

Enabling a positive  
impact on the natural  
environment..  
with the help of machine learning



# The Public Sector Geospatial Agreement

Providing the public sector access to our world-leading geospatial data

## OS National Geographic Database



SEE ► BETTER PLACE

National Mapping Agency for Great Britain

# Some of the challenges

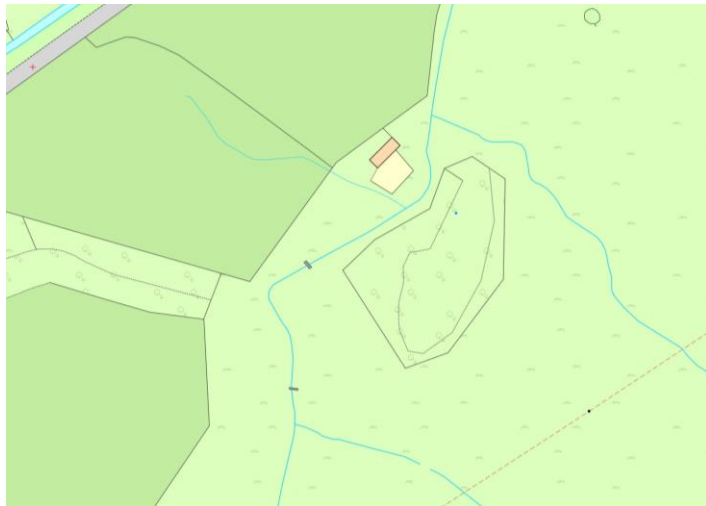


# The natural environment

Land, forestry, freshwater and marine environments, geology and soil

In terms of Ordnance Survey data..

Physical land cover



Field boundary



Water and tidelines



# Why OS?

Spatial data for  
30x30

Authoritative and  
trusted

Customers at  
heart of design

WE USE  
LOCATION DATA  
TO SHINE A LIGHT  
ON THE ENVIRONMENT

Enhanced geospatial  
data

Understanding  
change over time

Easy access and  
easy to use data

# What's changing?

## Primary use cases



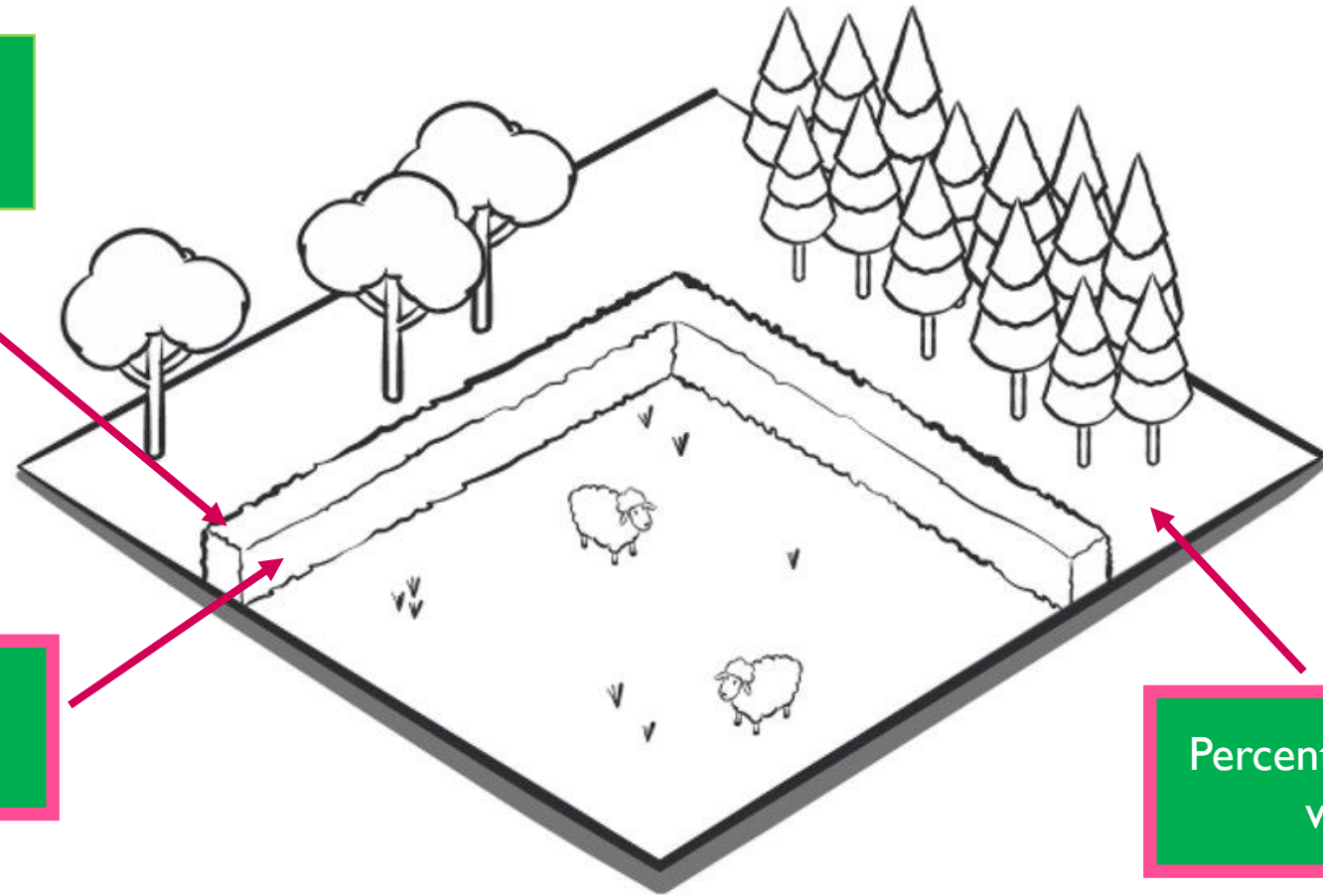
Improved accuracy and consistency

Field boundary height and width

EUNIS and UK BAP Broad Habitats

Field boundary classification

Percentage cover value



Uses ML

# Percentage Cover value

## Feature A

OS Land Cover: Non-Coniferous Trees  
EUNIS Level 1: T Forest and other wooded land  
EUNIS Level 2: T1 Deciduous broadleaved forest  
UKBAPBroad: Broadleaved, Mixed and Yew woodland  
Percentage: **Non-Coniferous Trees:100**

## Feature B

OS Land Cover: Heath, Rough Grassland, Scrub  
EUNIS Level 1: S Heathland, scrub and tundra  
EUNIS Level 1: R Grasslands and lands dominated by forbs, mosses or lichens  
EUNIS Level 2: null  
UKBAPBroad: Dwarf Shrub Heath  
Percentage: **Heath:70|RoughGrassland:20|Scrub:10**



# Field Boundary classification

## Feature A

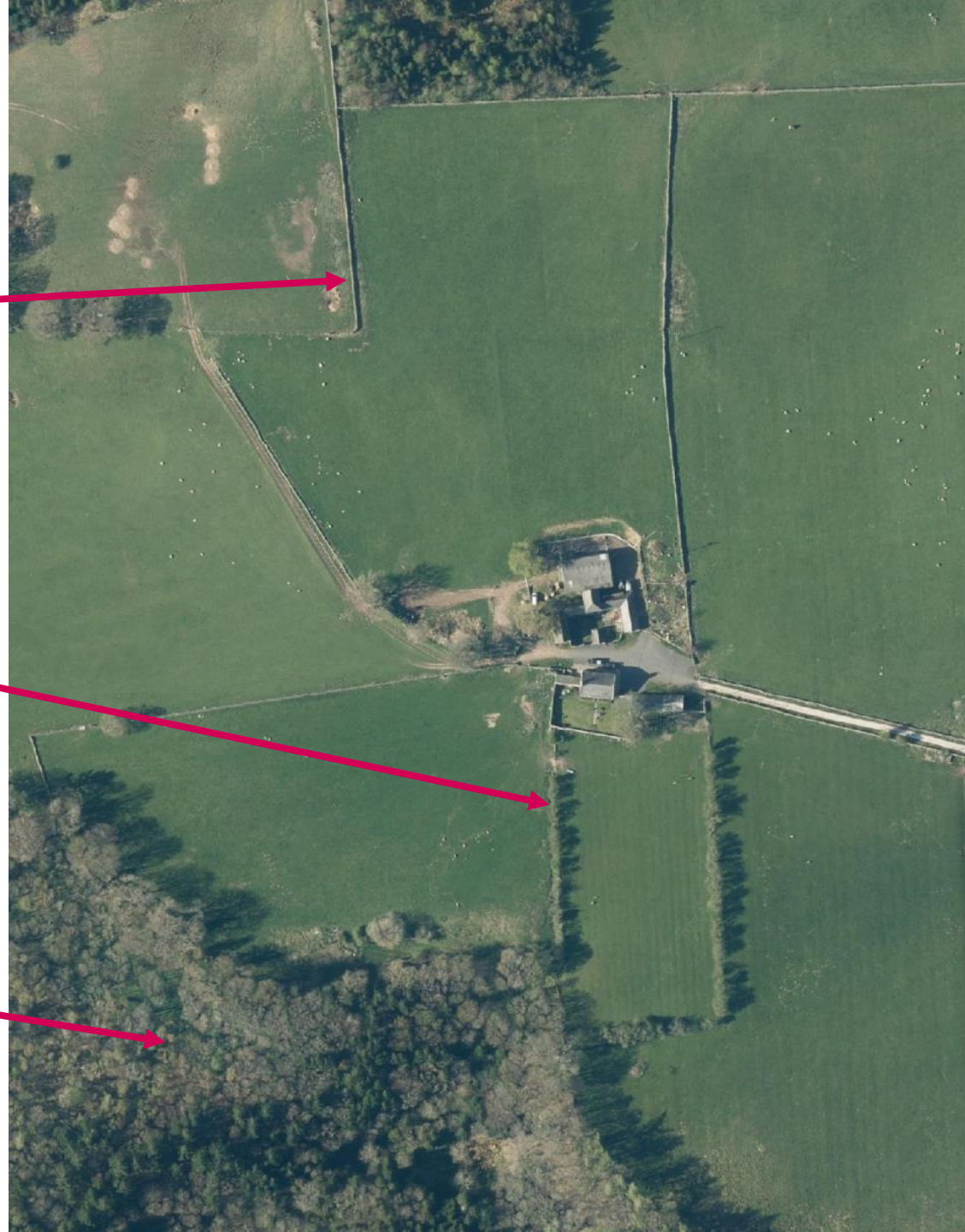
OS Classification: **wall**  
No height or width value

## Feature B

OS Classification: **Hedge**  
Average Height: 2.0m  
Average width: 2.0m  
Minimum Height: 1.0m  
Minimum width: 1.0m  
Maximum Height: 3.0m  
Maximum width: 3.0m

## Feature C

OS Classification: **wooded Strip**  
Average Height: 20.0m  
Average width: 20.0m  
Minimum Height: 10.0m  
Minimum width: 10.0m  
Maximum Height: 30.0m  
Maximum width: 30.0m





# What's next?

Supporting Net Zero

New propositions and innovation

Future data enhancements

Continuous ML enhancements

Ongoing customer engagement

Collaboration and partnerships

MORE SUSTAINABLE

OUR LAND

TO HELP MAKE



# QUESTIONS?

[nicky.southam@os.uk](mailto:nicky.southam@os.uk)

[futuregeo@os.uk](mailto:futuregeo@os.uk)