

Developing a Landscape Scale Natural Capital Tool for Scotland

Donya Davidson

Natural Capital Manager

donya.davidson@nature.scot

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Taking a natural capital approach

To take a natural capital approach, you first **need the tools to quantify the ecosystem services**

We conducted a review of existing natural capital tools and found that there were **no existing tools could meet our requirements** to support a **natural capital approach** at landscape scale in Scotland

This is why we are **creating a new tool with the following criteria:**



Open access
and **free** to use

No pay wall or
subscriptions
required.



GIS based so
you can see
spatial priorities
clearly on a
map.

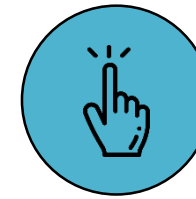


Useable at the
landscape scale:

- Take a **holistic and integrated** approach to managing land.



Based on a
transparent and
scientifically robust
methodology.



Simple and easy
to use. No
technical skills
required to
operate it.



Developed using a
co-design process
so that it meets
the needs of the
end user.

- **Nature finance** opportunities. Many investors want projects worth £500 million +

The Co-Design Process

Co-design is the act of **creating with stakeholders** specifically within the design development process to ensure the results **meet their needs and are usable**.



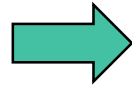
Developing a natural capital tool

We are developing the tool in **partnership with Liverpool John Moores University**:
the authors of **EcoServR** (adapted from EcoServ-GIS)



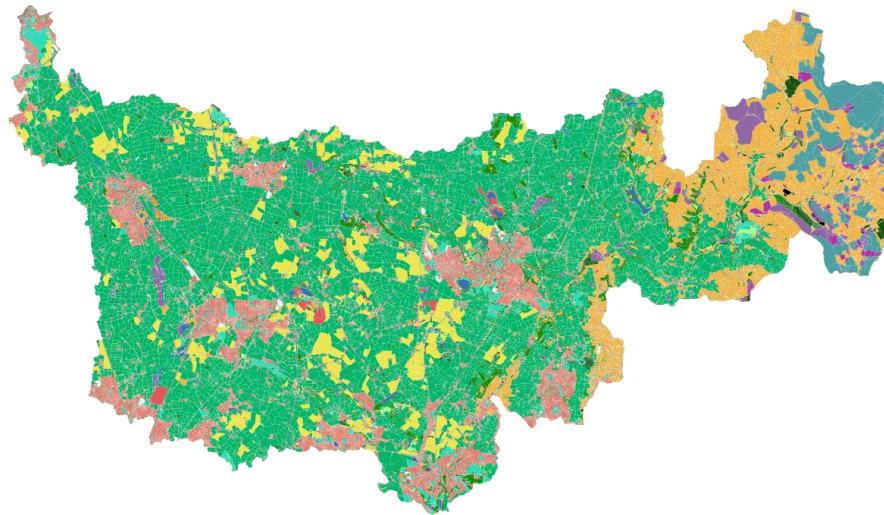
Geospatial data layers :

- OS MasterMap
- OS Greenspace
- Natural England Priority Habitat Inventory
- CORINE land cover
- Crop Map of England
- National Forest Inventory
- Terrain data (DTM)
- Public Rights of Way
- CRoW Open Access land
- Designated sites



Environmental baseline

shows natural capital assets



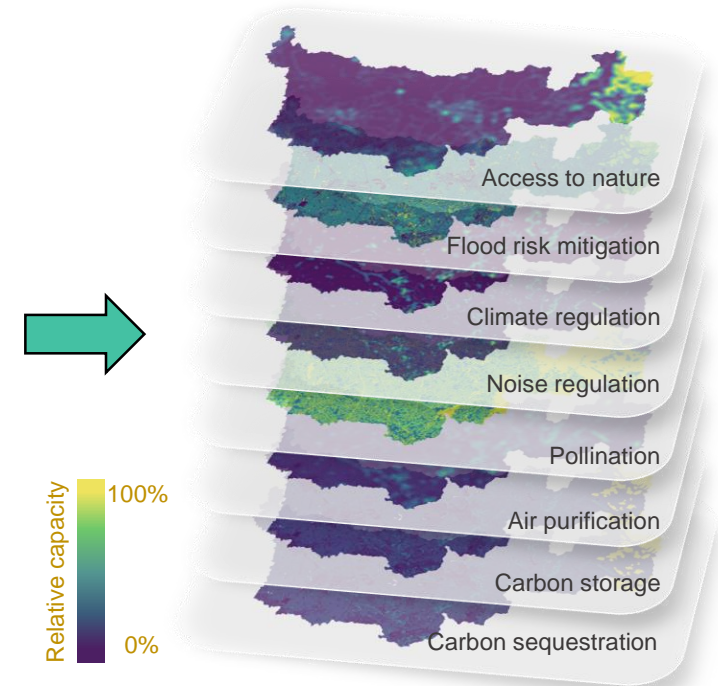
Socio-economic datasets:

- Census data (population density)
- Index of Multiple Deprivation (health data)



Ecosystem service 'capacity' layers

shows where there is provision of ecosystem services



Ecosystem service 'demand' layers

shows where there is need for more ecosystem services

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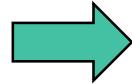
Creating a user friendly
front end that doesn't
require technical
expertise to operate



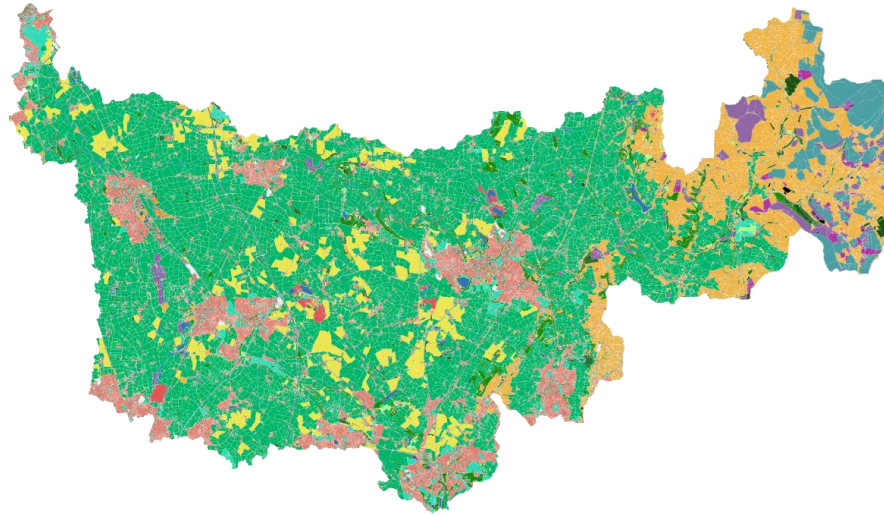
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'Scotifying' the
datasets so that they
work in Scotland



Environmental baseline
shows natural capital assets

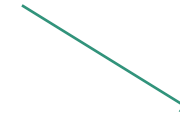


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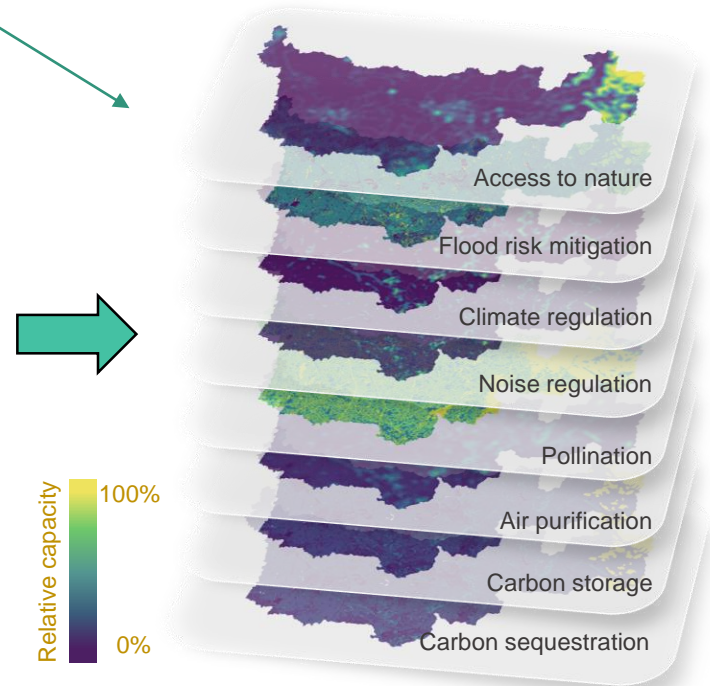


Optimising the models
to work in Scotland and
meet the needs of the
co-design group



Ecosystem service 'capacity' layers

shows where there is provision of
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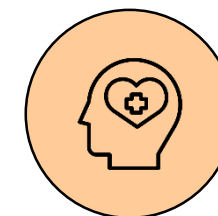
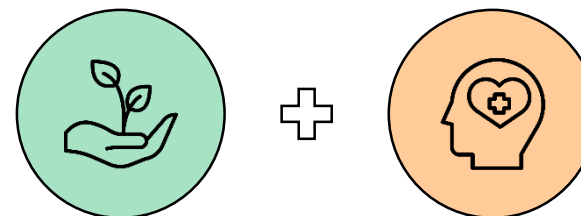
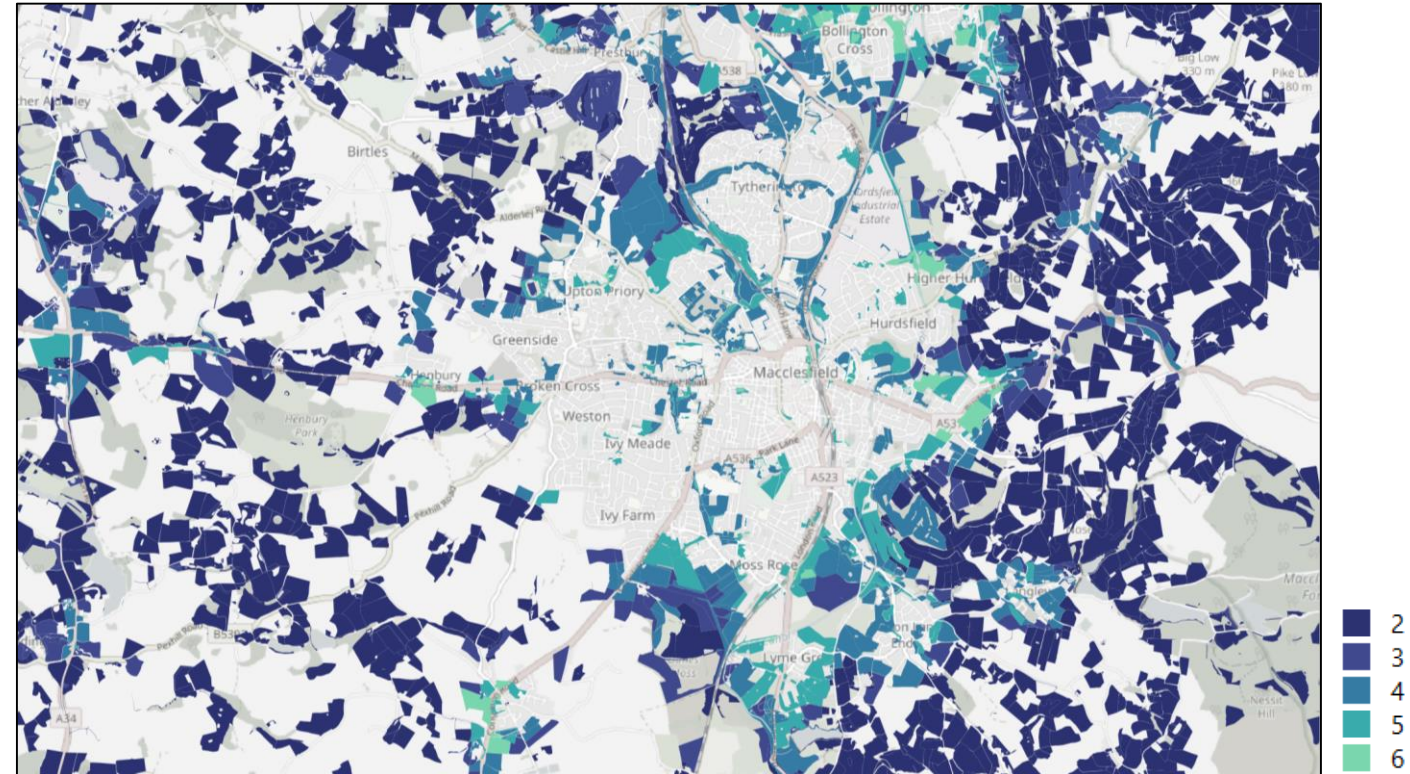
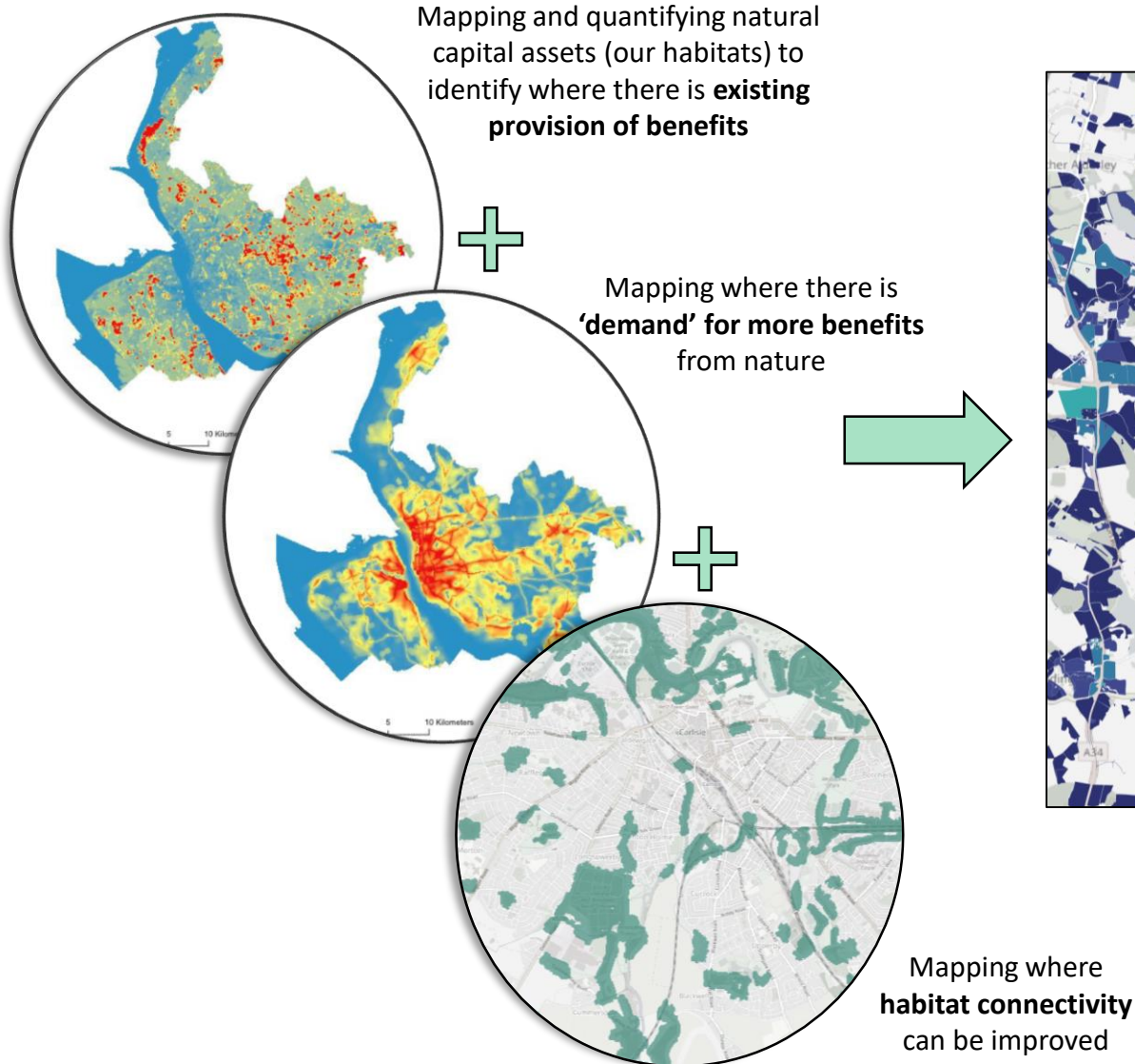
Ecosystem service 'demand' layers

shows where there is need for more
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Prototype development

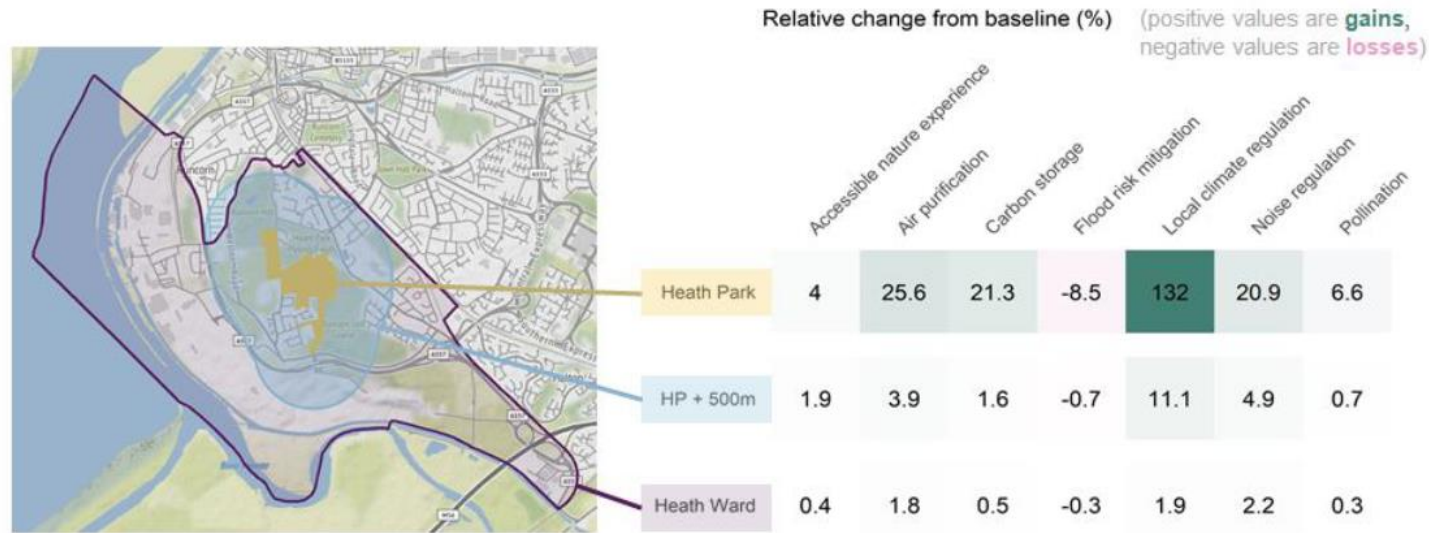
Mapping **opportunities** in the landscape

Combining this information to **identify opportunities** which have multiple benefits for both people and nature



Prototype development

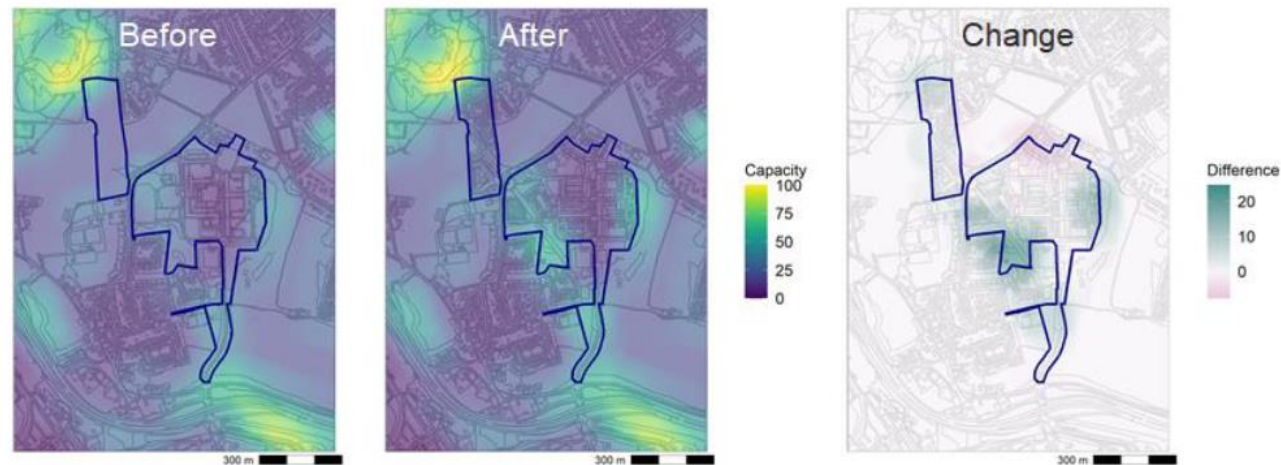
Running **scenario analysis and uplift calculations** to look at the potential gains and losses of ecosystem services



Plus much more potential for other types of functionality:

- Adding **biophysical and economic value** to certain ecosystem services
- Automated **reporting** functions

Air purification



How can this tool support decision making?

Based on the feedback we have gained from our **four co-design workshops** and the **prototype piloting with seven landscape scale partnerships**, the tool can support decision making in a variety of ways



Provide the **data and evidence** to:

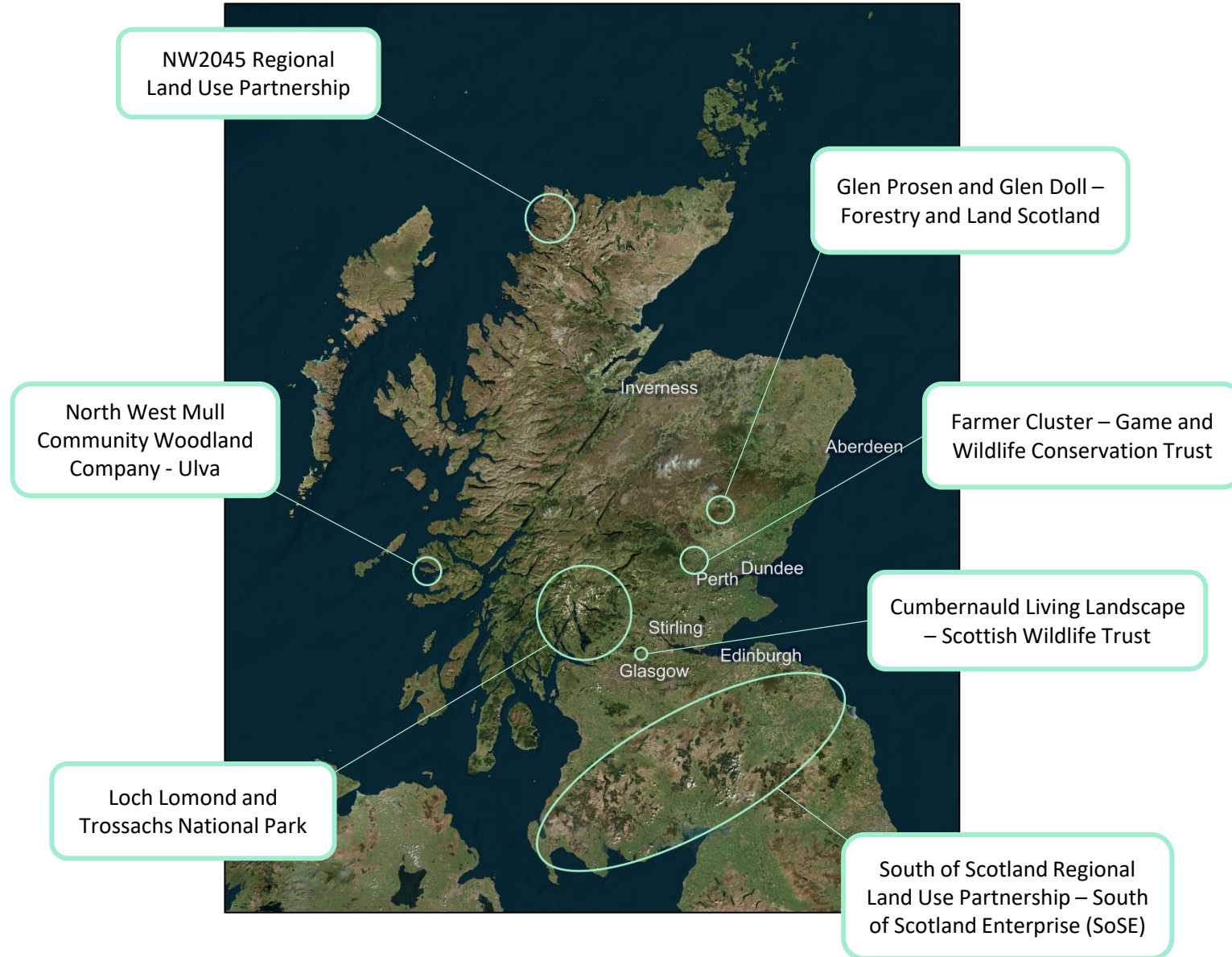
- Support internal decision making to **prioritise actions and resources**
- Apply for **funding** opportunities



Support **collaboration** with neighbouring landowners across the landscape



Facilitate community and other local stakeholder engagement



Thank you for listening

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