to be set for 2025, 2030 and 2040.	Zero avoidable waste at all stages of the construction lifecycle by 2050.		
Water efficient		Connect to meter at site start to measure water use for baseline. Working with suppliers and water companies to trial and develop lower water usage options to allow scale up prior to meet the 2025 – 2040 pathway.				Up to 30% reduction.	Up to 40% reduction.	Up to 50% reduction.	
Low air pollution		Collaboration with manufacturers on future machinery and site facilities.				Air quality targets to be set for 2025, 2030 and 2040.			

ROADMAP: sustainable business



New government policy or target	Potential target	Enabling activity done or catalysed through hub	Precondition
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	2021	2022	2023	2024	2025	2030	2040	2050
SUSTAINABLE BUSINESS	Zero embodied carbon	Secure accreditation for the Future Homes plan to be part of Race to Zero.				50% reduction by 2030, moving to net zero by 2050.		
	Other environmental targets		Establish the options and actions for home building operations to meet the Race to Zero trajectory including through decarbonising business transport and working space.			Potential sustainable business targets to be set.		
	Across all targets		Establish how corporate reporting can be done most effectively and efficiently in line with this plan and wider requirements such as TCFD.	Track progress across all elements of the plan.				
		Identify and assess "quick wins" to achieve early progress across any of the four domains, for example to eliminate single use plastics. Additionally, the mechanism to implement at scale across the sector.						
		Publish guidance.						

Background to the delivery plan

Context to homes and the environment

The climate and environmental policy framework.

The science tells us we need to act urgently to confront climate change and wider environmental pressures. UK governments have responded by putting in place a new policy framework to ensure these challenges are addressed.

In England this includes the legally binding targets of net zero greenhouse gas emissions through the **Climate Change Act** and wider targets covering nature, resources, water and air quality, through the new **Environment Bill**.

The new **National Design Guide** and **National Model Design Code** provide a framework for local authorities to design climate and environmental issues into development more consistently at planning stage.

The cycle of **Climate Change Risk Assessments** and **National Adaptation Programmes** under the Climate Change Act means policy will increasingly require policy to anticipate climate change impacts such as overheating, flooding and water stress.

The challenge for home building.

Taken together, this national framework of targets and goals constitute possibly the biggest set of challenges the homebuilding sector has ever faced. We know that these targets are with us for the long term, reinforced through growing public demand and for example, the environmental social and corporate governance (ESG) criteria set through the investment community.

Already we are beginning to see the process of translating national targets into policies specific to homebuilding with the Future Homes Standard and Biodiversity Net Gain. Inevitably this process of policy translation will continue for example, to address carbon emissions over a building's entire lifecycle (including the embodied carbon associated with construction and materials) and to meet water and resource efficiency targets.

Collectively, they require fundamentally, rethinking the way we design and build homes.

Understanding the home building context.

Managing this process of sector-wide transformation to meet the environmental challenges, while building enough and better homes, requires understanding the operational, commercial, market and environmental context for home building. In particular the:

- social and government objective to build more homes
- the need to bring the customer with us
- industry structure and context for smaller developers
- nature of the market
- land market and project cycles
- ecosystem of sectors and professions that influence new homes – and therefore need to be brought into the process of change
- interlinkages, co-dependencies and co-benefits between environmental issues and other operational issues
- need to manage innovation and delivery at scale safely and smoothly.

The need for a pro-active and structured framework for collaboration.

The Task Force therefore advocates a strategic delivery plan that is:

- well-structured and sequenced
- sector-wide
- facilitating collaboration between the co-dependent sectors involved in building homes
- durable
- putting experience and value for the customer at the heart of change.



Goals, commitments and roadmap

Organising the challenge into business domains where change is needed.

The sector-wide plan has therefore been developed to translate the national policy framework into a structured and sequenced delivery plan.

The plan is organised into four domains, reflecting the business activities that shape the environment's:

- performance of homes in operation
- planning and site design
- production and construction process
- wider business

Sequencing goals and commitments to plan for transformational change.

The Task Force recognises that it is not possible to do everything at once and that the roadmap therefore needs to be carefully sequenced. The table on page 8 shows the goals structured into time periods from 2025, 2030 and 2040 to facilitate collaborative planning for sector-wide transformation. The set of

relevant environmental issues is considered together within each domain to enable joined-up thinking, for example about how homes can be designed to be zero carbon, water efficient, comfortable and safe at the same time.

While some of the goals have firm metrics and targets, others do not yet without further analysis. **A year one activity for the delivery hub is therefore to complete the set of industry-wide metrics.**

Roadmaps as 'staircase' to support sector-wide change.

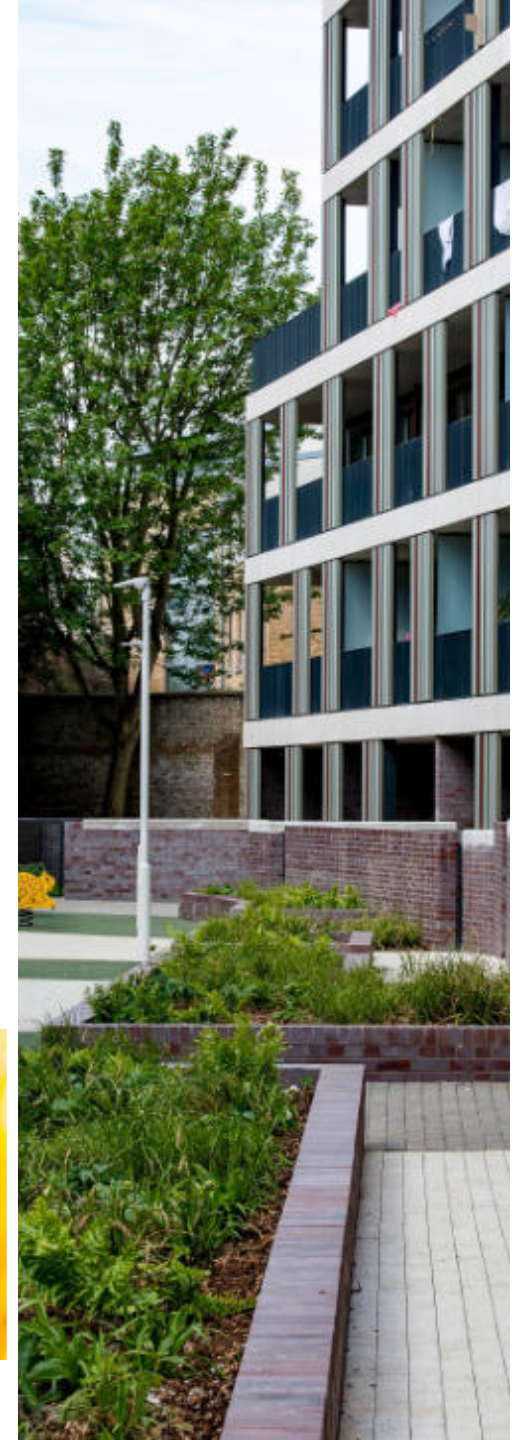
For each domain the Task Force believes it is necessary there is a roadmap which sets out the current view of the 'staircase' of enabling steps that need to be taken across the sector to support the change. This includes the collaborative activities that will be undertaken through the delivery hub and the Government actions that will facilitate change.

This approach is particularly important for smaller developers to ensure sufficient timescales and the ability to develop the necessary skills and share learnings across the industry.

Support from government and a social compact.

The Task Force and stakeholder discussions consistently echoed the view that we can only create sufficient confidence to plan and collaborate over the timescales needed with the right degree of collaboration with government and more widely a form of 'social compact' between stakeholders involved in the process of delivery. Key players, including through representative bodies, need to commit to working together to achieve the goals.

The Task Force also believes support from government is vital to give widespread confidence that the plan is in line with government's objectives and to unblock progress where necessary.



Implementation and delivery hub

The delivery hub will ensure the plan is genuinely sector-wide, brings together the 'delivery chain' of partners required to enable delivery, gives everyone confidence in delivery and is managed under a robust governance framework.

Emerging role and structure of the delivery hub.

Every developer will need to go through a similar change programme to meet not just the Future Homes Standard and wider aspects of net zero, but the wider set of goals in this plan. Rather than this change being managed separately by each 2,500 home builders, the purpose of the delivery hub is to facilitate collaboration and innovation across the sector, with the supply chain and with the range of expert bodies required to achieve the goals.

The Hub will own the enabling steps in the roadmap and to oversee and unblock progress. The Hub will be a small central team that brings together the right people, defines the right questions, delivers the right answers and does this at the right time. Strong buy in of both the development industry and wider delivery chain is essential.

Independence governance of the implementation at the delivery hub.

At the same time, to retain trust and credibility, especially as circumstances evolve and change over the next years, the Task Force is of the view that the roadmap and delivery hub must be subject to robust and independent governance. Early thinking is that this should consist of: an executive board to oversee delivery of the roadmap and the Hub's work programme; a small business steering group; an ongoing role for the Task Force; and a transparent and sustainable funding model.

Metrics and monitoring.

Early priorities for the Hub will be to translate the goals into a sector-wide set of performance metrics and to develop monitoring methods for the metrics. These metrics will form the basis for raising standards across the whole industry while providing a clear and objective basis for those who want to go further to differentiate.

The Hub should also oversee progress towards implementing the standards and commitments and the barriers to progress.

Small business and inclusivity.

The Hub should be designed to meet the needs of small businesses, providing the

outputs they need in accessible formats at the right time. A small developer group or groups should therefore help inform both the design of the Hub and its operation.

Similarly, the Hub should cater for all types of new home developer (for example, private, public and social housing) and look at solutions for all housing typologies (for example, detached, terraced or apartments).

Putting customers at the heart of delivery.

Throughout the Task Force process, a continued priority has been to recognise that home building is a customer-facing activity and that successful change must put the customer at the centre and actively engage the consumer to increase appetite for new homes build to new standards.

The Hub will therefore consistently need to look through the customer lens as it works with industry to design solutions, communicating the customer benefits of sustainable homes and providing support for using new technologies.

Success will be dependent upon future owner, occupiers, employers and communities understanding the impact and benefits.

Connecting support initiatives and organisations.

The Task Force recognises that meeting the set of sector-wide challenges will require everyone to work in concert. The Future Homes roadmap for the first time provides a single, sector-wide plan for the whole industry. To be effective, we must also collectively ensure that we align, connect and achieve consistency between this plan and any wider plans rather than to duplicate. Work is therefore underway to connect into other relevant plans such as the Construction Leadership Council's **CO2nstructzero plan** and the **UK Green Building Council's** roadmap.

Strategic alignment of the delivery chain.

The Task Force also recognises that meeting the challenges effectively, coherently, efficiently, with the timeframes set and while managing parallel risks for example to safety, depends on all those who play a part in the delivery chain facing in the same direction and working in a mutually supportive way. This includes, for example, the finance sector, local governance and planners, infrastructure and utilities, supply chains, skills and certification and warranty providers.

Future Homes Task Force background and process



A Housing and Environment Summit in January 2020, called for an industry-led strategic plan for climate and environment.

60 senior stakeholders met on 6 January 2020, from across developer and related industries, government, regulators, environmental and expert communities to discuss how best to tackle the environmental challenges facing the development of new homes.

There was widespread consensus on the need to act, that success was only possible if all those involved in the process of home building worked together towards common goals and of the need for a carefully sequenced and structured plan. There was also a clear view that the development sector was best placed to understand

the process of innovation and change and should adopt a leadership position in taking the plan forward.

The conclusion of the summit was that stakeholders should therefore work collaboratively under the guidance of a high-level task force to develop a strategic industry-led climate and environment plan.

The Future Homes Task Force oversaw development of the strategic plan.

Following the initial phase of the pandemic, representatives from different parts of the home builder and supply chain industries, government, regulators and related stakeholder groups were asked to join the Future Homes Task Force to oversee the development of the plan between September 2020 and March 2021.

The objective was to develop a strategic delivery framework commensurate with the challenge of building new homes at the scale needed in line with our climate, environment and wider sustainability goals. The Future Homes Task Force's vision is to deliver sustainable homes and places at a sector-wide scale that are great to live in and that we as a generation can be proud of.

The outputs were to identify the:

- commitments the new homes sector should make to achieving environmental goals
- strategic roadmap for meeting the commitments including the enabling actions
- implementation arrangements including the delivery hub to facilitate implementation of the roadmap

The process involved intensive engagement with all relevant stakeholders.

The Task Force process, managed by a small joint secretariat under the **Home Builders Federation** and the **Broadway Initiative**, involved intensive engagement to understand the operational issues for all those involved in the development of new homes and the views of different stakeholders. This engagement included the following:

- surveys of the home building sector and wider stakeholders
- post-first lockdown summit
- core group of home builders
- proposal development workshops
- home builders technical directors' group
- briefings on emerging proposals with home builder and other communities.

