

## Introduction

To mark the halfway point of the **Land Use for Net Zero, Nature and People (LUNZ) Hub**, **Work Package 3 (WP3)** co-leads **Star Molteno** (Eunomia Research & Consulting) and **Professor Paula Harrison** (UK Centre for Ecology & Hydrology) reflected on their progress and plans for their initiative - the Net Zero Futures Platform.

The following is a summary of their presentation, and the five principles that underpin their approach.

---

### 1) Creating a shared framework for national pathways

Star began by explaining WP3's purpose: to **co-create a common, comparable framework** for scenarios and pathways that all four UK nations can use. The aim is to make outputs **consistent in structure and language**, while still allowing space for **nation-specific priorities**.

The work started with an **evidence review** and an **in-person workshop** in **April 2024**, which brought together **40 stakeholders** to shape the early approach. In **early 2025**, WP3 hosted **four nation-specific online workshops**, involving **88 participants** across all sessions, each held over **two days per nation**.

During these workshops, participants developed **initial “proto-pathways”** using a **shared action framework**. These were then refined into **balanced pathways** that integrate benefits for **Net Zero, nature, and people**. Two key outputs have already emerged:

- **Concise pathway narratives**
- **Priority action grids**

These are currently under **consultation** ahead of a further stage of **modelling**, which Star and Paula discussed later in the interview. Ultimately, the goal is to deliver a set of **stakeholder-owned national pathways**, combined with a **UK-wide synthesis**, ensuring **policy relevance** and **broad buy-in**.

---

### 2) Scenarios vs pathways: distinct roles, shared clarity

Paula then clarified the **difference between scenarios and pathways**, a distinction central to WP3's work.

- **Exploratory Scenarios** explore **multiple plausible futures**, acknowledging different levels of **uncertainty**.
- **Pathways**, by contrast, are **target-seeking scenarios: planned sequences of actions** designed to meet **defined 2050 goals** — including **Net Zero, biodiversity recovery, and sustaining rural communities**.

These pathways are built from **specific actions**, such as **woodland creation, peatland restoration, and changes to livestock practices**. They are shaped by **drivers** that either **enable** or **constrain delivery**, grouped into four main areas:

- **Social** (e.g., public values, farmer identity, consumption)

- **Technological** (e.g., innovation in agri-food)
- **Economic** (e.g., markets, green finance)
- **Policy/governance** (e.g., land tenure, agricultural and biodiversity policy, geopolitical stability)

The co-leads emphasised that the pathways are **not predictions**. Instead, they are **decision-support tools**, designed to **test choices, evaluate trade-offs, and assess feasibility** under different future conditions.

---

### 3) How pathways are constructed: priorities, “game-changers” and balance

Star and Paula went on to describe how the **pathways take shape** during the workshops. Each nation begins with a **set of actions** grouped into **eight broad categories**:

1. Arable and horticulture
2. Livestock
3. Farm-level management
4. Energy
5. Woodland
6. Habitats
7. Peatlands
8. Socio-economics

Participants **adapt these actions** to their **national contexts** and **prioritise them** from **very low to very high**, depending on whether their pathway focuses on **Net Zero, nature and biodiversity, or people**.

Next, they identify “**game-changing**” actions — those with particularly **high impact** or **high priority** — and map the **critical enabling drivers** that would make all actions possible. The different Net Zero and nature pathways are then **overlaid** to reveal **synergies** and **trade-offs**, which participants use to create a **balanced pathway**.

Finally, workshops will continue next year, during which stakeholders will consider how to ensure the pathways are **transformative yet achievable** — sometimes **scaling ambition up**, at other times **scaling it down**. This structured approach allows for **comparability across nations** while retaining **national specificity**.

---

### 4) Capturing diverse stakeholders’ perspectives

The co-leads stressed the importance of involving a **wide range of stakeholders** throughout the process. Workshops include representatives from **government, NGOs, landowners, researchers, industry, and farmer organisations**. While some farmers participate **directly**, others are represented **indirectly** through organisations that work closely with them.

Because **land use and management** vary between nations, the **stakeholder mix** differs in each workshop, which influences the **pathways** and their **priority actions**. For example:

- In **England**, **lowland peat management** emerged as a major **game-changing action**.
- In **Scotland**, **deer management** and **crofting** featured as drivers.

These variations highlight the value of a **shared overarching framework** that still allows for **geographic and policy divergence**.

---

## 5) From co-design to modelling and refinement

Looking ahead, Star and Paula explained that the **co-designed pathways** are now being **parameterised for modelling** using tools such as the **FABLE land use model**, **emissions calculators**, **spatial impact models**, and **simplified cost–benefit analyses**.

This modelling will assess each pathway's **feasibility**, **effectiveness**, **trade-offs**, and **co-benefits** across **greenhouse gas emissions**, **biodiversity**, **food production**, and **land use**.

A **third round of workshops** is scheduled for **January 2026**, where stakeholders will **review model outputs**, **refine the pathways**, and **align national and UK perspectives**.

The **final results** are expected in late 2026 to early 2027, delivering a **shared, evidence-based set of pathways** and a **practical decision-support tool** to inform **integrated land use policy-making**

---



UK Research  
and Innovation



Department  
for Environment  
Food & Rural Affairs



Department for  
Energy Security  
& Net Zero



Scottish Government  
Riaghaltas na h-Alba  
gov.scot



Llywodraeth Cymru  
Welsh Government



Department of  
Agriculture, Environment  
and Rural Affairs