

# Reconciling Land Uses on a Crowded Island to Achieve Net Zero and More

Thomas Oliver



# Disclaimer

*Views expressed here are solely my own, based upon my experiences and research, and not of the Department.*



# Consenting Energy Infrastructure (England)



## Town and Country Planning Act 1990 **<50MW**

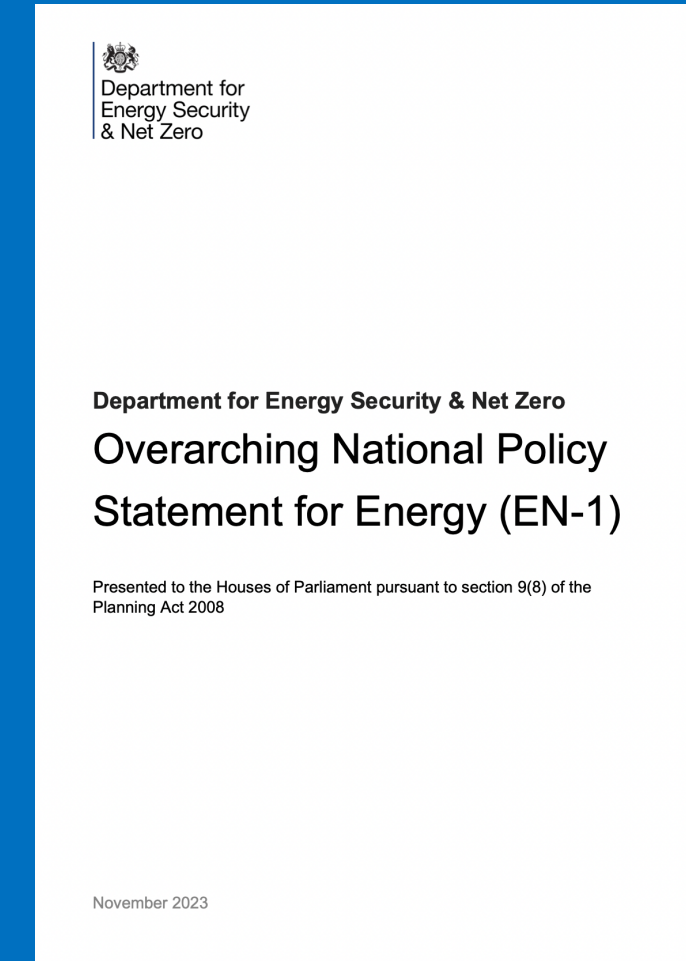
Examined under the relevant Local Plan(s) and the National Planning Policy Framework (NPPF)

Assessed and determined by Local Planning Authorities (e.g. Oxford City Council)



## Planning Balance

Significance of benefits  
vs  
Significance of harms



## Planning Act 2008 **>50MW (NSIPs)**

Examined under National Policy Statements (NPSs)

Assessed by the Planning Inspectorate and DESNZ

Determined by the DESNZ Secretary of State

# Present and Future of Renewable Energy Infrastructure

**2024**

**52% renewable energy generation**

**30 GW**

**16 GW**



**2030 (CCC)**

**Zero-carbon energy generation**

**3x offshore wind  
2x onshore wind**

**5x solar**







# A Range of Land Uses



**Development of HS2, Lower Thames Crossing, and London Airport Expansions**



**Build 1.5 million new homes by 2029**



**Maintain domestic food production at 60-70% of consumption**



**Double onshore wind, triple solar, and quadruple offshore wind by 2030**



**Increase woodland cover to 16.5% of England by 2050**



**Protect 30% of land and sea by 2030, create 140,000ha of wildlife-rich habitat by 2028, and create 25 NNRs by 2027**



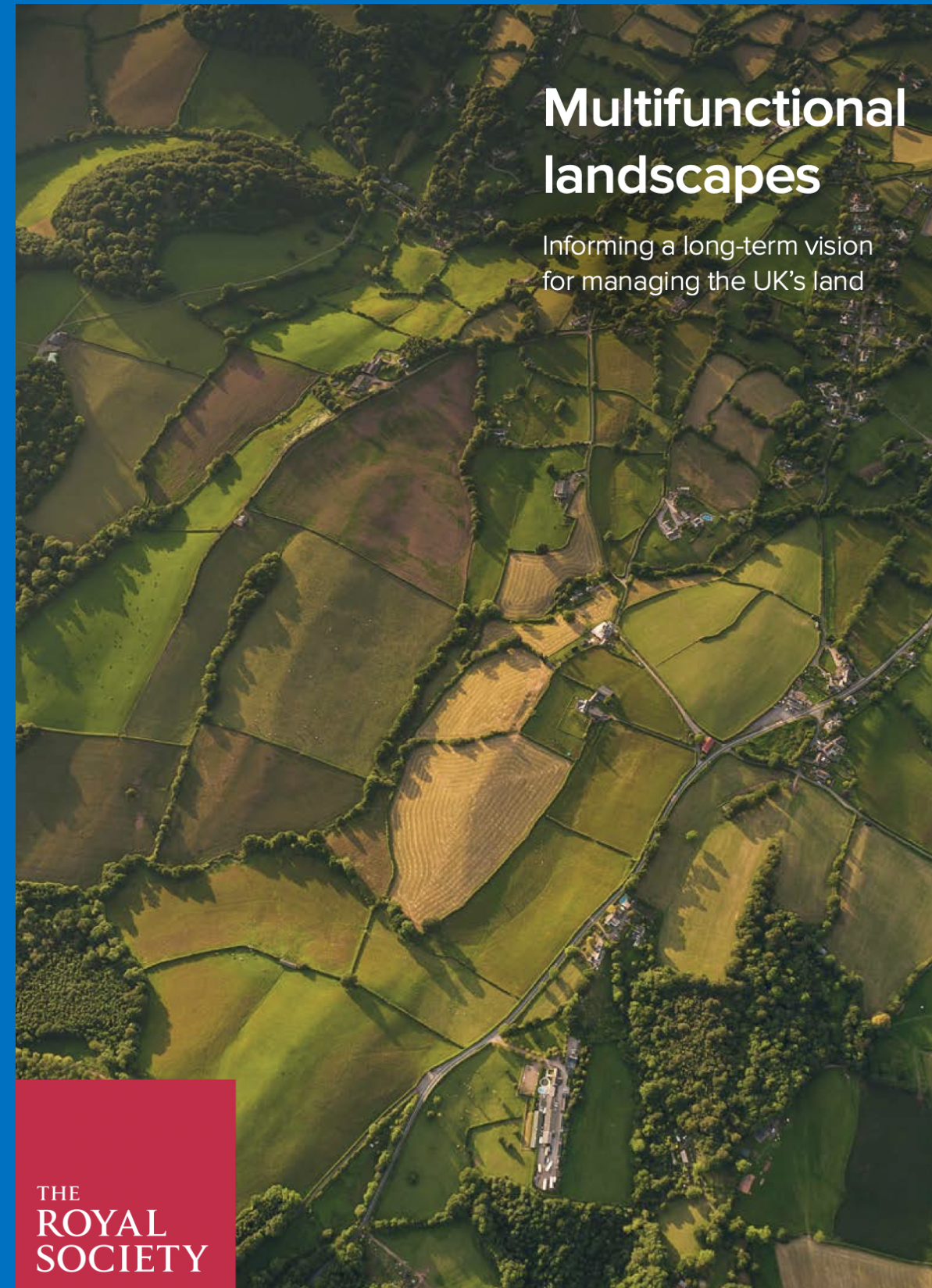
# An Even Greater Range of Plans and Strategies

 <p>Oxford Local Recovery Plan</p> <p>ADOPTED 8th...</p> <p>Draft</p> <p>Building a world-c...</p>	 <p>Oxford Local Infrastructure Strategy</p> <p>ADOPTED 8th...</p> <p>Building a world-c...</p>	 <p>Oxford Local Transport Plan</p> <p>ADOPTED 8th...</p> <p>Building a world-c...</p>	 <p>Oxford Local Energy Strategy</p> <p>ADOPTED 8th...</p> <p>Building a world-c...</p>	 <p>Oxford Local Environment Strategy</p> <p>ADOPTED 8th...</p> <p>Building a world-c...</p>	 <p>Oxford Local Food &amp; Rural Affairs Strategy</p> <p>ADOPTED 8th...</p> <p>Building a world-c...</p>	 <p>Oxford Local Housing, Communities &amp; Local Government Strategy</p> <p>ADOPTED 8th...</p> <p>Building a world-c...</p>	 <p>Oxford Local Energy Security &amp; Net Zero Strategy</p> <p>ADOPTED 8th...</p> <p>Building a world-c...</p>
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# An Even Greater Range of Plans and Strategies

THE  
ROYAL  
SOCIETY



## Multifunctional Landscapes: Informing a Long-Term Vision for Managing the UK's Land (2023)

*“If existing land-based policy commitments are added together, one finds that the UK's land already risks being ‘overpromised’ ...*

*By 2030, up to 1.4 million ha of additional land (equivalent to the area of Northern Ireland) could be needed to meet current policy targets for net zero and biodiversity, if current agricultural production, diets and food waste remain static. This rises to 4.4 million ha by 2050 – over twice the land area of Wales”*



# Land-Use Tensions & Energy Development

Fragmented and siloed land-use planning and the inevitable tensions that emerge significantly delay the design, consenting, and operation of renewable energy systems and the achievement of Net Zero

Loss of agricultural land and food production

**Food or solar? Farmers divided over**

**Solar farm plans spark food versus energy security debate**

**Labour's solar farm push will rob UK of fertile farmland**

**Bui  
We**

**'There'll be no countryside left':  
Opposition to pylons puts UK carbon targets at risk**

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Infrastructure essential to decarbonise electricity generation by 2030 met with resistance by those affected

**racter' of**

**Damage to landscape  
and visual amenity**

**Big UK offshore windfarms push risks  
harming habitats, say campaigners**

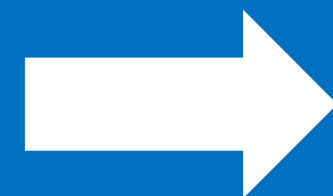
**Europe's biggest solar farm 'could  
desecrate fens'**

**Loss of species and  
habitats**

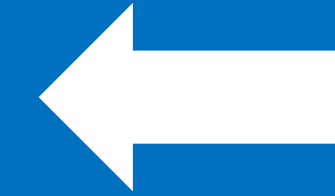


# A Land Use Framework (LUF) as a Possible Solution

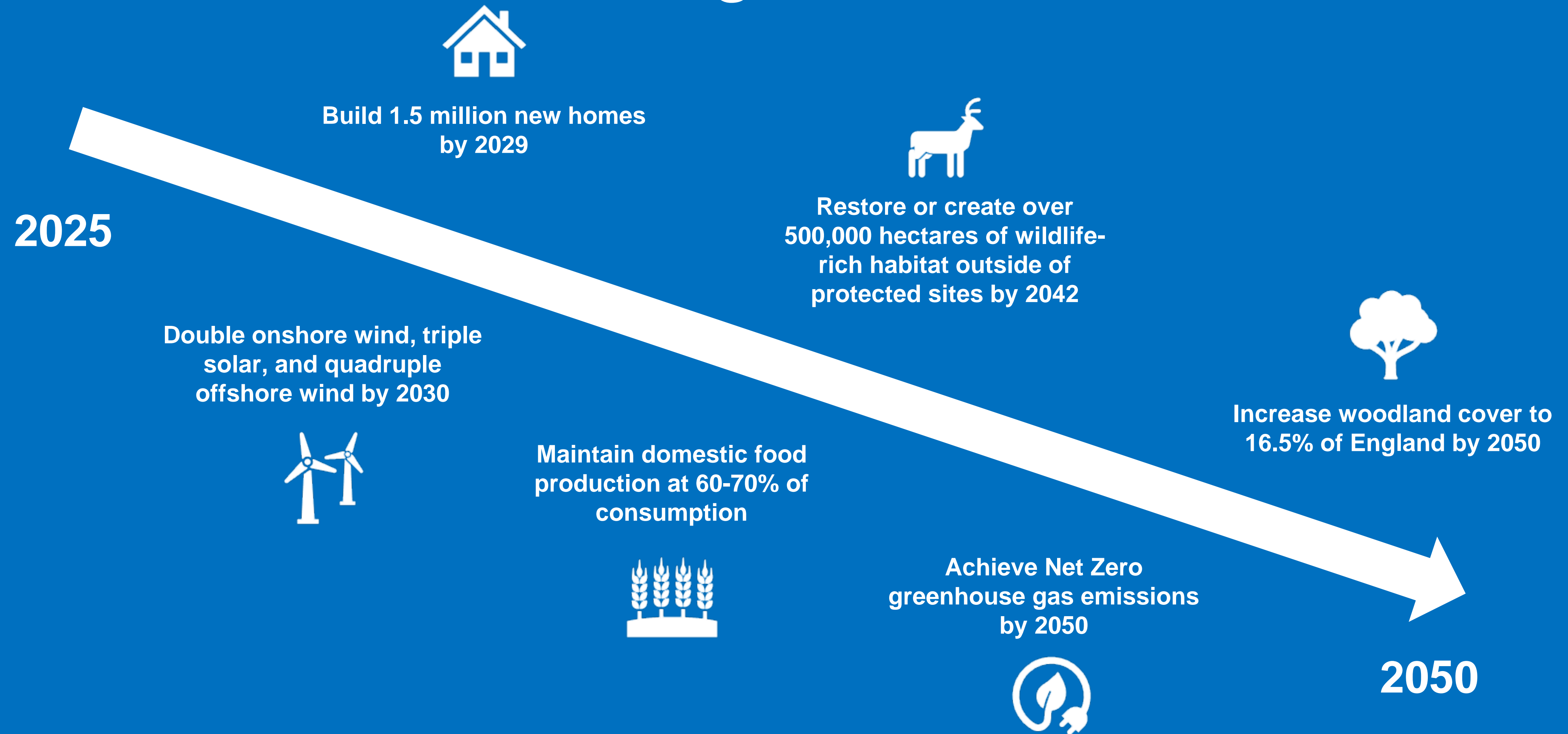
A Land Use Framework (LUF) is a strategic, spatial, cross-departmental framework establishing the land-use objectives of a country and the changes needed to meet those objectives



National and local decision-making based upon a holistic and integrated assessment of land-use demands



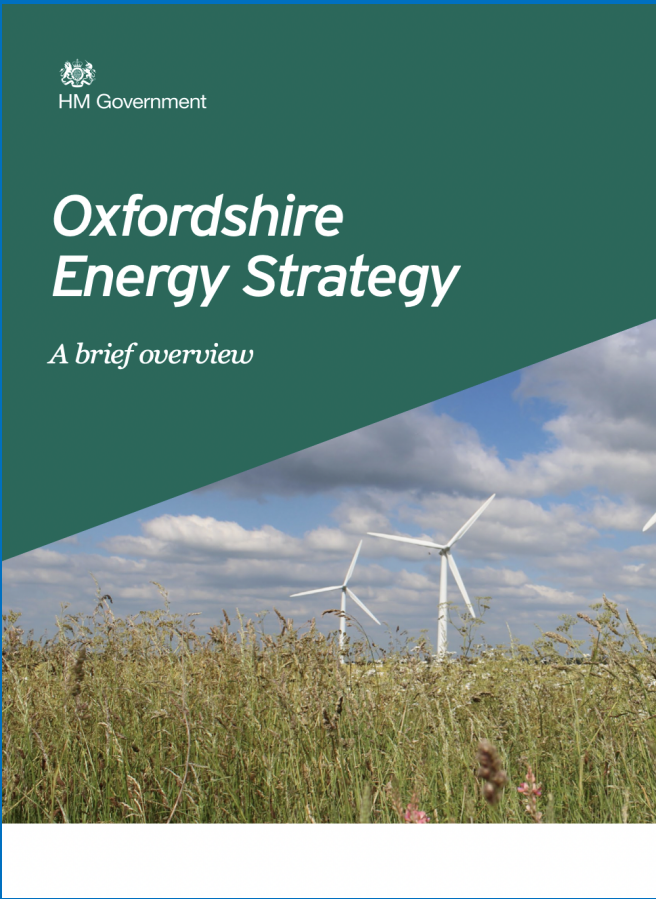
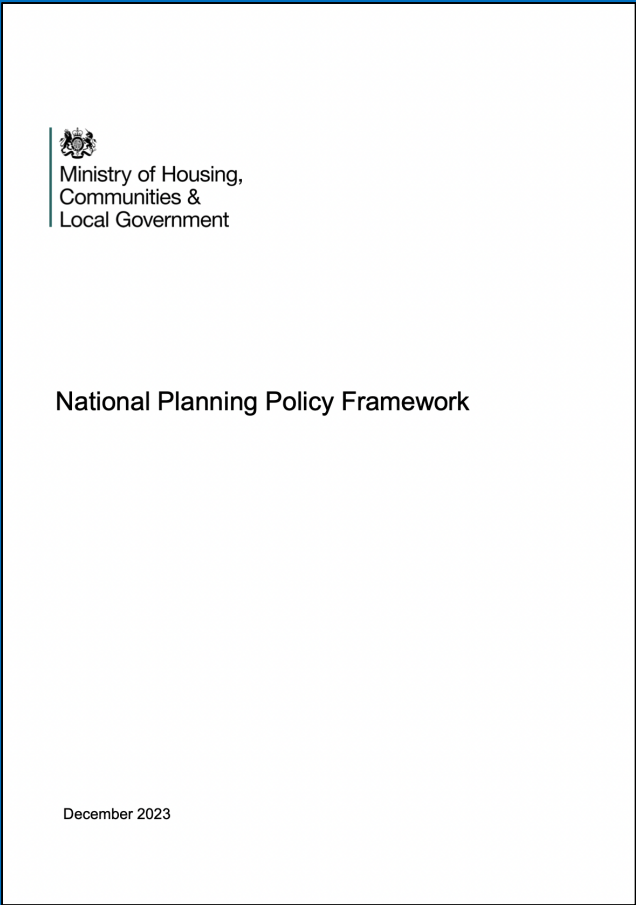
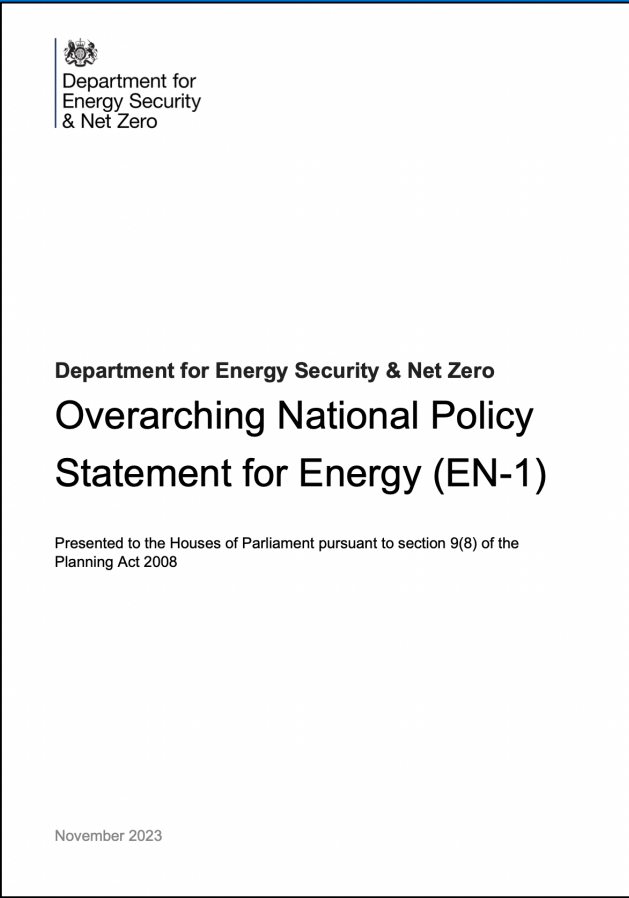
# Elements of a Successful LUF – Long-Term





# Elements of a Successful LUF - Guiding

## Land-Use Framework





# Elements of a Successful LUF - Multifunctional

**Solar Electricity and Crop and  
Livestock Production**



Maximise multifunctionality of land by  
supporting land-uses that can be co-  
located together to produce multiple  
market and non-market outputs

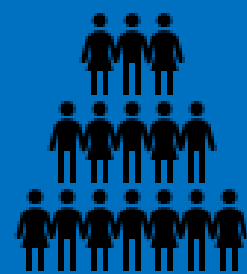
**Offshore Wind Electricity and  
Artificial Reefs**



# Elements of a Successful LUF - Collaborative



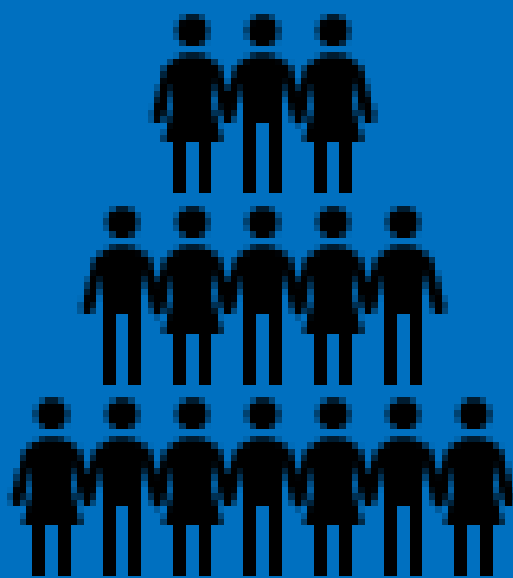
National and  
Local/Regional  
Government



Stakeholders



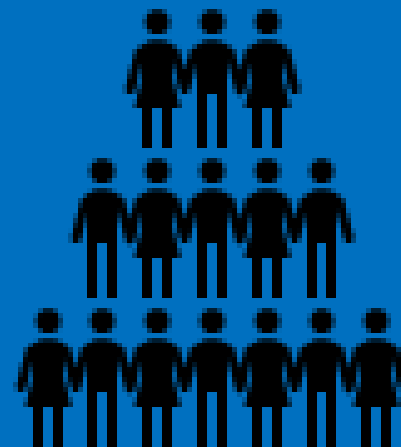
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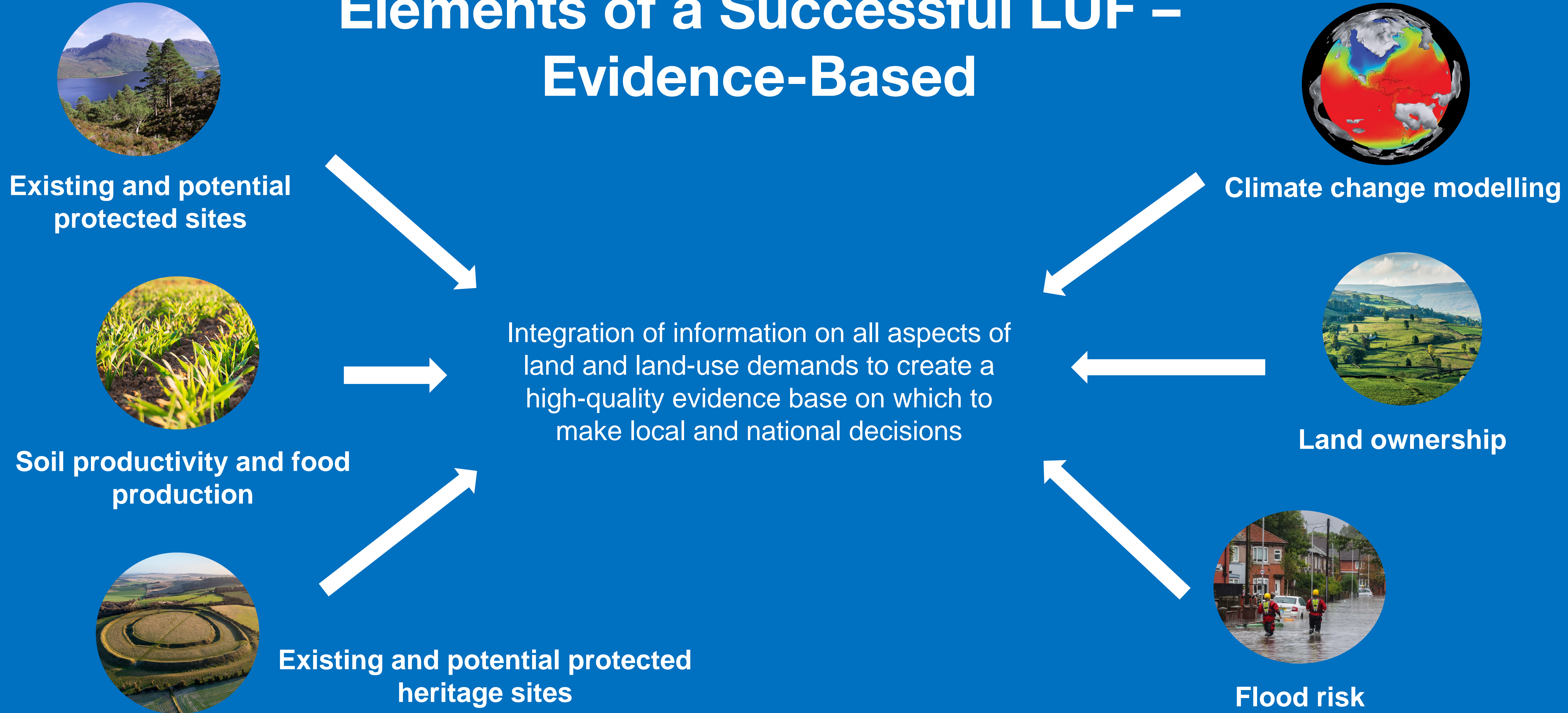


Stakeholders





# Elements of a Successful LUF – Evidence-Based



# Current Status of an LUF for England



Commitment in Government Food Strategy to publish a Land Use Framework in 2023

June 2022



Commitment in 2023 Environment Improvement Plan to publish a Land Use Framework by end of 2023

February 2023

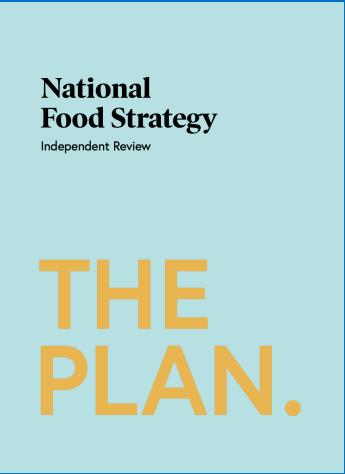


Confirmed at Westminster Forum that an LUF for England would be published before end of 2024

October 2024

July 2021

Recommendation within the National Food Strategy for a 'Rural Land Use Framework'



December 2022

House of Lords Land Use in England Committee Report 'Making the Most Out of England's Land' recommends a Land Use Framework and Commission



April 2023

In response to House of Lords report, commitment to publish a LUF but not for the creation of a Land Use Commission





# Example - EU RAAs

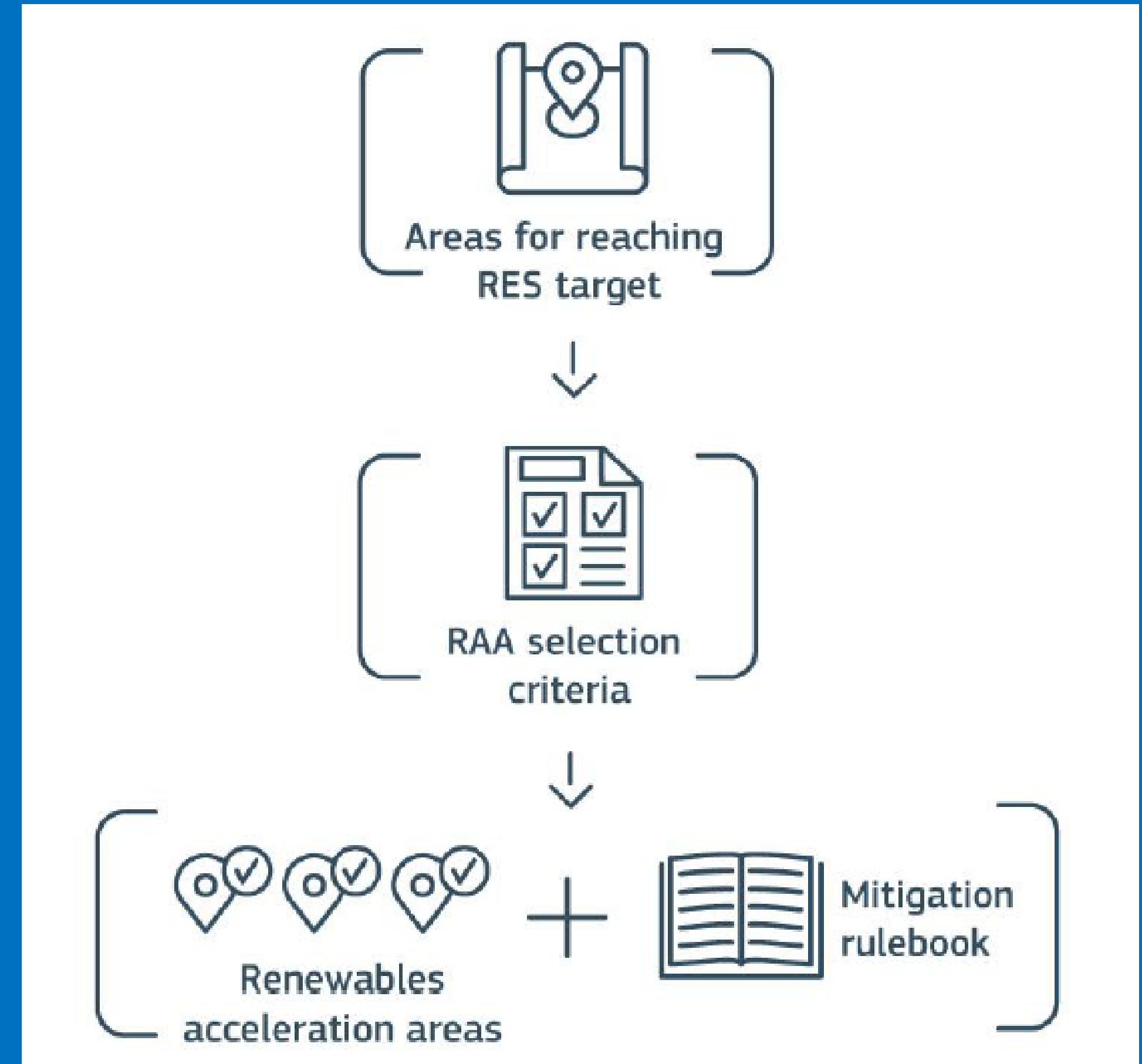


Binding target for the EU to source 45% of energy from renewable energy sources by 2030

Article 15b & 15c → Requires Member States to map and identify areas required for achieving target and the designation of 'Renewable Acceleration Areas'

RAAs prioritised in areas with lowest impact on environment and communities

Supported by Energy and Industry Geography Lab, integrated and comprehensive evidence-base





# Example - Scotland Land-Use Strategy



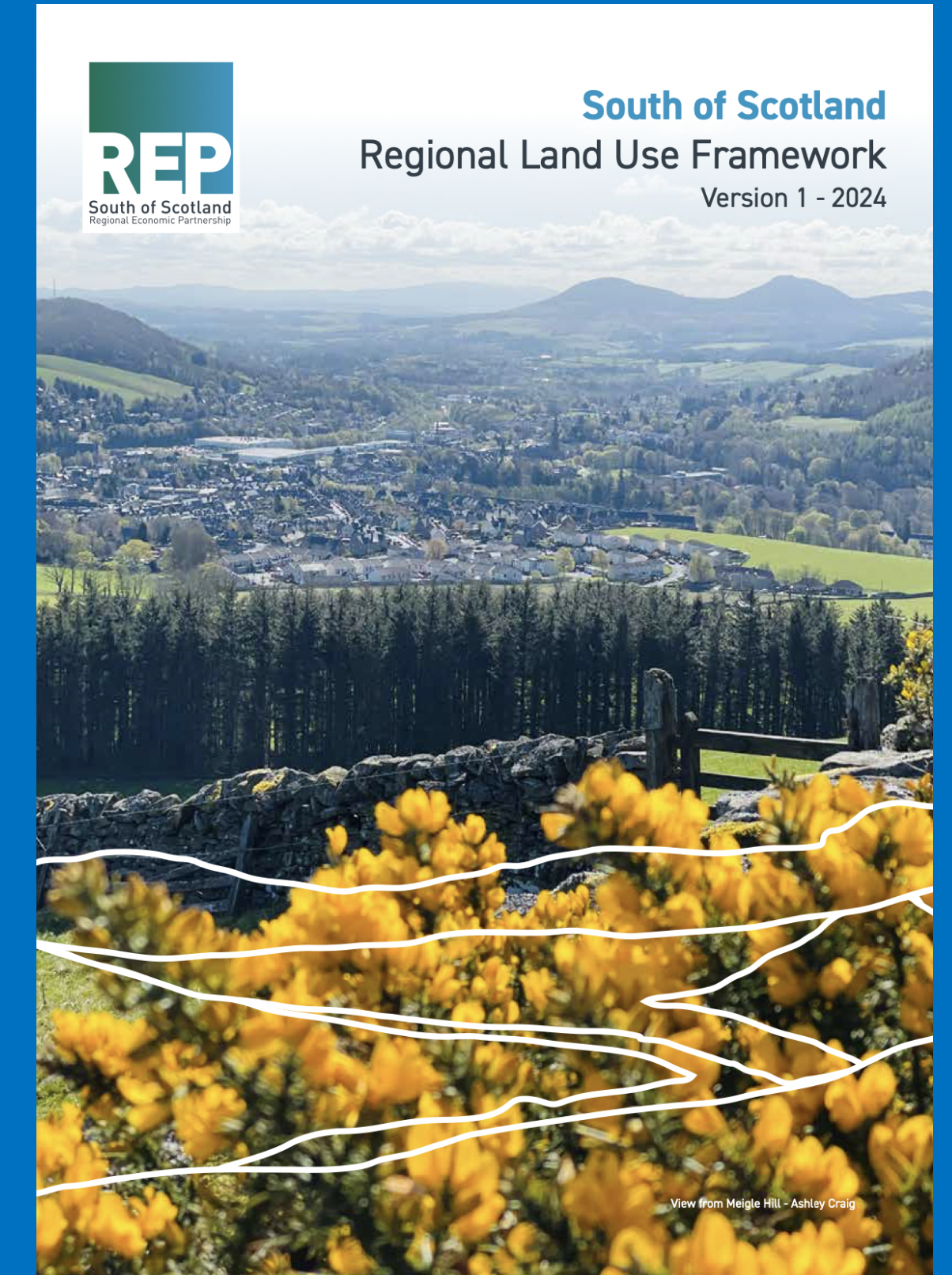
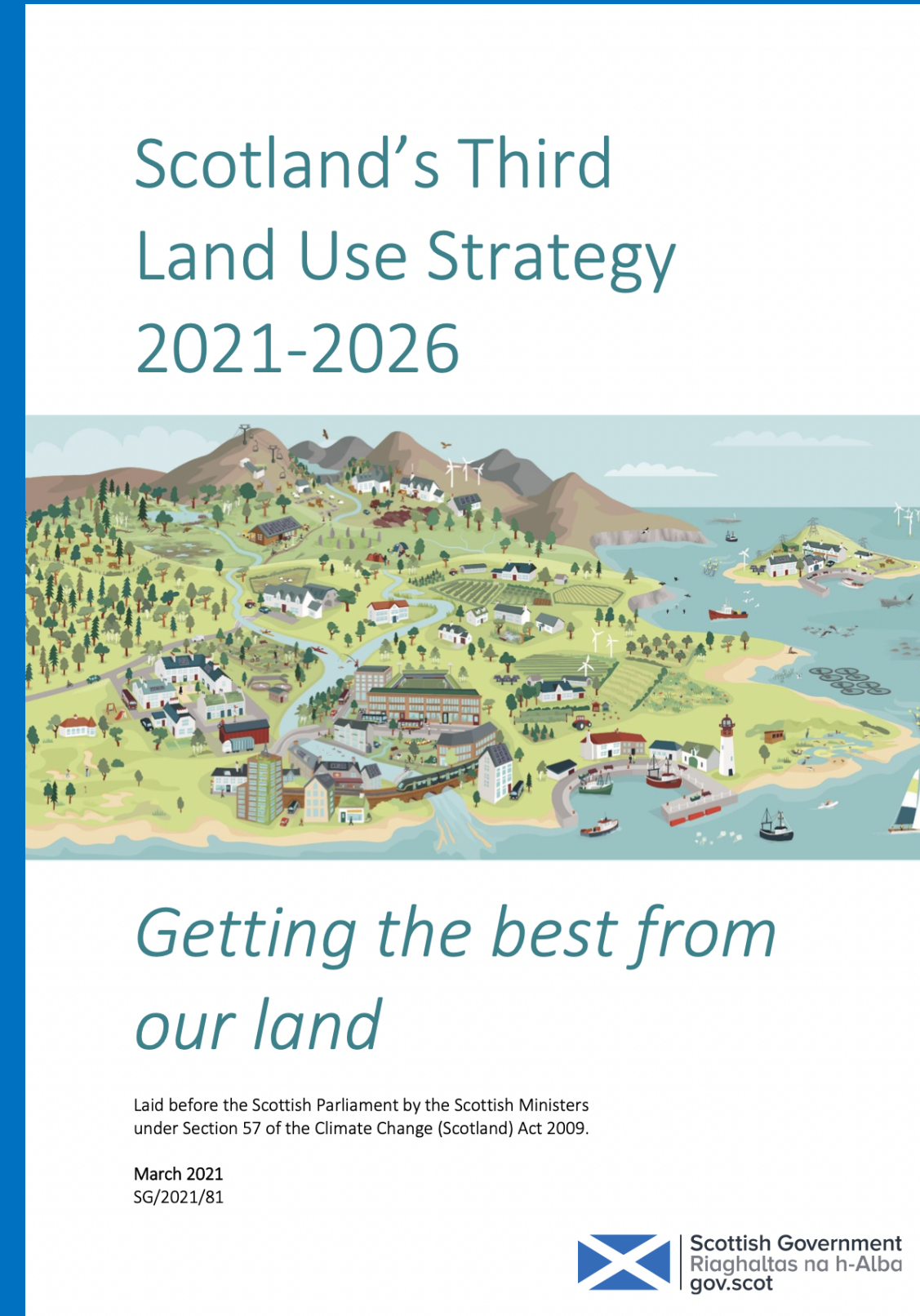
In 2021, Scotland published their Third Land Use Strategy

Supported the creation of Regional Land Use Partnerships (RLUPs) between government and stakeholders to develop Regional LUFs

First RLUF → South of Scotland RLUF published in September 2024

Supports multifunctionality by prioritising co-location of land-uses

Commitments to identify and map areas of importance for different land-uses





# Example - Devon and Cambridgeshire LUFs

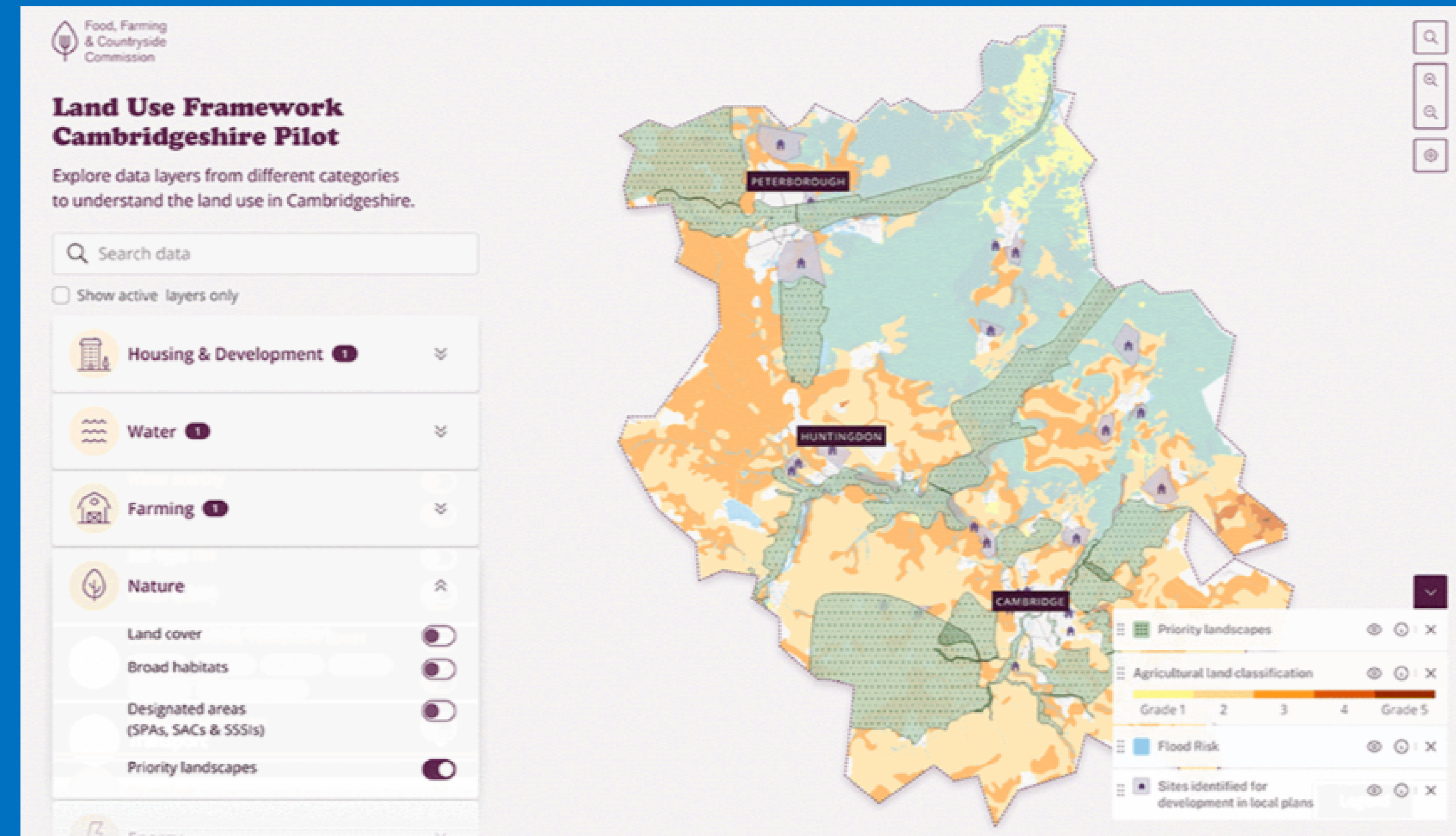


Land Use Frameworks trialled in Devon and Cambridgeshire in 2022 and 2023

Worked with stakeholders and communities to test how land-use principles and data visualisation platform can better inform decision-making

Found stakeholder desire for an LUF and integrated evidence-base was strong and helped improve acceptance of difficult decisions

Lessons learnt formed basis of FFCC Report '*Multifunctional Land Use Framework: The Key to Better Land Use Decisions*'



# Conclusions



## Developers

Engage with local communities and share in the prosperity generated from projects

Ensure multifunctionality is designed into projects from the beginning

Prioritise projects in areas that minimise land-use conflicts



## Policymakers

Convey to local communities the trade-offs, benefits, and need for land used in renewable energy projects

Ensure future strategies are strategic, long-term, collaborative, evidence-based, and support multifunctionality



## Researchers

Advance our knowledge as to how renewable energy projects impact other land-uses and sustainable development

Help practitioners and communities understand how best to use and reconcile land-uses

E.g. E3 Sharing Space for Nature



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