



**PROGRESS**

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# NEES Mapping Pilot - National Ecosystem and Ecosystem Services Mapping Pilot for a Suite of Prioritised Services, Ireland

**Dr Owen Douglas**

Project Officer at the Eastern and Midland Regional Assembly (EMRA), Ireland

[odouglas@emra.ie](mailto:odouglas@emra.ie)

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# Summary of the NEES GP

## ‘An empowering tool’

- **Recognises** the value of biodiversity and ES for human wellbeing.
- **Tackles** ‘practical challenges’ in applying the ES concept in policy and environmental management.
- **Demonstrates** a ‘mapping approach’ for ES at the ‘national scale’.

### National Ecosystem and Ecosystem Service Mapping Pilot for a Suite of Prioritised Services



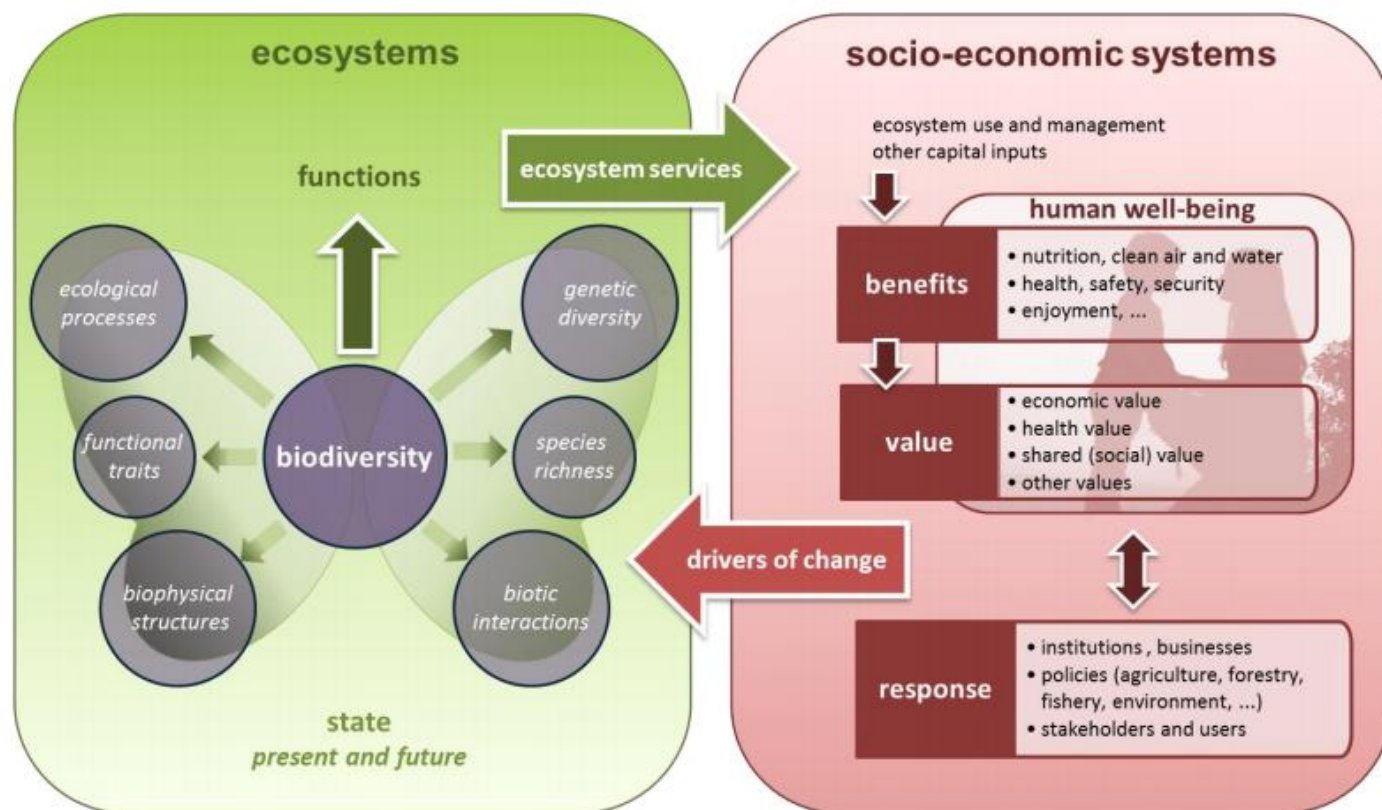
Irish Wildlife Manuals No. 95



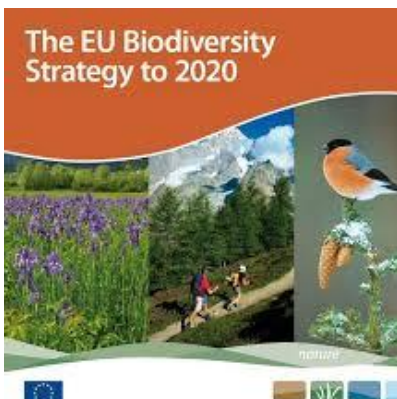
An Roinn Ealaíon, Oidhreachta,  
Gnóthaí Réigiúnacha, Tuaithe agus Gaeltachta  
Department of Arts, Heritage,  
Regional, Rural and Gaeltacht Affairs

# Strategic relevance

- **Established a framework** for a National Ecosystem Assessment for IE within the context of the EU's Biodiversity Strategy to 2020.
- **Assisted implementation** of MAES (Mapping and Assessment of Ecosystems and their Services) in IE.



The EU Biodiversity Strategy to 2020

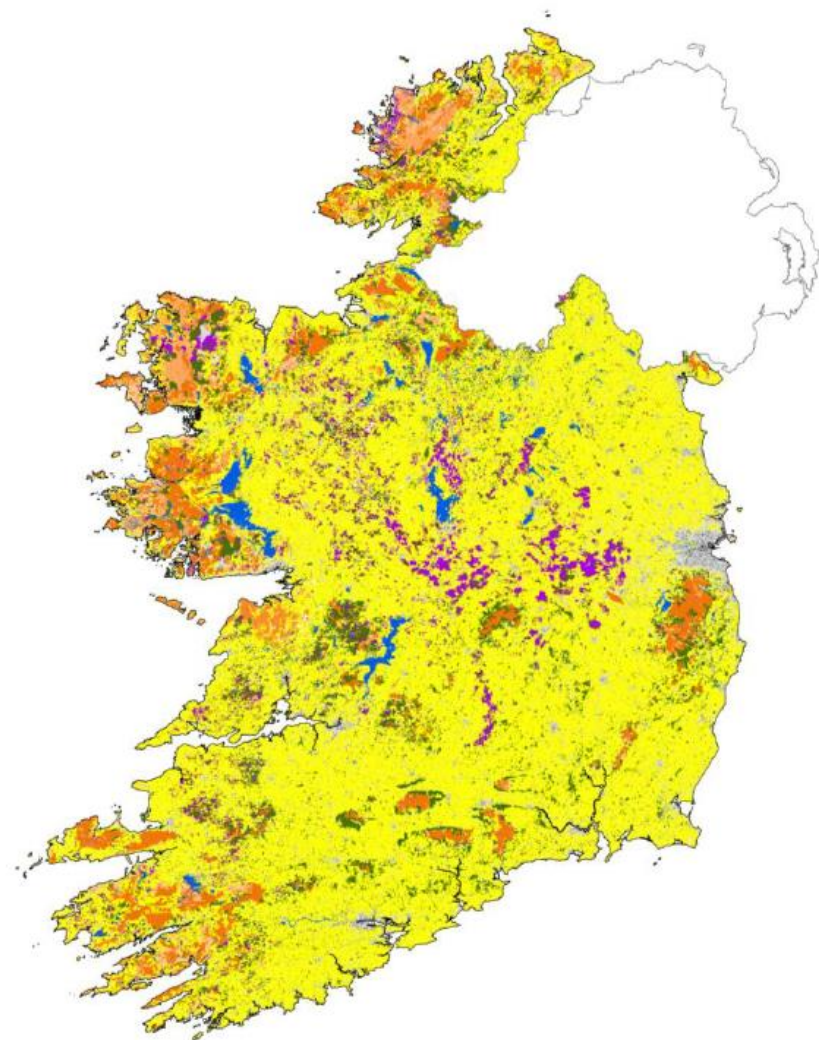


# Tangibility

## The NEES created a “habitat asset register” for IE

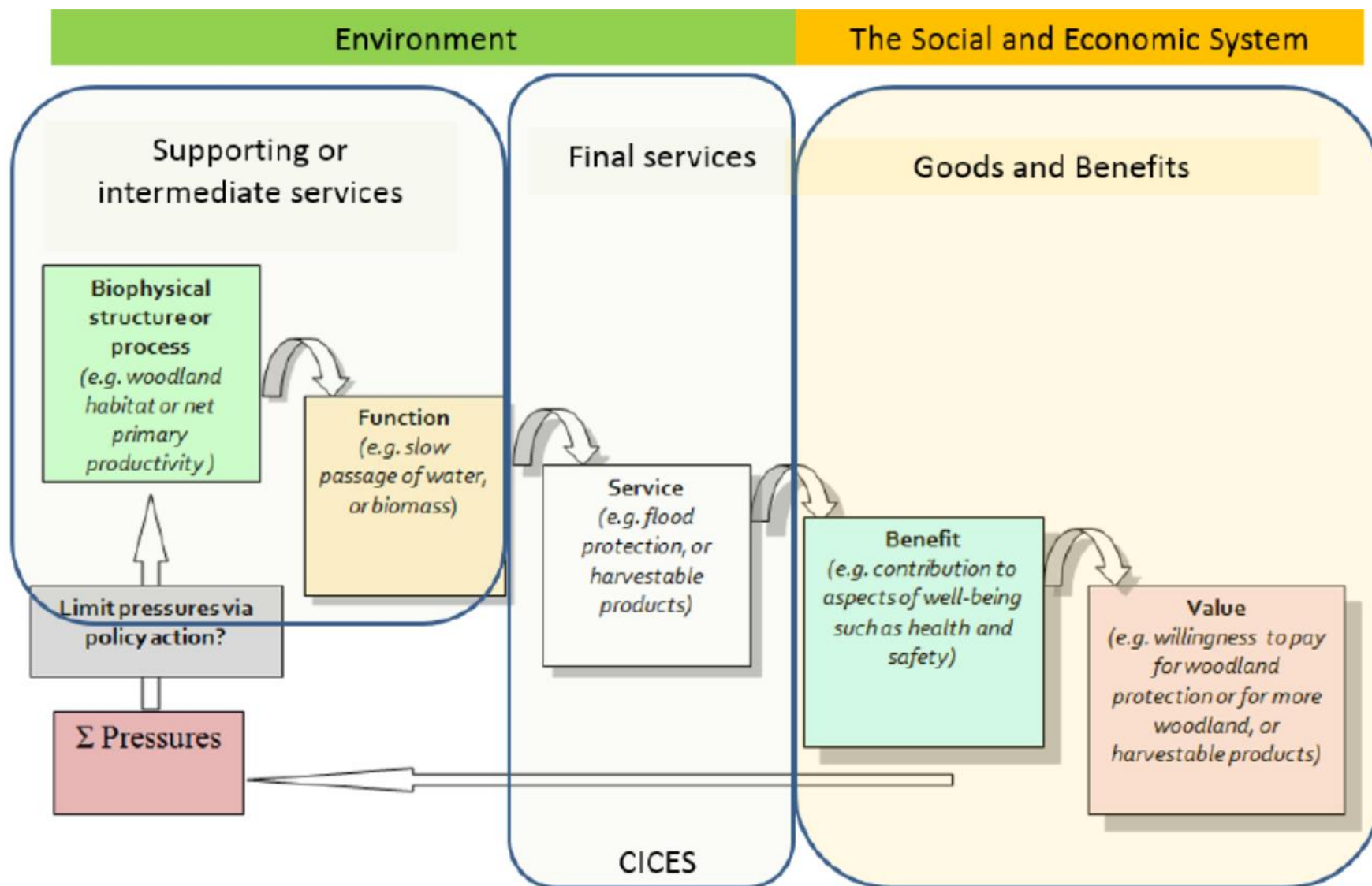
- A **national scale habitat map** conflating all nationally relevant habitat data into one dataset (50m raster grid file/cell size).
- **Additive analysis** of relevant spatial data from 46 datasets to produce a single habitat data layer.
- A **final project report** with full methodology for all resources created and analysis of results is available.

Habitat Asset Register for Ireland - Data sources  
Supporting ecosystem service information

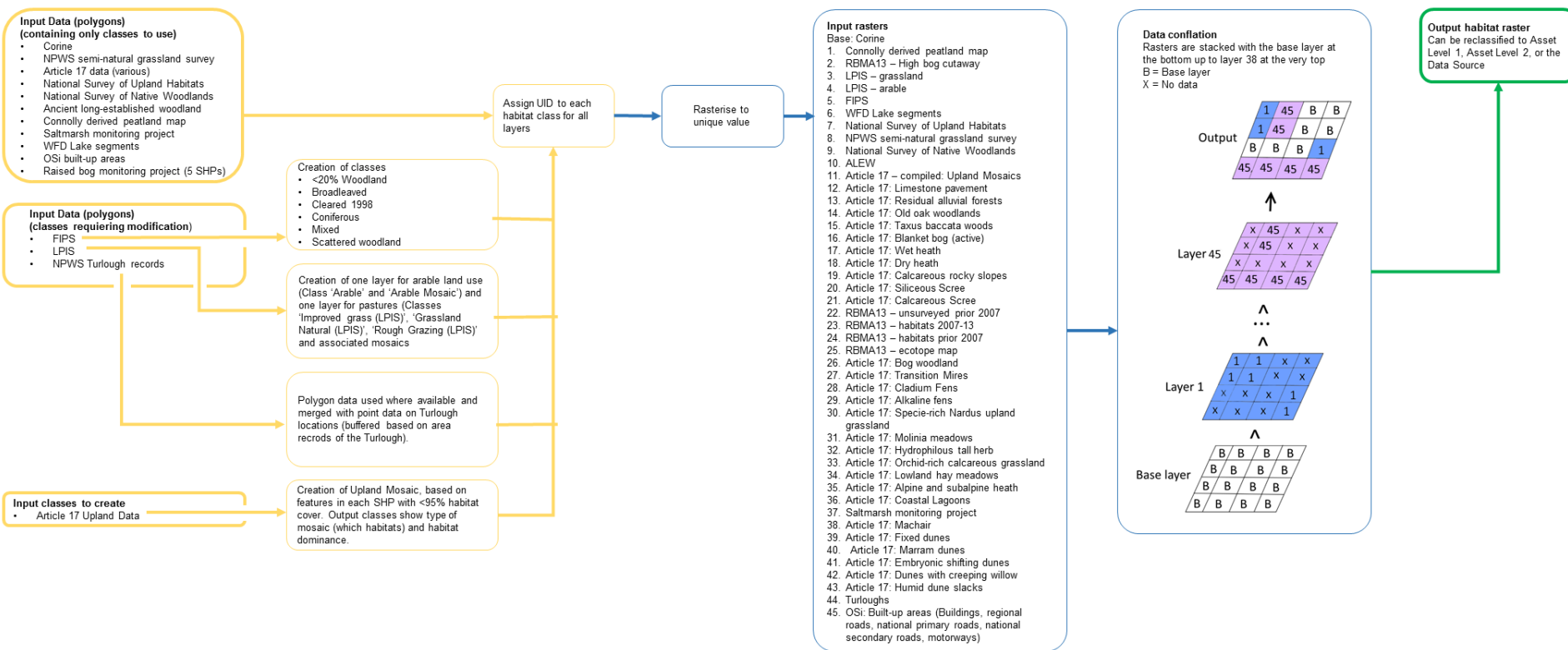




# Durability



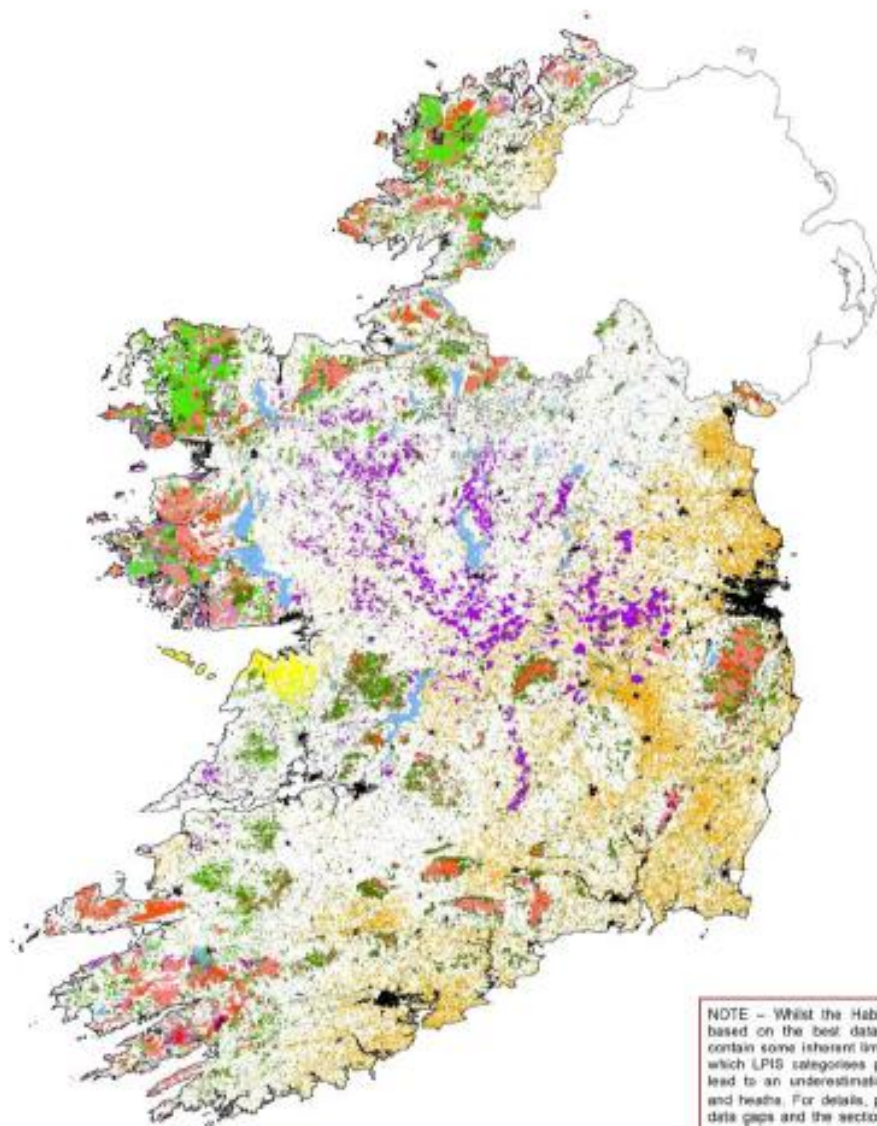
# Creation of the Habitat Asset Register....



# Habitat asset register for Ireland

Habitat Asset Register for Ireland - Level 1  
Supporting ecosystem service information

29/03/2016



## Legend

Alpine heath	Orchard
Amenity grassland	Peat bogs
Arable	Quarry
Bare ground	Raised Bog
Blanket bog	Rocky shore
Broadleaved woodland	Running water
Built environment	Salt meadows
Coastal lagoons	Saltmarsh
Coniferous woodland	Sand dune
Dry heath	Scattered woodland
Estuary	Scrub
Improved grassland	Semi-natural dry grassland
Improved grassland/arable	Semi-natural grassland
Intertidal	Semi-natural wet grassland
Limestone pavement	Standing water
Machair	Turlough
Marsh	Upland mosaic
Mire / Fen	Urban greenspace
Mixed woodland	Vegetated rocky slope
Mosaic: 3+ habitats	Vegetated Scree
Mosaic: Bog/wet heath dominance	Wet heath
Mosaic: Dry/alpine heath dominance	Wet woodland
Mosaic: No dominance	Woodland
Mosaic: Rock dominance	

## How to interpret the map:

This map shows the habitat types across Ireland.

The Habitat Asset Register underpins the analysis of the ecosystem services assessment. This Habitat Asset Register is the most complete picture across Ireland possible to show at this time with existing datasets.

## How the map was created:

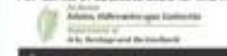
The map has been created by conflating over 40 different habitat datasets in Ireland to get the most complete national scale ecosystem services habitat map possible. Please refer to the project report and resource catalogue for further information.

0 10 20 30 40 50  
Kilometres



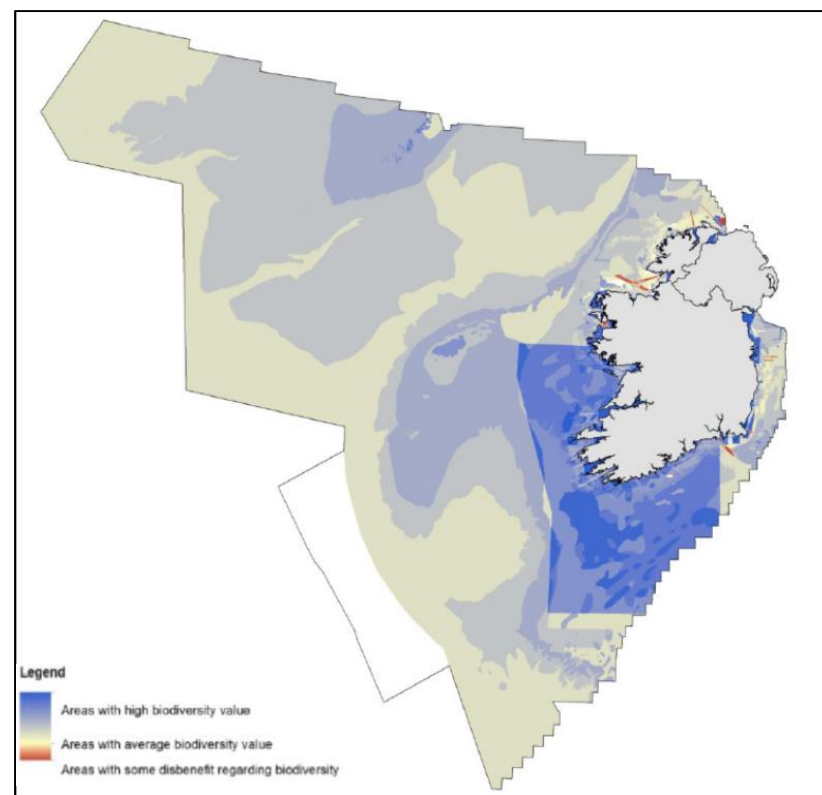
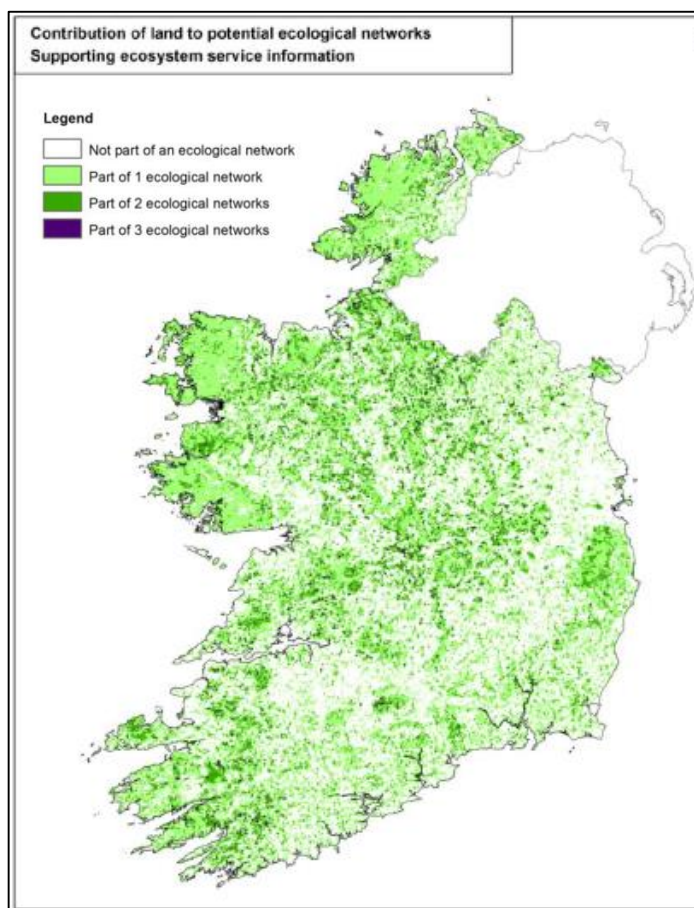
**NOTE** – Whilst the Habitat Asset Register (HAR) is based on the best data currently available, it does contain some inherent limitations due to the manner in which LPI5 categories permanent pasture. This may lead to an underestimation of semi-natural grassland and heaths. For details, please refer to the section on data gaps and the section on the preparation of LPI5

Cartography by Environment Systems Ltd, May 2016.  
Ordnance Survey Ireland Licence No EH 0056216  
© Ordnance Survey Ireland / Government of Ireland (2016)  
Contains data prepared by the Environmental Protection Agency based on Ordnance Survey Ireland information.  
For full list of datasets used for this map, please refer to the final project report.



# Primary Intermediate Layers

Created for some of the datasets which required manipulation in order to be used in the data conflation to create the Habitat Asset Register or as supporting layers for final ES mapping....e.g.:





# Effectiveness, Efficiency, Innovation and Added Value

- **Provided a basis for developing and extending the CICES framework** (sub-classes for Ireland).
- **Stakeholder engagement** enabled the project team to identify which ESs should be prioritised for consideration by the project.
- **Revealed a number of important cross-cutting issues** by bringing together the many different policy areas of interest.
- **Assessment of regional and national policy priorities** helped to identify principal areas of economic activity which could be linked to benefits from ES.

## Funding and Resources

The NEES pilot project cost  
**€106K** incl VAT.

The contracted team were leaders in development of the CICES (Potschin and Haynes-Young)

2 NPWS staff worked on the project on roughly a 50% basis the duration (10 months) plus additional supports involved in steering and review activities

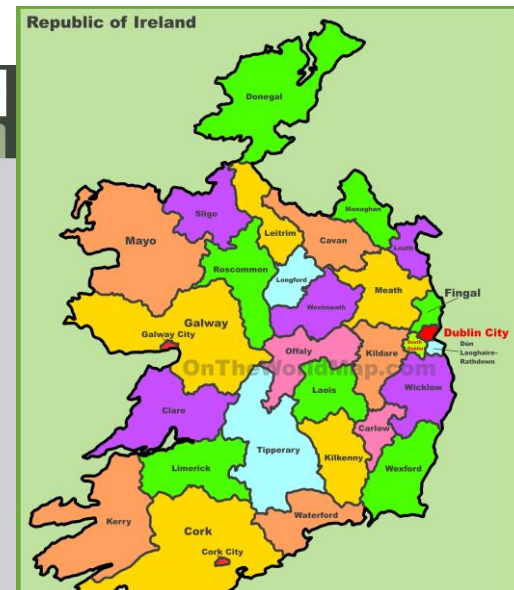
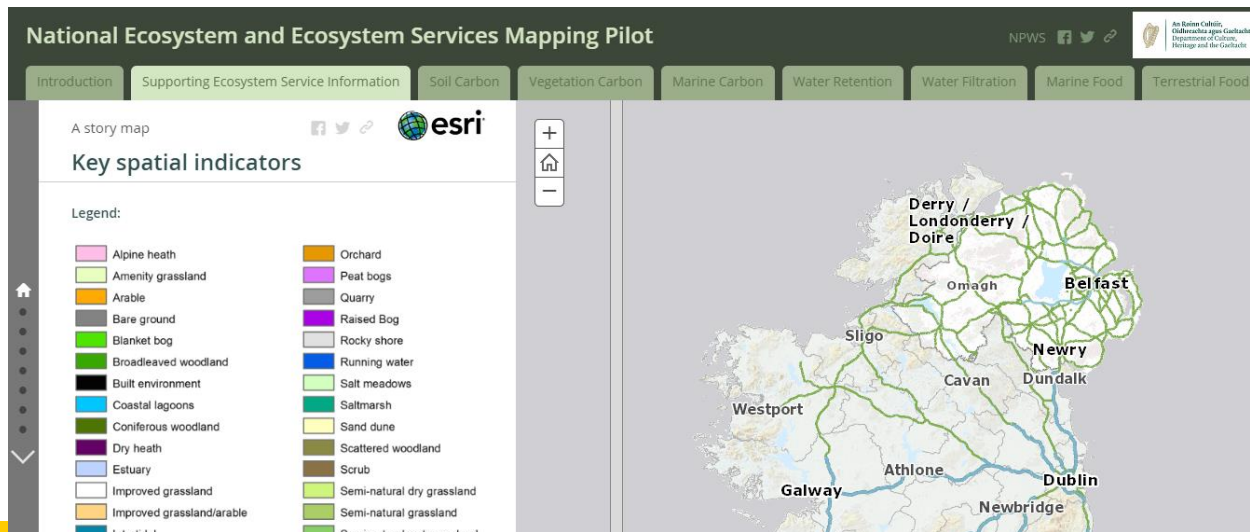
# Visibility

## During the NEES project period

- 3 main opportunities for stakeholder input: **two stakeholder workshops and a review of modelling data and rules** during mapping.

## After the NEES project period

- **Press Release** - Monday, May 8, 2017
- **Report** (as an NPWS Irish Wildlife Manual publication), **supporting documents** are available on the NPWS website
- **Interactive ESRI Story Map viewer:** <https://www.npws.ie/news/national-ecosystem-and-ecosystem-services-mapping-pilot-ireland>
- **Engagement** by NPWS team with local and regional authorities, particularly for developing green infrastructure strategies.



# Evidence of success, externality, intra-regional coordination and extra-regional impact

- In the EMRA region, the Dún Laoghaire-Rathdown local authority is using the NEES as a basis for implementing the ES approach at the **local authority level**: “**Developing a wildlife corridor plan and evaluating their Ecosystem Services (ESS)**”
- At the regional level, EMRA via EP/JRC EnRoute (Enhancing Resilience of Urban Ecosystems through Green Infrastructure) has used the NEES to **demonstrate how ES can contribute to regional development**.
- At the **national level**, the NEES directly informed the **National Biodiversity Action Plan (2017-2021)**.
- In terms of **extra-regional** impact, this national level mapping pilot has been **included on the Biodiversity Information System for Europe (BISE)** – GP for MAES.
- Basis for NPWS joining the **Horizon 2020** Coordinated Action 'ESMERALDA' (Enhancing ecoSystem sERvices mApping for poLicy and Decision mAking) (<http://www.esmeralda-project.eu/>).



← Case studies

How a Green Infrastructure Strategy can inform a Regional Spatial and Economic Strategy for the Dublin City Region of Ireland.



# Quality & potential for learning or transfer

- **Thematic suitability, metadata quality, spatial extent, and resolution were examined and an extensive process of stakeholder consultation took place** in order to identify the most suitable datasets for inclusion in the Habitat Asset Register.
- The project utilised a **rigorous methodology** to map and combine individual elements of ecosystem services, i.e. different data layers, providing a stepped approach to building a representation of the whole or part of a complex ecosystem interaction.
- The methodology was **designed to be transparent and transferable**. **However**, any proposed action on individual sites will need to be assessed at a site level, using available or creating more detailed information appropriate for supporting decisions at that scale – **The NEES was a national pilot (50m raster grid file/cell size) with no statutory footing**.
- These factors make the model highly transferrable between contexts, subject to appropriate input and implementation – **This potential has been evidenced by cooperation and exchange at local, regional national and international levels resulting directly from the NEES.**







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## Thank you!

Questions welcome



*Project smedia*