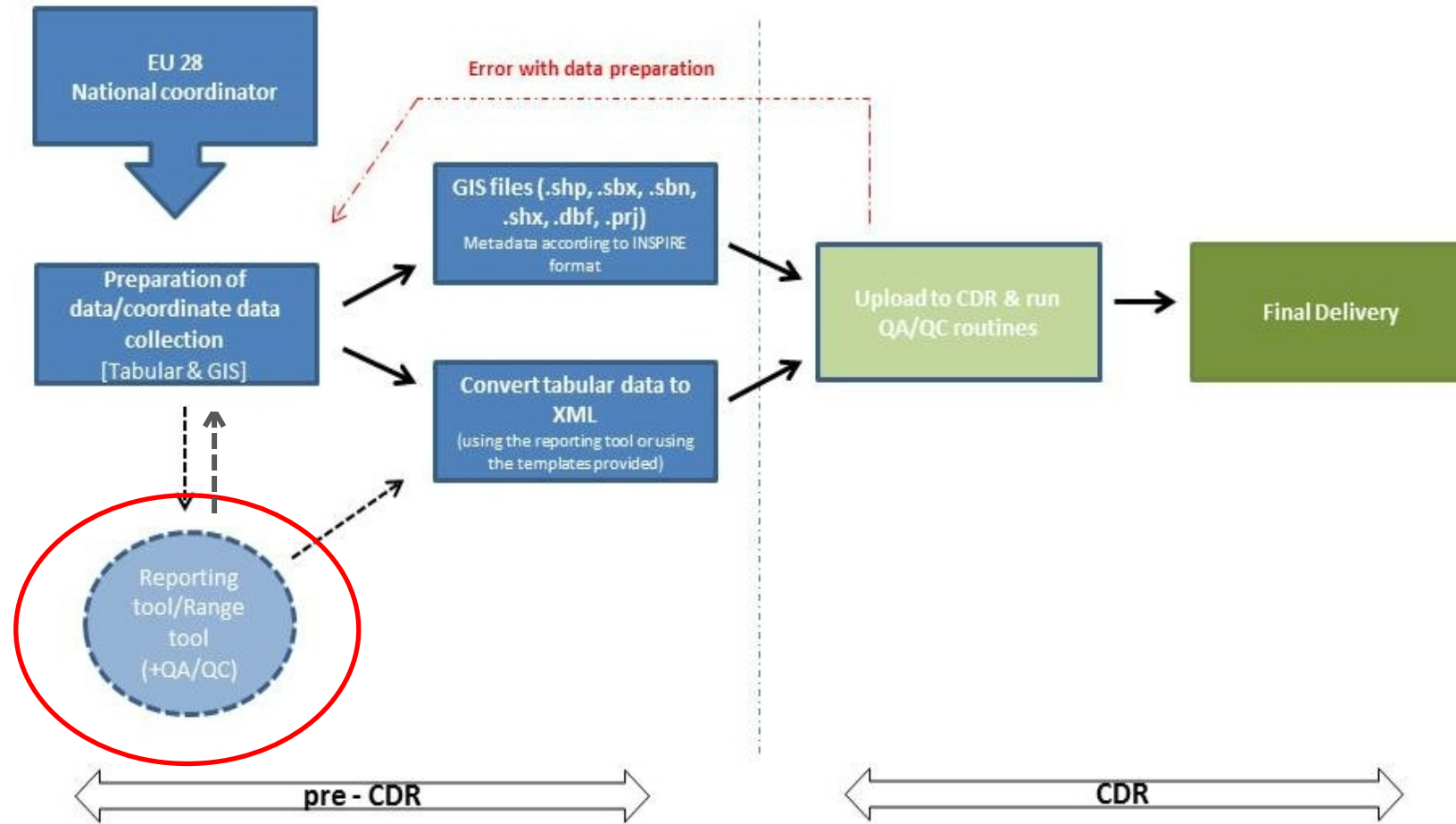


# Introduction to the range tool



# Generalised data flow



# Range – a parameter of the assessment of conservation

- Range is one of the four parameters used to assess the conservation status
- Range is defined as ‘the outer limits of the overall area in which a habitat or species is found at present’; it can be considered as an **envelope around the distribution**
- The range should be calculated based on the map of the actual distribution using a standardised algorithm

Parameters for the conservation status assessment of species	Parameters for the conservation status assessment of habitat types
Range	Range
Population	Area
Habitat for the species	Structure and functions
Future prospects	Future prospects

Source: Art17 report guidelines, page 8

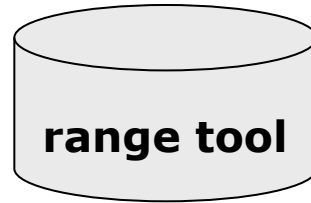
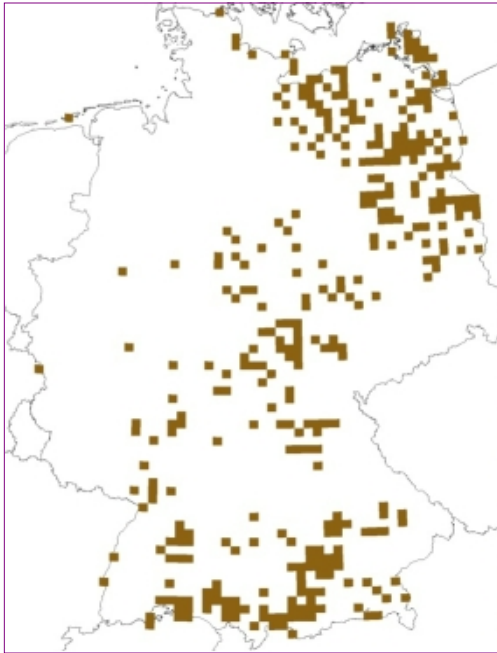
- Range is not a way to show ecologically meaningful spatial representation of a distribution. It is a means to identify large scale changes.



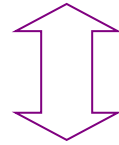
# From distribution to range

## Distribution data

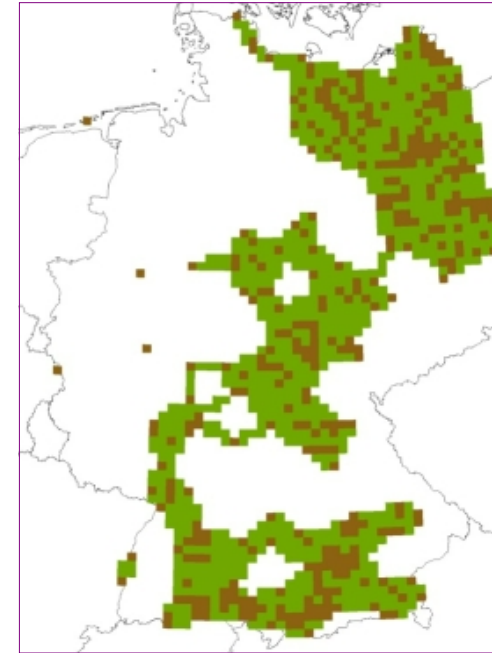
(presence/absence in the 10x10km ETRS grid)



**RANGE** – an envelope around the distribution (IUCN Red List concept)

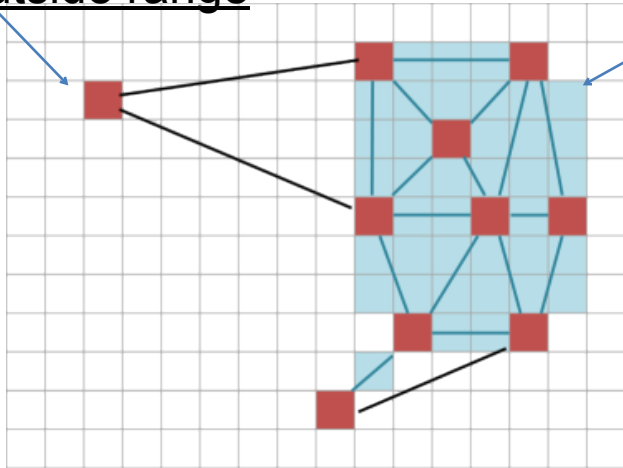


standardized,  
repeatable procedure



# How range is calculated

Outside range



Inside range

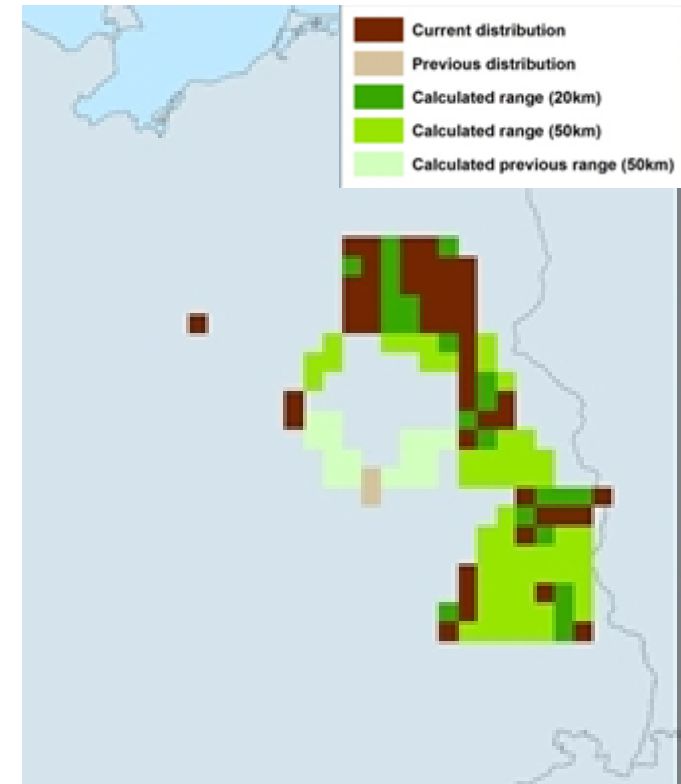
Distance between grids where species occurs is smaller than the chosen gap distance

Recommended maximum gap distance

Species group	Gap distance
Lower plants	40 km
Higher plants	40 km
Invertebrates	40 km
Fish and lampreys	50 km
Terrestrial mammals	40–90 km, depending on dispersal ability and movement
Amphibians	50 km
Terrestrial reptiles	50 km
Marine mammals and reptiles	90 km
Relatively localised habitat types	40 km
Wide spread habitat types	50 km

Source: Art17 Guidelines

Example: range calculated with different gap distances



Range must be calculated with relatively big gap distances in order to allow for identification of large scale changes

European Environment Agency  
European Topic Centre on  
Biological Diversity

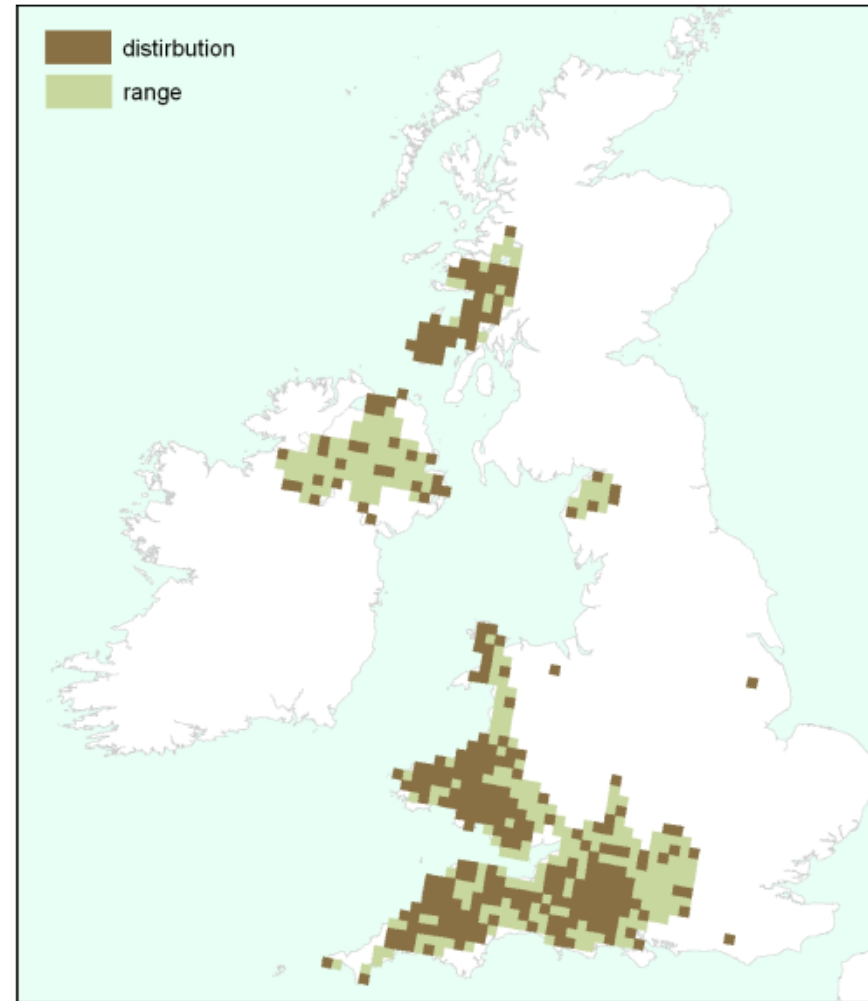
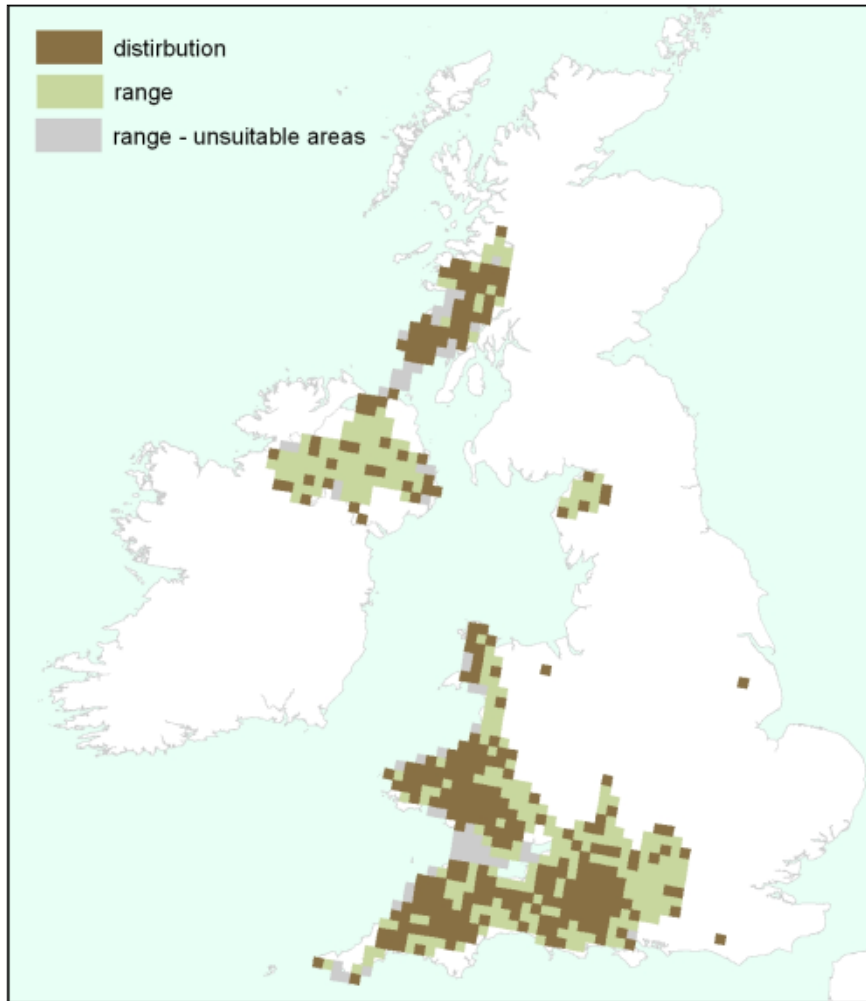


# Excluding unsuitable areas

- The following types of unsuitable areas should be excluded from the calculated range:
  - marine areas automatically included in the range of terrestrial species;
  - terrestrial areas automatically included in the range of marine species;
  - areas beyond national boundaries;
  - areas identified by the range tool as part of the range falling in the adjacent biogeographical or marine regions for which the species is not noted on the checklist;
  - areas without water bodies for freshwater species and vice versa.
  - areas more than 20 km from coastline for coastal habitats;
  - areas without water bodies for freshwater habitats and vice versa.

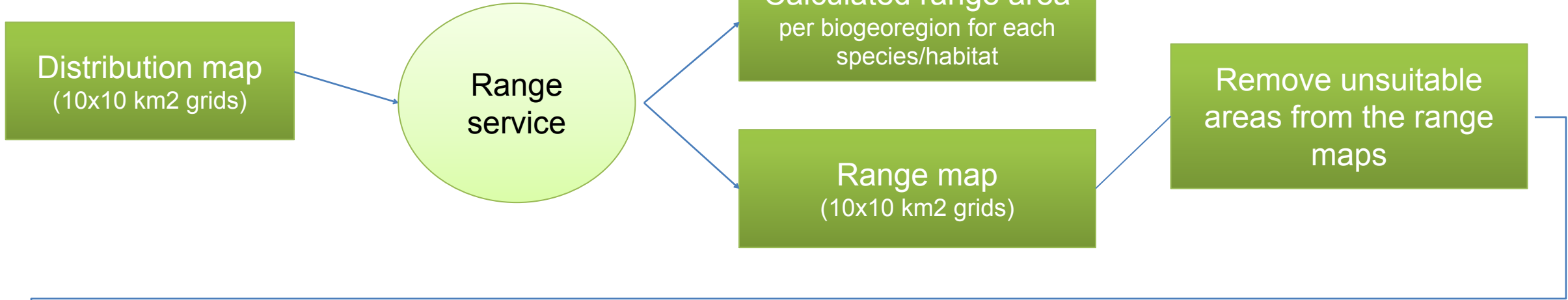


# Example: removal of unsuitable areas from range



# Workflow for range parameters in report

Input



Output

