

## Interim Summary Report

### The NATURE Tool - UK Planning Review Desk Study and Planning Workshop Summary 26<sup>th</sup> - 29<sup>th</sup> January 2021

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### Context of this work to the NATURE tool

There are growing ambitions to secure net gains for the natural environment from new built development. Natural features are seen increasingly as an asset that leads to benefits for health, wellbeing, and prosperity. As recognised by the Governments throughout the UK, the built environment is central to the recovery from the COVID-19 pandemic, as well as future sustainable growth. A key challenge for those involved in built environment that is yet to be resolved is how net gains for the environment can be objectively measured and implemented.

The aim of this research and development project lead by WSP and the Ecosystems Knowledge Network, in partnership with Northumbria University, is to co-develop a new tool to support the delivery of net gains for the environment in new infrastructure projects and developments. This will enable built environment professionals to objectively assess and measure to what extent new plans or developments achieve net gains. The project is co-funded by Innovate UK. We have established a strong cross-disciplinary partnership to develop NATURE tool. The aim is that it becomes a widely accepted UK industry standard; a game-changer for the built environment sector. The NATURE tool will be made available publicly and will be free to use.

This report is based on a work phase to understand the current planning systems in the UK and to identify the opportunities and challenges for mainstreaming the NATURE Tool into policy and decision making.

### Background

The UK has four devolved planning systems, each with their own regulations, incentives and mechanisms towards planning policy and practice. Whilst these do differ significantly in their detail and operation, there are some common ingredients to these planning systems which are summarized here:

- All planning systems are there to manage the development and use of land in the long-term public interest. Whilst the exact wording varies, the key convergence points are for the long term and public interest.
- They all operate under the auspices of a **plan-led system**. This means that there is a presumption in favour of the development plan unless material considerations<sup>1</sup> dictate otherwise, meaning that any approved development plan has primacy in decision-making processes.
- The process of plan preparation is similar across all nations with an evidence base and public consultation informing draft policies, strategic sites and proposed land use allocations which, in turn, leads to tests of soundness via appointed inspectors in an examination in public<sup>2</sup>. Within each nation, local/regional/combined authorities have development plans at different stages of development and thus there is an opportunity for the NATURE Tool to feed into new plan or plan review processes. In Northern Ireland there are the first suite of local plans being prepared under new legislation.
- The operationalisation of development plans is through development management procedures for granting/refusing planning permission (development rights have been nationalised). There is a standard process to submit plans for any development ranging from Environmental Impact Assessments (EIAs) and master plans for large developments to simple plans as part of planning application submission and wider consents in keeping with building regulations<sup>3</sup>. These are then subjected to assessment processes on the environmental benefits or disbenefits of schemes in line with development plan policies and wider national policy guidance.
- The concept of betterment<sup>4</sup>, although still not effectively addressed, is applied in all cases using a range of different tools such as planning agreements (site specific) and more strategic tools/levy's (to be more strategically off site).
- All development plans and public projects and programmes currently require an impact assessment (SEA, EIA, and via NATURA 2000 HRA<sup>5</sup>, SRA) under EU law<sup>6</sup>. Whilst responses to the directives vary across devolved nations with regulations, acts and specific tools, the role of impact assessment is to support sustainable development, for example through environmental protection, the application of a mitigation hierarchy<sup>7</sup> and to improve the understanding of the impacts of a particular set of interventions and ultimately to improve

<sup>1</sup> Material considerations are detailed here [https://www.planningportal.co.uk/faqs/faq/4/what\\_are\\_material\\_considerations](https://www.planningportal.co.uk/faqs/faq/4/what_are_material_considerations)

<sup>2</sup> Examination of development plans see here <https://www.gov.uk/government/publications/examining-local-plans-procedural-practice>

<sup>3</sup> Within a review of planning, the building regulation components are often forgotten as they form part of a different department. Building regulations apply in all 4 nations and set approved standards for environment, drainage, noise, air, light and structural performance and other matters which have relevance to the use and operation of the NATURE Tool.

<sup>4</sup> Betterment means devising mechanisms to capture the development value of land for the benefit of the community.

<sup>5</sup> Habitat Regulatory Assessment has specific assessment requirements which may make it less suitable but this could be tested in the tool testing phase.

<sup>6</sup> Post Brexit the approaches to this may change and it does appear devolved nations are developing their own approaches but some form of impact assessment process will still apply.

<sup>7</sup> Mitigation hierarchy involves four sequential steps: avoid, minimize, restore and offset (measure of last resort) <http://www.csbi.org.uk/our-work/mitigation-hierarchy-guide/>

quality of plans and projects. Following Brexit Defra has published a new policy document to explain the changes made to the Conservation of Habitats and Species Regulations 2017 (as amended). The 2017 Regulations are one of the pieces of domestic law that transposed the land and marine aspects of the Habitats Directive (Council Directive 92/43/EEC) and certain elements of the Wild Birds Directive (Directive 2009/147/EC)(known as the Nature Directives). The main points and processes of the new 2019 Regulations is to make them operable from 1 January 2021. These apply to England and Wales.

- Within all UK planning systems, agriculture and forestry developments do not normally require planning permission (they fall under permitted development) but licenses and other approvals may be required. However, such operations have environmental impacts which may benefit from assessment particularly with regard to agri environment schemes.
- Marine planning the responsibility of government departments or agencies, depending on the nation. Spatial planning is not as developed as under terrestrial planning regimes, although impact assessments listed above also apply to marine plans and projects.
- The development of national infrastructure planning lies outside normal town and country planning arrangements. A separate governance framework is in operation for each devolved nation.
- The focus of the planning system has been and continues to be influenced by external drivers:
  - a. The impact of the Covid-19 pandemic has created a strong UK cross government push for a green recovery and this is feeding into national planning conversations.
  - b. The issue of climate change and emergency has led to stronger policy guidance from national government and development plan policy.

The differences in planning policy are important to flag, however, with specific hooks for use of the NATURE Tool identified in bold. It is also important to recognise the words that lie behind policies which range from 'must' to 'should' to 'as appropriate' and therefore play a key role in highlighting priorities for decision making. These vary across authorities in the same nation and across nations.

**Wales** has a strong regulatory background with the following planning and environmental legislation and core documents which serve as key hooks:

**[National Development Framework: Future Wales](#)** is a new 20-year national spatial strategy, with development plan status. It sets out the Welsh Government's policies on development and land use in a spatial context. This will become part of the development plan.

**[Planning Policy Wales 11](#)** is national policy outlining guidance for making planning decisions. The requirement for **green infrastructure assessments**<sup>8</sup> may provide a useful opportunity for use of the NATURE Tool.

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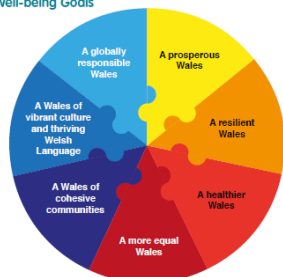
<sup>8</sup> Green Infrastructure Assessments do not yet have Welsh Assembly Government guidance but [Carmarthenshire](#) have developed their own assessment.

[Strategic Environment Assessment Wales Regulations 2015](#) linked to [EU Directive 2001/42/EC](#) and wider sustainability appraisal and [The Town and Country Planning \(Environmental Impact Assessment\) \(Wales\) Regulations 2017](#)<sup>9</sup>. There is potential for the NATURE Tool to be applied as part of these assessments.

[Environment Wales Act \(2016\)](#) put into place the necessary legislation to enable the planning and management of the natural resources of Wales in a more sustainable, pro-active and joined-up way with a duty on public bodies and local authorities to 'maintain and enhance biodiversity'. Here the development of [Area Statements](#) are significant. Each Area Statement outlines the key challenges facing that particular locality and actions required to meet those challenges, with suggested management interventions for natural resources<sup>10</sup>.

[Well Being of Future Generations Act \(2015\)](#) imposes a statutory well-being duty on all public bodies with a legal definition of sustainable development. The well-being goals are illustrated below.

Well-being Goals



[Planning Wales Act 2015](#) is the key legislation setting out the powers and responsibilities of local authorities underpinning PPW10 and the NDF at national level and local development plans at local authority level and their implementation. It also introduces Strategic Development Plans for the regional level.

[Sustainable Drainage Systems Standards for Wales 2018](#) The Flood and Water Management Act 2010 (Schedule 3), which came into effect in Wales on 7 January 2019, **required new developments to include Sustainable Drainage Systems (SuDS) features that comply with national standards.**

**Scotland** has the following planning and environmental legislation:

[National Planning Policy Framework 4 \(forthcoming\)](#). This will form part of the development plan. This sets out the strategic planning priorities and policies where in particular the principles in bold below provide opportunity hooks for testing impact on ecosystem services within the NATURE Tool.

<sup>9</sup> Note that there are a number of different EIA Regulations for each devolved region, depending on the nature of the project and permitting regime.

<sup>10</sup> Here the NATURE Tool might assess or inform proposed intervention recommendations and also be the vehicle to implement interventions.

- (5) Stimulating **new models of low carbon living**, by facilitating further investment in digital infrastructure, building in more space for people to live and work remotely and creating community hubs (links with 8, 9 and 10).
- (8) **Supporting renewable energy developments**, including the re-powering and extension of existing wind farms, new and replacement grid infrastructure, carbon capture and storage and hydrogen networks.
- (9) Harnessing the potential for rural development to act as a lever **to facilitate woodland creation and expansion**.
- (10) **Expanding green infrastructure, biodiversity and natural spaces** to make our places greener, healthier and more resilient to the impacts of climate change.

**Planning Scotland Act 2019** This is the most recent reformed legislation for the planning system. It sets out key planning priorities and lays the foundations for NPF4 and development plans. It also has provision for the creation of **Local Place Plans**<sup>11</sup> which offer potential hooks for community-led plans for the NATURE Tool.

**Environmental Assessment (Scotland) Act 2005**. This legislation requires SEA for public plans or programs and **The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017** similarly requires EIA for certain projects likely to have significant effects on the environment. There is potential for the NATURE Tool to be applied as part of these assessments.

**The Water Environment and Water Services (WEWS) (Scotland) Act 2003**. This made SuDS a legal requirement for all developments except single dwellings that drain to the water environment unless they discharge to coastal waters.

The **Land Use Strategy 2021-2026** is a strategic document that sets out a vision for sustainable land use in Scotland, with three supporting objectives, policies and actions that will help deliver it.

Objective 1: Land based businesses working with nature to contribute more to Scotland's prosperity

Objective 2: Responsible stewardship of Scotland's natural resources delivering more benefits to Scotland's people

Objective 3: Urban and rural communities better connected to the land, with more people enjoying the land and positively influencing land use

The **Climate Change (Emissions Reduction Targets) (Scotland) Act 2019**. requires Scottish Ministers by law to meet a net zero target by 2045.

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<sup>11</sup>Local Place Plans are proposals to the development or use of land. It may also identify land and buildings that the community body considers to be of particular significance to the local area." (Part 1, Schedule 19). Local Place Plans should have regard to the Local Development Plan for their area, as well as the Scottish Government's Strategic National Planning Framework which covers the whole of Scotland.

**England** has the following planning and environmental policy and legislation:

[National Planning Policy Framework 2019](#) (NPPF) and Planning Practice guidance on selected key topics. The NPPF is a material consideration for planning decisions and determines the focus and structure of development plans. **In development, the concept of net gain was established covering environmental, social and economic components.** In the 2019 revision, strategic plans were introduced as mandatory development plans with local plans becoming optional.

[Localism Act 2011](#) established the legal requirement for the duty to cooperate over strategic cross boundary issues; now superseded by statements of common ground (under NPPF).

[25 Year Environment Plan](#) is an HM government publication which **commits the English government to leaving the environment in a better state than which it found it.** Key ambitions and targets have been established in the following areas: Clean air, clean and plentiful water, thriving plants and wildlife, reducing the risks of harm from environmental hazards, using resources from nature more sustainably and efficiently, enhancing beauty, heritage and engagement with the natural environment, mitigating and adapting to climate change, minimizing waste, managing exposure to chemicals and enhancing biosecurity. Concepts of nature recovery networks and ambitious targets for tree planting and peatland conservation are also promoted.

[The Housing and Planning Act 2016](#) introduced 'permission in principle'<sup>12</sup>, brownfield registers<sup>13</sup>, and further secondary legislation confirming the permanent relaxation of permitted development rights.

New primary legislation is proposed via [the Environment Bill](#) and [Planning White Paper](#) which will establish [mandatory net biodiversity gain](#) and **desired net environmental gains.** Future plans include a movement towards a stronger plan led system through the use of zoning and permission in principle according to certain zones. Proposals are also being made to replace impact assessments within a single simpler mechanism.

[The Environmental Assessment of Plans and Programmes Regulations 2004 \(SEA Regulations\)](#) and [Town and Country Planning \(Environmental Impact Assessment\) \(England\) Regulations 2017](#) require environmental assessments at different levels of development. There is potential for the NATURE Tool to be applied as part of these assessments.

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<sup>12</sup> This moves the planning system towards a more zoning based system where permission is more straightforward; being secured if necessary conditions are met rather than every application being considered on its own merits in accordance with development plan policies.

<sup>13</sup> Brownfield registers will provide up-to-date and consistent information on sites that local authorities consider to be appropriate for residential development having regard to meeting specific criteria <https://www.gov.uk/guidance/brownfield-land-registers>



**Northern Ireland** has the following planning and environmental legislation:

[The Planning Act \(Northern Ireland\) 2011](#) is the principal piece of planning legislation in Northern Ireland. It underpins the reformed two-tier planning system which commenced with the transfer of the responsibility for the majority of planning functions from central government to district councils on 1 April 2015. Under the 2011 Act, councils must prepare local development plans for their areas. Detailed provisions for these are in The Planning (Local Development Plan) Regulations (Northern Ireland) 2015 (S.R. 2015 No. 62).

[Strategic Planning Policy Statement \(SPPS\) 2015](#) consolidates some twenty separate policy publications into one document. It sets out the Department's policy on important planning matters that should be addressed across Northern Ireland. The relevant core objectives are: **improving health and well-being; creating and enhancing shared space; supporting sustainable economic growth; supporting good design and positive place making; and preserving and improving the built and natural environment.**

[Framework for cooperation: spatial strategies for Northern Ireland and Republic of Ireland](#) examines the key planning challenges faced by both Northern Ireland and the Republic of Ireland jurisdictions and discusses the potential for co-operation in spatial planning. It sets out a framework for co-operation at different levels within the public sector which should result in mutual benefits.

[Living Places 2014](#) is an Urban Stewardship and Design Guide for Northern Ireland to establish the key principles behind good place making. It seeks to raise standards in design and stewardship of urban places.

[The Environmental Assessment of Plans and Programmes Regulations \(Northern Ireland\) 2004](#) (SEA Regulations) and [Town and Country Planning \(Environmental Impact Assessment\) \(Northern Ireland\) Regulations 2017](#) require environmental assessments at different levels of development. There is potential for the NATURE Tool to be applied as part of these assessments.

## Key Opportunities in the Planning System for using the NATURE Tool

Although each nation has different regulatory and governance structures, they follow broadly consistent policy goals including:

- Respecting and adhering to the mitigation hierarchy in plans, projects and programmes **using SEA (and Sustainability Appraisal where this applies)/EIA**. It is also important to recognise the role that **health impact assessments** can make as part of a wider sustainability appraisal. The NATURE Tool can be used to explore and assess a range of alternative options or scenarios, as well as identify mitigation and enhancement requirements. As the NATURE Tool is a site assessment tool, this would only be applicable where site boundaries can be defined.
- **Protecting and enhancing the natural environment** through the ecosystem services they provide using ideas associated with environmental benefits. This is a core purpose behind the NATURE Tool as it can be used to assess the impact of land-use and management interventions on the provision of ecosystem services and related health benefits.

- Promoting **placemaking** but with important differences noted between Wales which is more local authority driven and Scotland, England and Northern Ireland which have been more developer driven with the role of local authorities to provide more sites.
- Improving quality of development through **design**. Seeing the importance of national design guides/codes but also local place plans/neighbourhood plans where top down meets bottom up. This represents a potential opportunity for the NATURE Tool to become **embedded in good environmental design for delivery of ecosystem services and other benefits for people**.
- Recognising the importance of **health and well-being** and sustainable communities highlights an important role for ensuring cultural ecosystem services are adequately represented in the NATURE Tool which suggests the need to go beyond simple measures of recreation and education. Potential for increased role of NATURE Tool feeding into **health impact assessments**, for example through assessing impacts of greenspace interventions on the provision of good air quality and physical/mental health benefits.
- Planning for the **climate emergency** where there is a strong national government driver for responding to climate change. The NATURE Tool could be used to assess carbon storage by greenspaces and trees. Furthermore, it can be used to assess the role of the soft estate in climate change adaptation through urban cooling and flood regulation.
- **Recognising the value of strategic/landscape scale planning on key issues**. Here, catchment management plans might be relevant (required under the Water Framework Directive). The NATURE Tool can assess water quality and availability impacts of land-use interventions.
- Improving the use of digital e planning for plans and developments. Planning for the Future, the Planning White Paper (August, 2020) is seeking to make greater use of digital technology to improve efficiency, in particular, map-based local plans. The digital platform for the NATURE Tool can be used to help provide stronger visual outputs to improve policy and decision-making processes.
- **Site allocation** for development. The NATURE Tool can be used to assess proposed sites in terms of their ecosystem services performance (how does it benefit people now) and potential (how could the site perform after interventions). This can help in selecting sites for development that do not have much ecosystem services value (to lose) and/or have greater potential for ecosystem services enhancements.

However, it is also important to stress that in all nations there has recently been significant new development in relation to planning policy, some of which is still emerging and this has created some uncertainty and opportunity. In particular, the Brexit process has led to the proposed development of different governance frameworks for environmental protection which does represent a challenge for joined up environmental planning.



## The Planning Policy and Development Pipeline

The NATURE Tool uses information on existing habitat areas, in addition to proposed changes to those areas, both in terms of land-use change and management change. It then calculates the indicative impact on 17 ecosystem services as well as physical and mental health benefits. The NATURE Tool calculates both, the baseline performance (before development) and the proposed future performance (post-development). It furthermore allows comparing different scenarios and also site potential, given the existing habitats. It therefore relies on having some level of habitat data information available – ideally spatial habitat data. This section looks at applications throughout the planning process where this information is both likely to be available and where we believe the use of the NATURE Tool would add value.

### Plan Development

#### Stage 1 Policy ideas and formulation stage

At this initial stage an adapted NATURE Tool version, such as for a specific plan, could add value by translating (often vaguely formulated) policies into priorities against which natural capital impact can be objectively assessed. This would provide clear natural capital objectives which developments should achieve; hence also adding to planning security for developers. The NATURE Tool is purposefully designed to allow local adaptation to such policy priorities. There may be overlap here with the impact assessment processes. One outcome from this work is for local authorities to include policy support for using the NATURE Tool for assessing ecosystem services policies, natural capital and nature recovery networks associated with a plan.

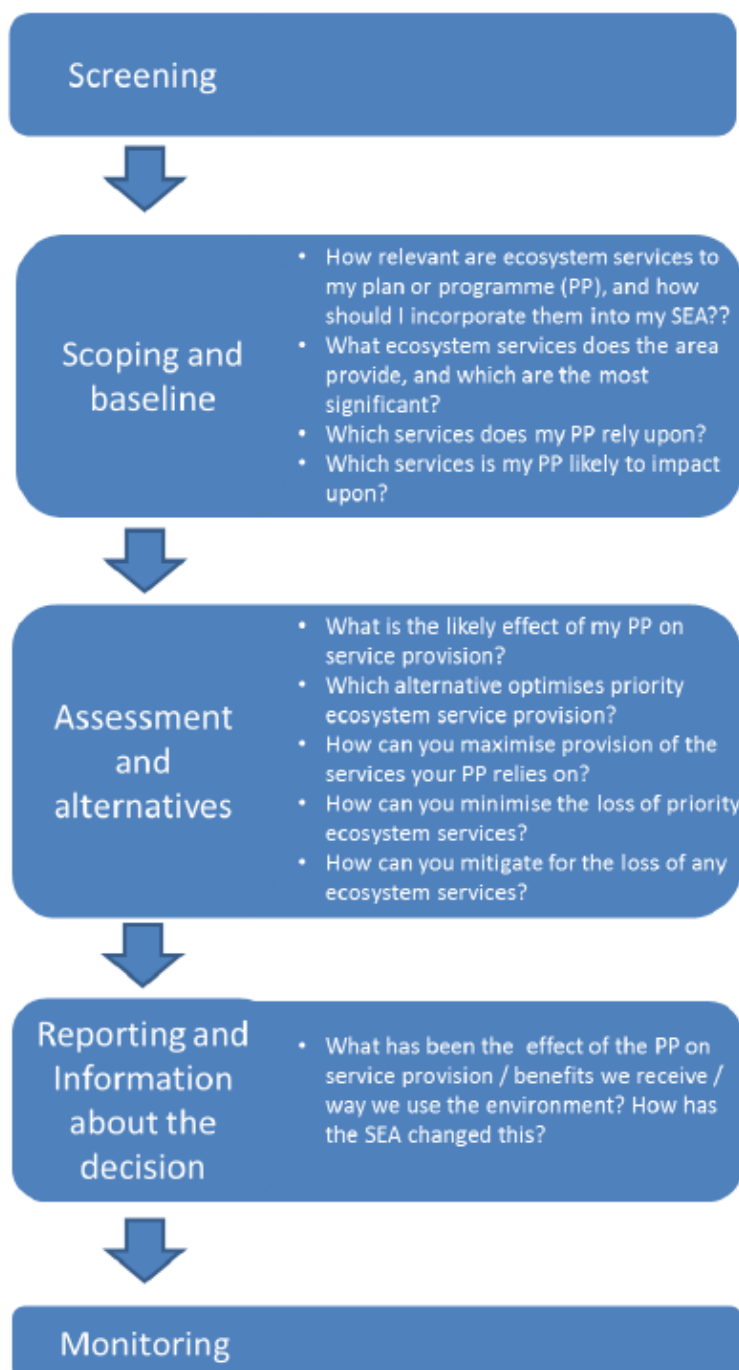
#### Stage 2 Assessing the evidence base

Within development plans there is a comprehensive evidence increasingly recognising the importance and value of natural capital. The NATURE Tool may therefore have a role in informing the evidence base. For some types of evidence, particularly where boundaries are not clear, it won't be possible to apply the NATURE Tool. However, some aspects of plan development will be focused on discrete areas which would benefit from an assessment of ecosystem services to inform decision-making. For example (local authority led):

- To be used to assess suitability via ecosystem services impacts of potential strategic development sites. This is particularly the case for application to the Strategic Housing Land Availability Assessment (SHLAA), which may not be covered by the SEA process (see below). This assessment applies to specific parcels of land and requires an assessment of suitability including impacts on landscapes and nature conservation. Habitat information is often available for these sites, either through prospective developers or high-level classification from mapping data. The NATURE Tool can be used to compare the existing and potential performance of different sites in relation to ecosystem services provision. This could be particularly useful when compared against other natural capital/Green Infrastructure evidence, for example opportunity mapping where for example, services such as recreation or flood management are desirable.
- To be used as a baseline to improve the evidence base for green belt boundaries to assess the impact of release sites and additions on ecosystem services.

- To be used for establishing a natural capital baseline if looking at extending/reducing designated spaces and local designations.

As part of the development plan process there is a legal requirement to undertake a **SEA** (and in England and Wales incorporating Sustainability Appraisal) of the proposed plan. The diagram below helps to illustrate the way the ecosystem services assessments can be used in SEA.



**Figure 1: Impact assessment: Processes and NATURE Tool opportunities**

SEA for local plans is often undertaken at a strategic level, so applied to either policies or broad development areas where there is insufficient boundary and habitat information to be able to apply the NATURE Tool. However, it is acknowledged that SEA is applied at different plan-making levels and there will be instances where boundaries are defined, allowing a basic assessment using the

NATURE Tool. Examples include comparing alternatives (a current SEA weakness in many plans) in relation to specific policies, sites or strategic level Masterplans. The NATURE Tool can potentially be used to assess impacts on key ecosystem services for different options. The results of this can be used to feed into decision-making for progressing options and help justify any preferred options. The NATURE Tool could furthermore be used to define ecosystem services priorities and objectives at this stage which could then be assessed once boundaries are defined later on.

## Project Development

Moving from the focus on development plans, the NATURE Tool can be applied in a number of ways to development of new infrastructure in the planning process. At this level, and to support planning applications, habitat and land-use change information is likely to be available.

**Outline.** The NATURE Tool can be used to assess proposed Masterplans (developer led) for a proposed development. Application of a natural capital approach to Masterplan development has already been documented for sites such as Tresham Garden Village<sup>14</sup>. Use of an adopted methodology provided by the NATURE Tool, include an assessment of site potential at the Outline Planning Application stage may be really useful to help shape the design of the development for full planning permission. A planning application could also benefit from defining clearly measurable objectives or policies such as “our aim is to increase recreational opportunities by 30% in line with the NATURE Tool”.

**EIA.** For large and significant developments, EIA is required. It is noted that natural capital and ecosystem services assessments are not specific requirements of the EIA Regulations. However, increasingly in local government policies and plans, natural capital is being considered as a key element influencing objectives and decisions. It is prudent that these topics are increasingly incorporated into EIA assessments in acknowledgement of evolving client requirements (see Figure 1). Appendix 1 sets out the main stages of EIA (and other environmental assessments) and how the NATURE Tool could add value. This should be early in the development process to influence its design and impacts (both positive and negative) through adherence to the mitigation hierarchy, otherwise there is a risk that it can be used to justify a particular project later down the line. Hence the need to use it to identify and compare a range of alternative locations or design options/impacts with respect to natural capital impacts (amongst others).

Non-Statutory EIA or similar assessments are also undertaken within the planning system. These may occur in situations where the scheme falls under the Permitted Development or in instances where environmental assessments are undertaken in support of planning applications when EIA is not required. The NATURE Tool is equally applicable to non-statutory environmental assessments as they often undergo the same process of data collection, option selection, assessment and reporting. Appendix 1 sets out in more detail the application to environmental assessment processes.

Other statutory **Assessments** including Health Impact Assessment (HIA), Habitats Regulations Assessment (HRA), Air Quality Assessments (AQA) and Water Framework Directive Assessment (WFDA), are undertaken for development either to meet requirements of specific legislation or local planning policy guidance. Although use of the NATURE Tool doesn't specifically apply to these requirements, there may be instances where application of the NATURE Tool can complement these

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<sup>14</sup> <https://www.naturalcapitalsolutions.co.uk/wp-content/uploads/2019/10/TGVnatcapsummary.pdf>

parallel assessments. Potential examples include assessing the potential physical and mental health benefits of greenspaces within residential development or changes in land-use within a catchment and related water quality improvements.

**Full Planning.** To assess any development for full planning permission (detailed Masterplan) set within the parameters of proportionality of the tool. This can be used to help support a planning application case (developer led) by objectively measuring positive natural capital impacts and/or defining objective targets for such improvements. For example, the new policy in the South Downs National Park local plan which requires an explicit assessment of the impact of any development on ecosystem services before approval can be granted. As a core policy its implementation would clearly benefit from the NATURE Tool (Figure 2).

#### Core Policy SD2: Ecosystem Services

1. Development proposals will be permitted where they have an overall positive impact on the ability of the natural environment to contribute goods and services. This will be achieved through the use of high quality design, and by delivering all opportunities to:
  - a) Sustainably manage land and water environments;
  - b) Protect and provide more, better and joined up natural habitats;
  - c) Conserve water resources and improve water quality;
  - d) Manage and mitigate the risk of flooding;
  - e) Improve the National Park's resilience to, and mitigation of, climate change;
  - f) Increase the ability to store carbon through new planting or other means;
  - g) Conserve and enhance soils, use soils sustainably and protect the best and most versatile agricultural land;
  - h) Support the sustainable production and use of food, forestry and raw materials;
  - i) Reduce levels of pollution;
  - j) Improve opportunities for peoples' health and wellbeing; and
  - k) Provide opportunities for access to the natural and cultural resources which contribute to the special qualities.
2. Development proposals must be supported by a statement that sets out how the development proposal impacts, both positively and negatively, on ecosystem services.

**Figure 2: South Downs SD2 core policy**

**Planning Assessments and Recommendations.** The tool could be used by the local authority to assess a planning application that has attracted significant opposition on environmental grounds. In these aspects, it might be helpful to use it to understand and secure improved environmental benefits of particular planning agreements and developer levies (local authority led). Ideally, local planning authorities could require developers to use such a tool as the NATURE Tool to demonstrate that the impact on ecosystem services has been positive. They could also require certain improvements such as a 10% enhancement for a particular ecosystem service. The numeric nature of the NATURE Tool might be very useful here because whether such requirements will be met can be objectively assessed and measured. For example, Policy SD2 of South Downs National Park Local

Plan<sup>15</sup> provides an excellent model for which the NATURE Tool can be a powerful aid for developers (Figure 2). It can also be used as part of wider net gain considerations including on and off site benefits.

**Third party consultation responses.** The tool could be used by NGOs (e.g. Wildlife Trusts) to help build their consultation responses to developments.

The tool has potential to be used as part of **detailed design** of aspects proposed in the planning application. For example, Landscape and Ecological Management Plans are often a planning condition for larger developments. The NATURE Tool can be used to help inform detailed planting design and schedules for reinstatement of construction areas – specifically looking at the functionality for people.

**Monitoring and enforcement.** The NATURE Tool could also be used by local planning authorities to assess and monitor that, what has been promised by the developer in terms of natural capital performance at planning has also been achieved in delivery. Again, the objective nature of the numeric tool model could offer a strong mechanism to reveal non-compliance and inform potential disputes – especially if the NATURE Tool has been the agreed assessment tool to measure success from the outset.

**Nationally Significant Infrastructure Planning.** There is a different planning regime for assessing schemes of national significance and procedures also vary across the UK. However, the impacts of large-scale development would apply to EIA and Masterplans (and SEA to National Policy Statements); again their use with citizens as part of wider participatory and E planning might be of use in early stage consultations.<sup>16</sup>

Here the project team argue that EIA provides the best mechanisms to be integrated into such schemes as these, by definition, will require impact assessments.

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<sup>15</sup> South Downs national Park Policy SD2

Development proposals will be permitted where they have an overall positive impact on the ability of the natural environment to contribute goods and services. This will be achieved through the use of high quality design, and by delivering all opportunities to: a) Sustainably manage land and water environments; b) Protect and provide more, better and joined up natural habitats; c) Conserve water resources and improve water quality; d) Manage and mitigate the risk of flooding; e) Improve the National Park's resilience to, and mitigation of, climate change; f) Increase the ability to store carbon through new planting or other means; g) Conserve and enhance soils; h) Support the sustainable production and use of food, forestry and raw materials; i) Reduce levels of pollution; j) Improve opportunities for peoples' health and wellbeing; and k) Provide opportunities for access to the natural and cultural resources which contribute to the special qualities. Development proposals must be supported by a statement that sets out how the development proposal impacts, both positively and negatively, on ecosystem services.

<sup>16</sup> This point equally applies to other developments but issues of proportionality apply.





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## **Appendix 1 – Application of the NATURE Tool to Environment Assessment**

An Environmental Statement produced under the EIA Regulations requires assessment of population, human health, biodiversity (for example fauna and flora), land (for example land take), soil, water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage including architectural and archaeological aspects, and landscape. Natural capital and ecosystem services assessments are not explicitly required by the Regulations, however, it can be used as a tool to support several of these topic assessments given the strong cross-over.

Initial stages of statutory EIA comprise:

- Screening – Determining whether a scheme falls within the remit of the EIA Regulations and whether it is likely to have a significant effect on the environment and requires an assessment. The tool would not be applicable at this stage, as the primary focus of the EIA Screening process is to determine whether an EIA is required under specific requirements of the Regulations.
- Scoping – Determining the extent of issues to be considered within the required Environment Statement. As well as this, the applicant can request details on what information is needed to be included from the Local Planning Authority (LPA). The inclusion of natural capital and ecosystem services can be proposed at this stage to strengthen topic-based assessments. Baseline information is collected to support scoping and depending on the level of information available, a baseline assessment of natural capital using the NATURE Tool may be undertaken. Preliminary assessments can also be made using the tool to demonstrate potential for significant impacts or benefits, although this is less likely depending on how far the development is progressed.

Other applications in EIA (which is also applicable to other non-statutory environmental assessment processes) are set out below. This is divided between options assessment, which is sometimes undertaken prior to an EIA to determine for example the best site for a power station, route for a pipeline or new road and the EIA of the preferred option. The latter is further divided into baseline, assessment and mitigation which are key components of the EIA process.



NATURE Tool Output	Pre-EIA (Options Selection)	Environment Impact Assessment (Baseline, Assessment and Mitigation)
<p><b>The existing natural capital performance of a site (baseline natural capital assessment)</b></p>	<p>A key environmental element of option selection is determining the value of potential sites and assets within and around these sites. The quantification of the natural capital values, both on site and surrounding, can be used to compare different proposed sites.</p>	<p><b>Baseline:</b> The inclusion of natural capital and ecosystem services elements in the baseline assessment would strengthen the overall assessment at a time in the scheme development where sufficient information is available to properly inform the calculation.</p> <p><b>Assessment:</b> The quantification of other elements such as the overall habitat area have the potential to support assessment results and recommendations later in the assessment. Detailed baseline information can inform assessment results as the baseline vs scheme scenario is used to assign a value of significance of effect, the key output of an Environmental Statement assessment.</p> <p><b>Mitigation:</b> As with the assessment stage, detailed baseline information has the potential to assist in informing and justifying proposed mitigation strategies. The NATURE Tool would also allow defining these in quantitate units.</p>
<p><b>The expected future natural capital performance of a site (after-scenario natural capital assessment)</b></p>	<p>Information on schemes may be limited at an early design stage such as option selection. However, an effort to provide estimates of the effect of proposed options on potential sites can provide a valuable comparison of options and has the potential to be well integrated into the options selection process, providing quantifiable values to compare proposed options.</p>	<p><b>Assessment:</b> The integration of this output of the NATURE Tool has the potential, as mentioned above, to support assessment results and recommendations within the Environmental Statement assessment.</p> <p>At this stage in the design, mitigation measures such as habitat provision and design elements such as temporary land take and the fixed scheme boundary should be known. These elements can input into the calculation to provide an informed output and provide a quantifiable change from the baseline to construction and operation scenarios. This comparison is a key Environmental Statement output for specialist assessments, allowing the assignment of significance of effects for the scheme. In particular, elements such as landscape assessments can take advantage of the outputs ability to measure units in different assessment years (e.g. 30 years after construction) to show the impacts of any newly planted habitat and vegetation over time.</p>

<p><b>The maximum natural capital potential of a site (natural capital potential score)</b></p>	<p>Similarly to the above, this NATURE Tool output has the potential to provide a valuable comparison of potential options through the expanded consideration of a site’s baseline value and the future (continued management and presence of existing habitats) ecosystem services provision assessed against the ecosystem services potential of a site. This will allow for a more inclusive consideration at options selection of both the current baseline and future design opportunities.</p>	<p><b>Mitigation:</b> The application of potential ecosystem value could be used to support mitigation recommendations for the retention of key habitats or the provision of specific habitat types/ecosystem service impacts. Knowledge of the potential natural capital of the site provides a valuable comparable metric to ensure that mitigation strategies such as planting go far enough to compensate habitat loss and other effects of a scheme – not just in terms of area, but also functionality.</p>
<p><b>The impact of land-use and / or management changes for a site (natural capital change score)</b></p>	<p>The outputs of this calculation are unlikely to be applicable at the pre-EIA stage as the consideration and assessment of mitigation and monitoring regimes will not yet be undertaken due to lack of information.</p>	<p><b>Assessment:</b> In similarity to the expected future natural capital of a site calculation, this output has the potential to inform assessment results for specialist topics such as biodiversity and landscape. In particular, the percentage change result from the baseline to after-scenario can provide a quantifiable demonstration of the effects of the scheme on surrounding habitats, informing the assignment of significance of effects (post mitigation) for the baseline vs scheme scenarios.</p> <p><b>Mitigation:</b> Similarly to above, the quantification of the impacts of different management strategies has the potential to provide a valuable comparable metric to ensure that the most effective mitigation strategies are proposed to manage and compensate for adverse effects of a scheme.</p>
<p><b>Advanced NATURE Tool Assessment</b></p>	<p>Potential option locations for comparison in options selection have the potential for useful application of the Spatial Context element of the advanced selection to assist on valuing the environmental impact of scheme locations. As the NATURE Tool has particular applicability to the options selection stage an effort to incorporate as many useful elements into the outputs can</p>	<p><b>Baseline:</b> The addition of spatial context to a baseline assessment has particular applicability to the consideration of alternatives assessment within the Environmental Statement. Although at this point in the process the option selection stage should have properly collected this information, the advanced assessment can be used to demonstrate that the site chosen for the scheme development is the most appropriate from an environmental perspective.</p> <p><b>Assessment:</b> The addition of the advanced elements such as management regimes has the potential to increase the accuracy of the calculation outputs and allow for increased integration in specialist assessments by considering a</p>



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provide the most accurate site and scheme valuation possible, with positive implications for the environmental aspect of options selection.

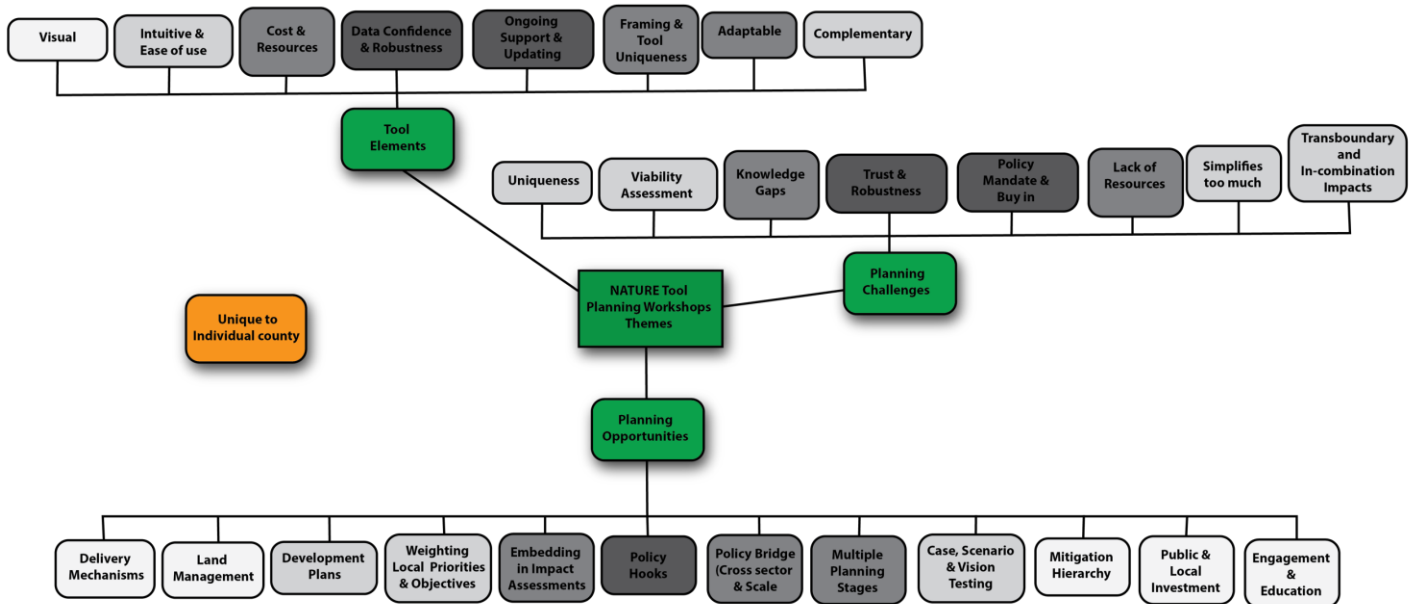
pre and post mitigation scenario for a scheme. This element is a key aspect of Environmental Statement assessment outputs and is used to demonstrate the migration strategy proposed is sufficient.

**Mitigation:** The added specifics of management regimes (which can be proposed as mitigation elements for example) can be quantified and used to demonstrate the impacts of different mitigation approaches and inform the selection of the most effective mitigation strategy for a scheme.

## Appendix 2 - NATURE Tool: UK Planning Review Workshops 26<sup>th</sup> - 29<sup>th</sup> January 2021

### Background

We would like to thank all participants for their time and insight provided to the planning workshops. This summary note distils that information across ALL (England, Wales, Scotland & Northern Ireland) workshops to provide a summary to inform the development of the tool to maximise its suitability and impact across the four planning systems. The workshops were attended by a broad range of planning professionals including local authority planners, ecologists and environmental specialists, housing developers, consultant ecologists, landscape architects, representatives from statutory agencies, academics and RTPi representatives. The tool background presentations can be viewed for [England](#), [Wales](#), [Scotland](#) and [Northern Ireland](#) respectively. Feedback and insights from the workshops were reviewed and grouped into overarching themes, which are shown in the figure below. The green boxes represent the key sessions which have been coded into common themes; the darker boxes representing those themes mentioned most by participants. These themes are unpacked in the following sections. On page 6 a further diagram illuminates these themes in proportion to the times they occurred.



### First impressions of the tool

Before delving into the respective session’s findings, it’s important to highlight some of the first impressions and responses to the tool presentation as this gives clear signals on tool framing and communication to secure that crucial initial traction.

Some responses highlighted that the **visual presentation of the tool outputs were too complex** to grasp in their current form and that a more simplified and impactful presentation would improve first impressions. Here there was **potential confusion over the data input requirements**; and its validity and accuracy and the staff resource needed.

There were some initial questions over the uniqueness, time requirements and merit of the tool **“Why would I need to use it”**. This makes the framing of the tool’s function and added value important to clarify from the outset, particularly where there were other tools in existence/under

development with potential overlap: e.g. in England – Natural England’s Environmental Benefits from Nature Tool (in development; formerly known as Eco-metric Tool). Participants also recognised the importance to tie the NATURE Tool into **existing statutory obligations** and work imperatives to capture audiences. Thus, the **ecological, climate and covid emergencies and green recovery were all seen as powerful hooks** to build the tool upon. However, it was clear that **each nation had its own regulatory hooks** (legislation and planning policy) that should be used to maximise tool impact and relevance as far as is possible. This led to some concern that the tool needed some level of **national government support**; either explicitly or implicitly through formal recognition of the need for improved natural capital outcomes.

### **Tool Elements: Lessons for development of a successful tool**

Across the four workshops there was a consensus around the core ingredients that make up a successful (and failed) tool. **Data confidence & robustness** was a dominant theme. Participants highlighted the dangers of lack of clarity of what/how/when data was used, therefore eroding trust and confidence, especially in terms of the age of data and its goodness of fit with the ecosystem services it was acting as proxy for. This was compounded in terms of the confidence in the data for a local context and how tool data account for differences between urban and rural environments. Thus, the ability for tools to be **adaptable and flexible** to different environment and types were important considerations. There was also concern around **on-going support and updating** the tool. Without these safeguards built in beyond an initial funding phase, data could all too easily become outdated with tools failing to be embedded and/or used in the planning process.

Participants also reported that **on-going technical support and training**, with ongoing resources and discussion forums was needed for the longevity of tool use. In addition, **clear guidance** on its use and interpretation is needed to prevent ‘gamification’. **Cost & time resources** are also a key consideration as all local authorities and most developers are under tight financial constraints. The tool needed to be free to use and access but crucially needed to be cost effective and proportional in terms of time spent using it for the outputs secured. Thus, clear estimates were needed as to how long it would take users of the NATURE Tool to carry out basic and advanced assessments. Successful tools used currently by planners were **easy to use**; many previous tools have been too complex, making them intimidating. For the tool to gain cross-sector uptake it would need to be easy to use by not only specialists but also developers, development management and the wider industry. Here, the use of a ubiquitous software such as excel was favoured. The specific **purpose of previous tools** was not always clear meaning there was confusion as to what benefits it offered over other evidence bases and approaches. Therefore **“good” tools were those that could be embedded within existing planning processes** filling a specific and required need.

The issue of **scalability** was also important with the need for endorsement of the tool across national, regional and local scales of government. Furthermore, there needed to be enough people familiar with the tool to recognise and accept it as a legitimate decision support tool in what is a quasi-judicial process (this included planning inspectorates too). One interesting point that emerged was that planners due to the nature of their role seemingly did not have a lot of experience of using tools like the NATURE Tool suggesting even more attention needed to be made on the perceived value and benefits to its use.

## Key Opportunities in the Planning System for using the tool

A wide range of opportunities for the NATURE Tool were reported across the four workshops. The most commonly reported one was focussed on using existing **policy hooks**. Although each nation has different regulatory and governance structures, they follow broadly consistent policy areas, including Environmental Net Gain & NPPF in England; National Development Framework, Well-being and Future Generations Act, SuDS & Climate action plans in Wales; National Planning Framework 4, & Digital Strategy in Scotland; and WANE Act & Open Space Strategies in Northern Ireland. Here the ability to tie into emerging frameworks was key.

Participants also identified opportunities for the tool to be used as a **policy bridge**; reconnecting silos not only across economic and social agendas, but also involving land management & planning across multiple spatial scales. A recurrent opportunity was to embed the tool in the **sustainability appraisal process** (including impact assessments SEA, EIA & HRA), particularly for testing alternative options and for monitoring. There was also agreement that the tool could be used in a range of **strategic planning processes and development management applications** at different stages in **the policy cycle and development pipeline** to embed natural capital as a cross cutting theme. However, respondents were cautious in all these opportunities indicating the need for case studies that expose its value.

In strategic and forward planning processes, the spatial pattern of development, major site allocations and designations were all highlighted with local authorities seen as the principal user. Whilst in development management processes (planning applications), the developer was seen as the principal user, perhaps supported by policy endorsing the need for using tools to demonstrate natural capital outcomes. Some participants also thought the tool had potential to assess **national infrastructure developments including coastal and marine developments**, but others viewed this as potentially dangerous, perhaps stretching the tool's flexibility across too many different governance frameworks. Another widely supported opportunity was for **scenario and vision planning**; for example, as a master planning exercise to explore scenarios for net gain options and multifunctional benefits or to scope green belt developments to increase natural capital. This linked with the opportunity for **weighting local and national priorities** through gamification when exploring development options; for example prioritising flood risks.

Other opportunities evident across multiple workshops included opportunities for **land management** especially around post-brexite agri-environment schemes and **delivery mechanisms** such as Green Infrastructure and Sustainable Drainage Systems (SuDS). Other opportunities included how the tool could link with the **mitigation hierarchy**, especially in terms of the avoidance stage. Finally, the tool was seen by multiple participants as an important tool for **engagement and stakeholder education**, as it captures people's values and can be used in participatory approaches to developing local priorities. This linked to opportunities for attracting local and national **financial investment** from the use of the tool.

## Key challenges in the Planning System for using the tool

Compared to the opportunities for the tool in the planning system, participants across the four workshops expressed a greater deal of consistency in terms of the perceived challenges for the NATURE Tool. The most reported challenge was the need for securing **policy buy in and mandate**



for the tool to be used and embedded in the planning systems. This may be problematic given diverging policy landscapes and differing priorities across the UK. At present, there is no statutory policy mandate for environment net gains and therefore no strong policy push for such a tool. If natural capital is not included in legislation it may need to be referenced in supplementary guidance as a minimum to generate sufficient traction for its use. This is especially challenging when paired with another reported barrier: **lack of resources**, as the time needed to undertake and interpret an assessment is off-putting if the tool's use is voluntary and not mandatory. This is problematic given participants expressed **knowledge gaps** in terms of natural capital, which is not yet mainstreamed and indeed is compounded by differing environmental vocabularies across the UK.

One of the other key challenges related to **trust and the robustness** of the tool's design and operation. Concerns were expressed over the tool's approach being too simplistic and reductionist to capture the complexity of natural capital with extensive case study testing needed to mitigate this. The building of this trust is key for the tool's ability to withstand legal scrutiny throughout multiple stages in the planning system; a challenge which could all too easily make or break the tool. Another important element in terms of robustness was its ability to hold weight against housing & development needs when it came to the **viability stage**. In an alternative vein some felt it may lead to the over reliance on the tool for a complex issue resulting in using the tool blindly without understanding what is going on and understanding its limitations as a decision support tool. Other challenges were related to how the tool could account for cross-boundary and in-combination effects, which are significant in planning.

### Unique to individual countries

Whereas there was a great deal of consistency and overlap in the inputs from participants across the whole of the UK, there was also some unique challenges and opportunities which came out across the four workshops. It has already been highlighted that specific policy hooks exist around the four countries, it's also important to stress that **each nation has its own set of environmental and planning legislation** with its own **terms and policy pathways**. In this summary note it is wrong to try and meet the specifics but rather we have tried to identify generic hooks from the legislation associated with climate, biodiversity, health and well-being (Covid) and green recovery and key elements in planning processes and the policy cycle. The specific regulatory hooks for each country do suggest the need for bespoke national guidance to maximise potential impact. Furthermore, it was clear that countries have different datasets which may allow for improved data reliability beyond the standardised data sets.

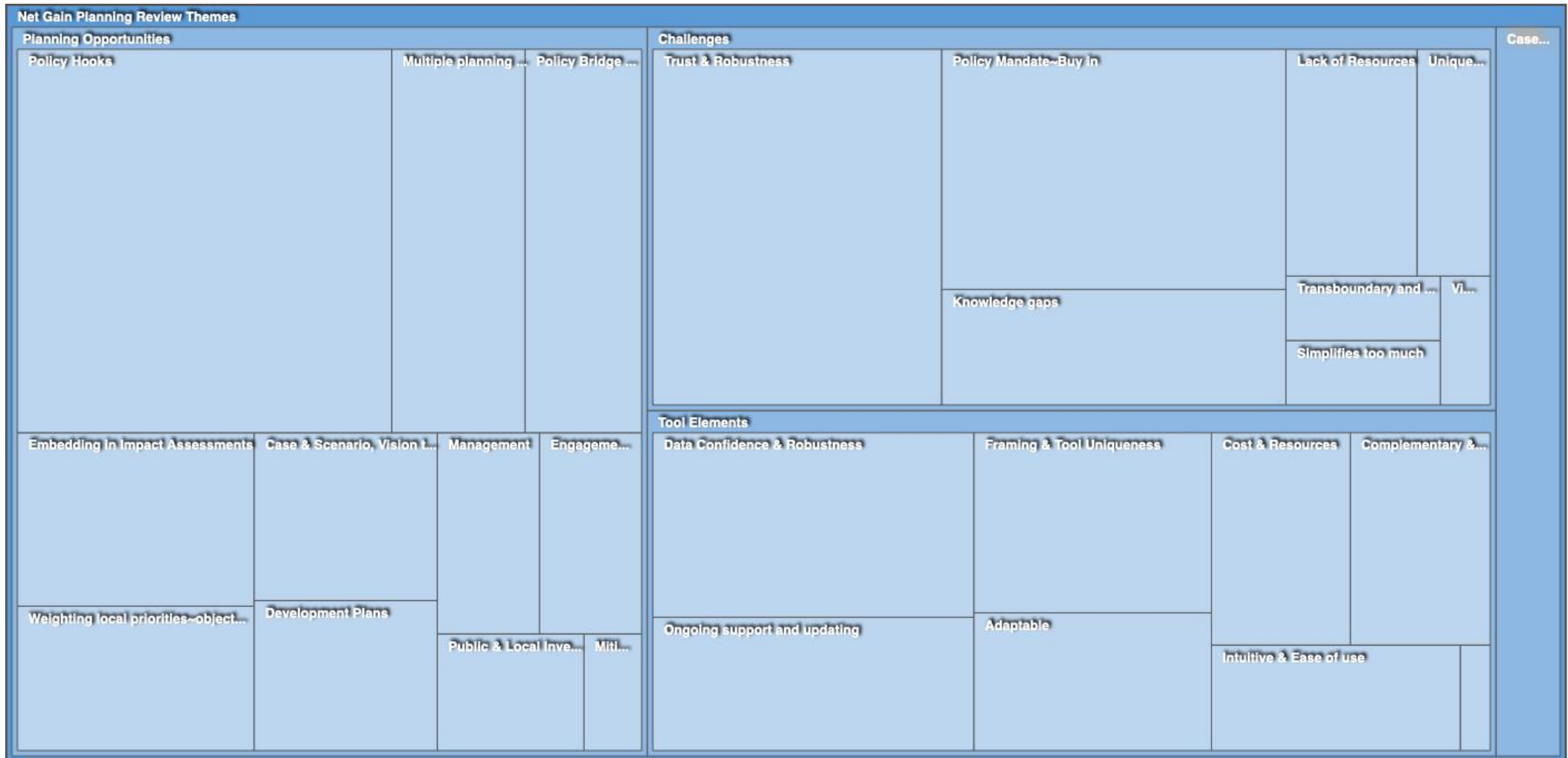
An important requirement for **Wales** related to the need for the tool and its guidance to be **bilingual with a Welsh language version**. Another unique element in Wales was the **focus on ecosystem resilience, as part of SoNaRR**; which at present the tool doesn't directly account for. In **Scotland** there was recognition of using the tool to help shape **green belt policy** options and also to input into local place plans albeit with recognition of difficulties of local communities using the tool. In **Northern Ireland** participants from local planning authorities highlighted that the use of tools is limited or absent from their day-to-day work, therefore, creating an additional barrier to the uptake of the NATURE Tool. An additional opportunity identified in NI and Wales was for its use in marine spatial planning.



## Horizon scanning: how to make the tool resilient for future change

As well as making the tool fit for purpose in the current UK planning systems, the longevity of its success is dependent on its ability to adapt and be **resilient to future and changing policy landscapes** across the UK. The use of horizon scanning in the workshops allowed for some of the future challenges and opportunities to be identified. Due to the devolved nature of the UK, one important theme was how or if the tool might be supported in the event of **independence**, a point especially topical in Scotland, raising questions over **shared data**. The bullets below capture the other points raised.

- Linking the tool to Design codes, Net Zero – England
- Post-Brexit policy landscape particularly relating to ELMS and other agri-env schemes
- Embed natural capital in next SPPS review which is now due – Northern Ireland
- Green and post Covid recovery
- Decarbonisation agenda – multifunctional benefits
- Emerging natural capital legislation throughout the UK



Identified workshops themes and relative weight of occurrence i.e. larger the box the more that theme was mentioned in the workshop.