

# VES IETEKMES UZ PUTNIEM VĒRTĒŠANA - LABĀS PRAKSES PIEMĒRI UN PROBLEMĀTIKA EKSPERTA- ORNITOLOGA SKATĪJUMĀ

ROLANDS LEBUSS, CERTIFICĒTS PUTNU EKSPERTS

Projekta LIFE FOR SPECIES seminārs «Ietekmes uz putniem vērtēšana ekspertu atzinumos»  
Sigulda, 2022. gada 22. septembrī

THE LEADING WIND-POWER PRODUCERS IN 2016 WERE GERMANY WITH 28,000 ONSHORE WIND TURBINES AND GENERATION CAPACITY OF 56,132 MW; SPAIN WITH 23,170 MW; THE UK WITH 18,872 MW; ITALY WITH 17,455 MW AND FRANCE WITH 13,759 MW. THE LOCATION AND DENSITY OF ON AND OFFSHORE WIND FARMS AND PARKS ACROSS EUROPE ARE DEPICTED IN FIGURE 1

NEWMAN N.A. 2018. WIND-POWER IN EUROPE. TECHNICAL REPORT. OCTOBER 2018. DOI: 10.13140/RG.2.2.29979.52003 OXFORDPROSPECT, UNITED KINGDOM, OXFORD.

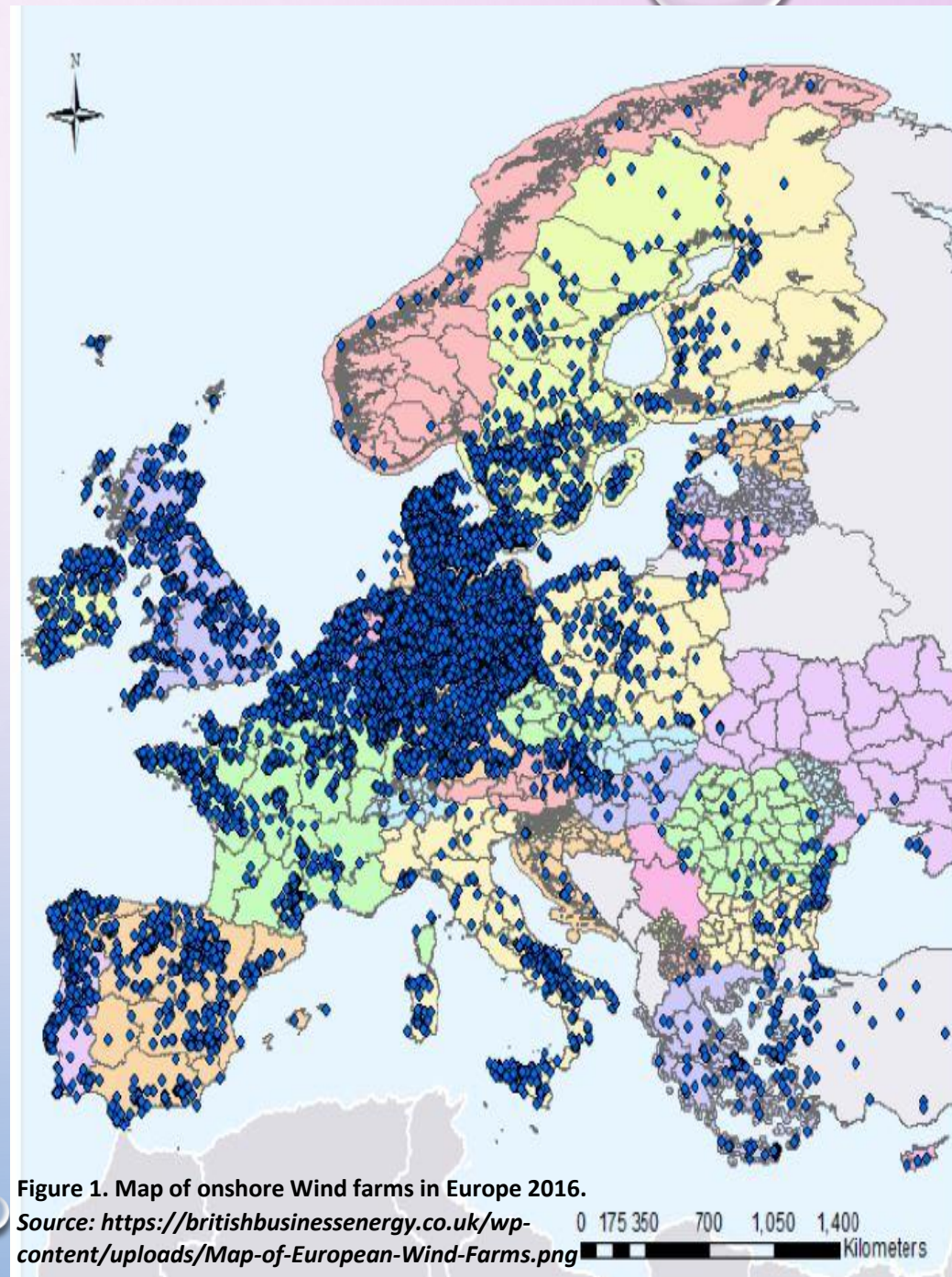


Figure 1. Map of onshore Wind farms in Europe 2016.

Source: <https://britishbusinessenergy.co.uk/wp-content/uploads/Map-of-European-Wind-Farms.png>

# VĒJA ENERĢĒTIKA LATVIJĀ: ORNITOLOGU IESAISTE PROJEKTU IZVĒRTĒJUMOS

- KOPŠ 1998. GADA IR UZBŪVĒTAS AP 300 VĒJA ELEKTROSTACIJAS (VES).
- DAĻA NO TĀM VAIRS NEDARBOJAS, DAĻA DRĪZ BEIGS DARBĪBU.
- LIELĀKĀ DAĻA NO TĀM IR NELIELAS, AR MASTA AUGSTUMU AP 30 M.
- ŠAI SKAITĀ NAV IERĒĶINĀTAS MAZĀS VES, KURĀM KOPĒJAIS AUGSTUMS IR MAZĀKS PAR 20 M.
- PIRMOS PROJEKTUS VĒRTĒJA BIOLOĢIJAS INSTITŪTA ORNITOLOĢIJAS LABORATORIJAS ORNITOLOGI.
- KOPŠ 1998. GADA ŠAI DARBĀ IESAISTĪJĀS ARĪ LATVIJAS ORNITOLOĢIJAS BIEDRĪBAS ORNITOLOGI.
- PAŠLAIK VĒJA PARKU IZVĒRTĒJUMOS STRĀDĀ SERTIFICĒTI PUTNU EKSPERTI.

# VĚJA PARKI UN PUTNI – ĻOTI ĪSUMĀ

RESEARCH AND ENVIRONMENTAL PLANNING FIRM BIOCONSULT SH LED THE PROGRESS PROJECT IN COOPERATION WITH ARSU, IFAÖ, AND BIELEFELD UNIVERSITY. THE AIM WAS TO DETERMINE COLLISION RATES FOR BIRDS (OF PREY) AND CREATE PLANNING-RELATED FOUNDATIONS FOR FORECASTING AND ANALYZING THE RISK OF COLLISION WITH WIND TURBINES. THIS STUDY WAS THE FIRST TO QUANTITATIVELY DETERMINE BIRDS' COLLISION RATES WITH TURBINES.

## THE MAJOR FINDINGS INCLUDE:

- MOST COLLISIONS INVOLVE THE COMMON, NON-ENDANGERED SPECIES FREQUENTLY SEEN IN AGRICULTURAL AREAS, SOME OF WHICH ARE EVEN HUNTED. IT WAS ALSO FOUND THAT THE CENTRAL DATABASE COMPILED BY THE VOGELSCHUTZWARTE (BIRD CONSERVATION STATION) IN BRANDENBURG, WHICH IS BASED ON CORPSES FOUND BY CHANCE, HAS LED TO FALSE CONCLUSIONS BECAUSE OF A HIGHER SHARE OF MORE NOTICEABLE AND THEREFORE MORE EASILY FOUND SPECIES. BIRDS OF PREY DO NOT DOMINATE THE PROJECT'S COLLISION DATA.
- IT ALSO BECAME CLEAR THAT THE NUMBERS OF CARCASSES POTENTIALLY CARRIED ELSEWHERE BY OTHER ANIMALS ARE MUCH LOWER THAN PREVIOUSLY THOUGHT; THE EXTRAPOLATION FACTOR IS THEREFORE QUITE LOW.
- THE TENDENCY OF GEESE AND CRANES TO DETOUR AROUND WIND FARMS WAS CONFIRMED. THE MILLIONS OF SONGBIRDS THAT TEND TO MOVE ABOUT AT NIGHT ALSO VERY RARELY COLLIDE WITH TURBINES.

SCHAFFUNG PLANUNGSBEZOGENER GRUNDLAGEN FÜR DIE PROGNOSE UND BEWERTUNG DES KOLLISIONSRISIKOS DURCH WINDENERGIEANLAGEN (PROGRESS). SCHLUSSBERICHT ZUM DURCH DAS BUNDESMINISTERIUM FÜR WIRTSCHAFT UND ENERGIE (BMWI) IM RAHMEN DES 6. ENERGIEFORSCHUNGSPROGRAMMES DER BUNDESREGIERUNG GEFÖRDERTEN VERBUNDVORHABEN PROGRESS, FKZ 0325300A-D. [HTTP://BIOCONSULT-SH.DE/DE/NACHRICHTEN-ARCHIV/PROGRESS-ENDBERICHT-VEROFFENTLICHT](http://bioconsult-sh.de/de/nachrichten-archiv/progress-endbericht-veroeffentlicht) PĚC WIND POWER AND NATURE CONSERVATION. BACKGROUND PAPER. SEPTEMBER 2016. [WWW.WIND-ENERGIE.DE](http://www.wind-energie.de)

# KAS TRAUCĒ IEVIEST LABO PRAKSI?

1. JOPROJĀM TRŪKST PĒTĪJUMU PAR ATSEVIŠĶĀM PUTNU SUGĀM VAI ARĪ TIE IR NEIZMANTOJAMI LATVIJAS APSTĀKĻOS ATTIECĪBĀ UZ:

A) MIJIEDARBĪBU AR VĒJA PARKIEM – IZVAIRĪŠANĀS, SADURSMES, MIRSTĪBA UTT. VAI TIEŠI PRETĒJI;

B) ATSEVIŠĶU SUGU BIOLOĢIJU – LIGZDOŠANAS UN BAROŠANĀS TERITORIJU LIELUMI, LIDOŠANAS ATTĀLUMI; LIDOJUMU AUGSTUMI, TO SADALĪJUMS LAIKĀ UN TELPĀ;

C) ATSEVIŠĶU PUTNU SUGU MAŅĀM, ĪPAŠI DZIRDI.

# KAMĒR NAV NACIONĀLO VADLĪNIJU ...

WORKING GROUP OF GERMAN STATE BIRD CONSERVANCIES (LÄNDERARBEITSGEMEINSCHAFT DER VOGELSCHUTZWARTEN LAG VSW) RECOMMENDATIONS FOR DISTANCES OF WIND TURBINES TO IMPORTANT AREAS FOR BIRDS AS WELL AS BREEDING SITES OF SELECTED BIRD SPECIES (AS AT APRIL 2015)  
LÄNDERARBEITSGEMEINSCHAFT DER VOGELSCHUTZWARTEN (LAG VSW) (2014): RECOMMENDATIONS FOR DISTANCES OF WIND TURBINES TO IMPORTANT AREAS FOR BIRDS AS WELL AS BREEDING SITES OF SELECTED BIRD SPECIES. BER. VOGELSCHUTZ 51: 15–42.)

OVERVIEW OF RECOMMENDED DISTANCES OF WIND TURBINES TO IMPORTANT AREAS FOR BIRDS: MINIMUM DISTANCES AND, IN BRACKETS, RANGES OF VERIFICATION AROUND WIND FARMS (BIRD HABITATS RECOMMENDED MINIMUM DISTANCE OF WIND TURBINE (RANGE OF VERIFICATION IN BRACKETS):

- SPECIAL PROTECTION AREAS (SPA) UNDER THE EU BIRDS DIRECTIVE, WITH SPECIES SENSITIVE TO WIND TURBINES IN PROTECTIVE PURPOSE – 10 TIMES THE TURBINE HEIGHT, AT LEAST 1,200 M;
- ALL TYPES OF PROTECTION AREAS UNDER NATIONAL LAW WITH SPECIES SENSITIVE TO WIND TURBINES IN PROTECTIVE PURPOSE OR IN CONSERVATION OBJECTIVES – 10 TIMES THE TURBINE HEIGHT, AT LEAST 1,200 M;
- WETLANDS OF INTERNATIONAL IMPORTANCE LISTED UNDER THE RAMSAR CONVENTION WITH WATER BIRDS AS ESSENTIAL SUBJECTS OF PROTECTION 10 TIMES THE TURBINE HEIGHT, AT LEAST 1,200 M;
- HABITATS OF VISITING BIRDS OF INTERNATIONAL, NATIONAL AND REGIONAL IMPORTANCE (RESTING AND FEEDING SITES; E.G. OF CRANES, SWANS, GEESE, LAPWINGS, EUROPEAN GOLDEN PLOVER AND EURASIAN DOTTEREL, AS WELL AS OTHER WADERS AND WATERFOWL) 10 TIMES THE TURBINE HEIGHT, AT LEAST 1,200 M;
- REGULARLY FREQUENTED ROOSTING SITES: CRANES, SWANS, GEESE (EXCEPT INVASIVE BIRD SPECIES), ALL STARTING WITH THE 1 % CRITERION ACCORDING TO WAHL & HEINICKE (2013); FURTHERMORE RAPTORS/FALCONS AND SHORT-EARED OWL CRANE: 3,000 M (6,000 M) SWANS, GEESE (EXCEPT INVASIVE SPECIES): 1,000 M (3,000 M); RAPTORS/FALCONS\* & SHORT-EARED OWL: 1,000 M (3,000 M);
- MAIN FLIGHT PATHS BETWEEN ROOSTS AND FEEDING AREAS OF CRANES, SWANS, GEESE (EXCEPT INVASIVE SPECIES) AND RAPTORS – KEEP FREE;
- IMPORTANT NATIONAL FLYWAYS WITH HIGH CONCENTRATIONS OF MIGRATORY BIRDS – KEEP FREE;
- WATERS AND INTERCONNECTED WATER BODIES >10 HA THAT ARE AT LEAST OF REGIONAL IMPORTANCE FOR BREEDING OR RESTING WATER BIRDS – 10 TIMES THE TURBINE HEIGHT, AT LEAST 1,200 M.

**Table 2:**

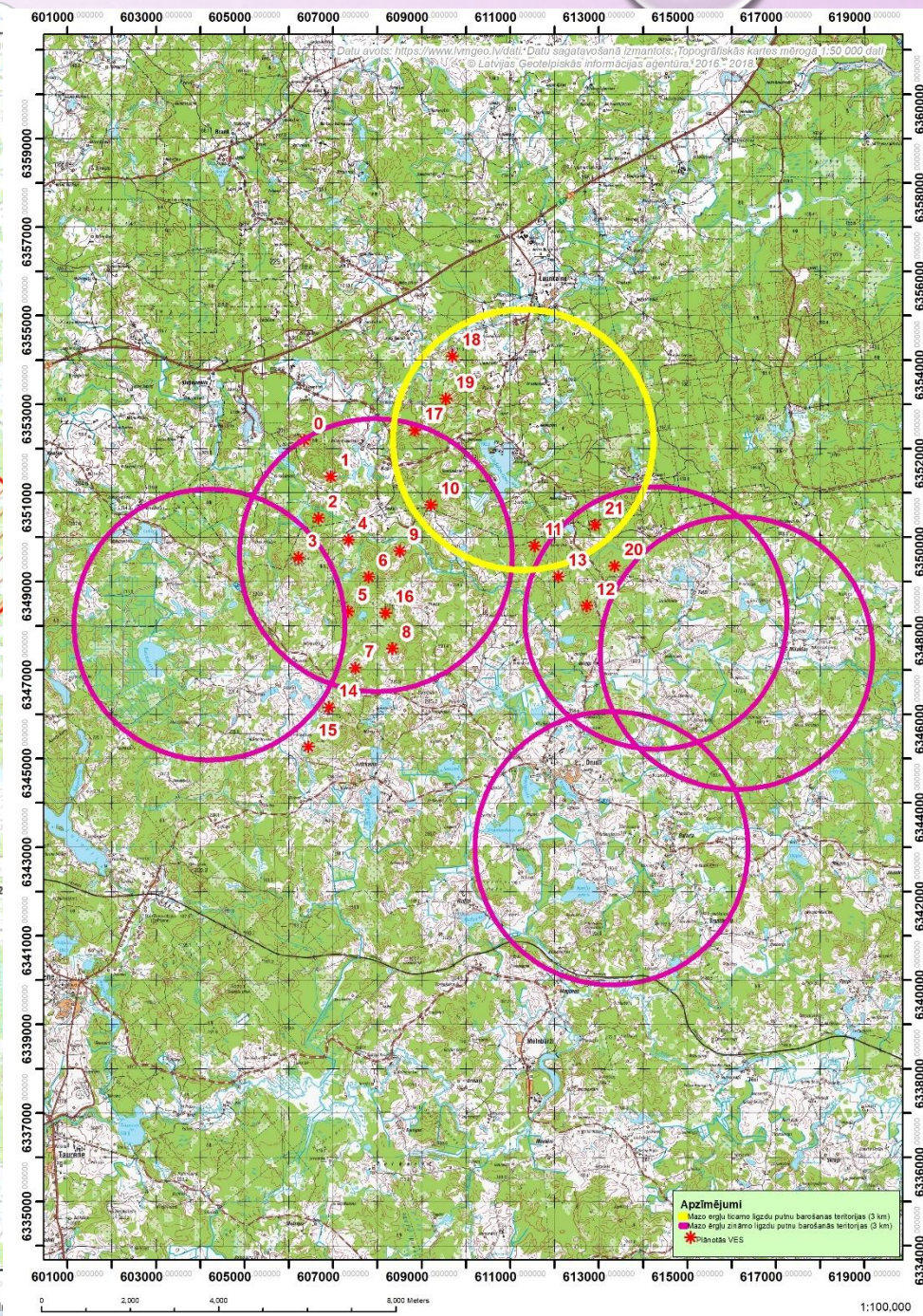
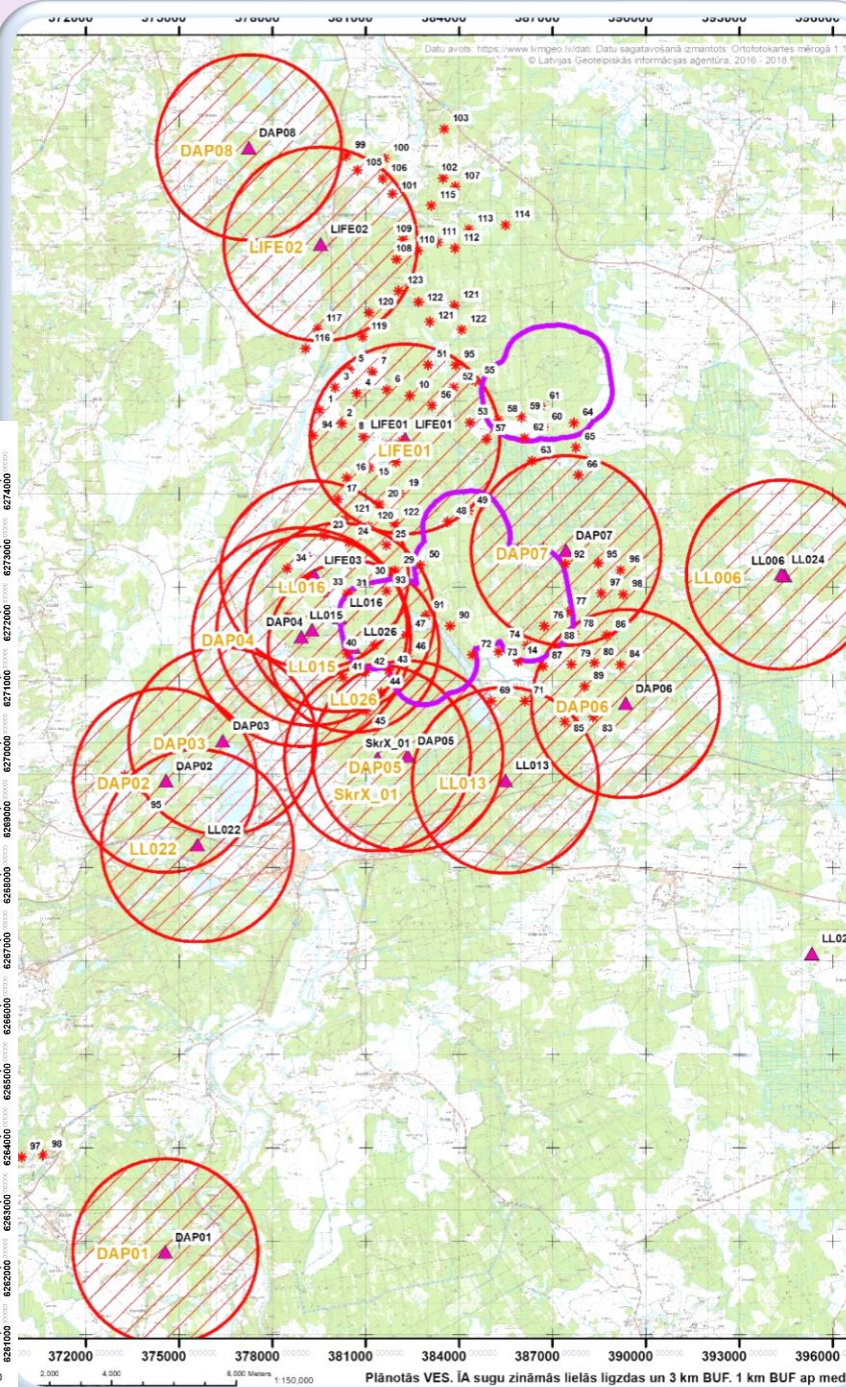
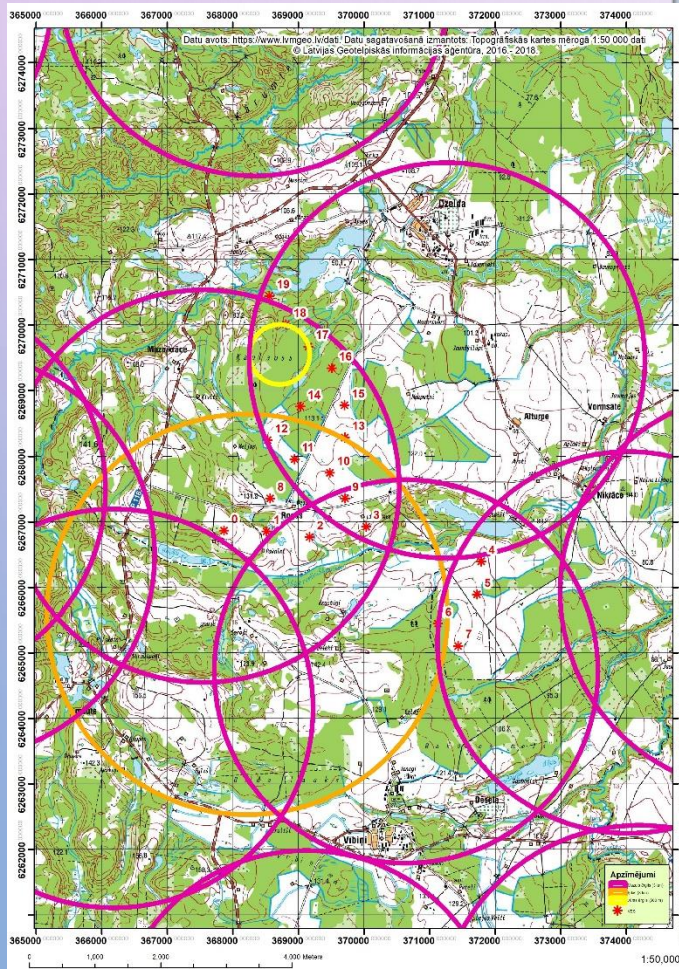
Overview of recommended minimum distances of wind turbines to breeding sites of bird species sensitive to wind turbines. In brackets recommended ranges of verification around wind farms for frequently used feeding sites, roosts or other significant habitats.

species, group of species	Minimum distance of wind turbine (range of verification in brackets)
Grouse: Capercaillie ( <i>Tetrao urogallus</i> ), Black Grouse ( <i>Tetrao tetrix</i> ), Hazel Grouse ( <i>Tetrastes bonasia</i> ), Rock Ptarmigan ( <i>Lagopus muta</i> )	1,000 m around areas of occurrence; keeping corridors between adjacent areas of occurrence
Eurasian Bittern ( <i>Botaurus stellaris</i> )	1,000 m (3,000 m)
Little Bittern ( <i>Ixobrychus minutus</i> )	1,000 m
Black Stork ( <i>Ciconia nigra</i> )	3,000 m (10,000 m)
White Stork ( <i>Ciconia ciconia</i> )	1,000 m (2,000 m)
Osprey ( <i>Pandion haliaetus</i> )	1,000 m (4,000 m)
Honey Buzzard ( <i>Pernis apivorus</i> )	1,000 m
Golden Eagle ( <i>Aquila chrysaetos</i> )	3,000 m (6,000 m)
Lesser Spotted Eagle ( <i>Aquila pomarina</i> )	6,000 m
Hen Harrier ( <i>Circus cyaneus</i> )	1,000 m (3,000 m)
Montagu's Harrier ( <i>Circus pygargus</i> )	1,000 m (3,000 m); areas with high densities should be taken into account regardless the position of the current breeding sites.
Western Marsh Harrier ( <i>Circus aeruginosus</i> )	1,000 m
Red Kite ( <i>Milvus milvus</i> )	1,500 m (4,000 m)
Black Kite ( <i>Milvus migrans</i> )	1,000 m (3,000 m)
White-tailed Eagle ( <i>Haliaeetus albicilla</i> )	3,000 m (6,000 m)
Eurasian Hobby ( <i>Falco subbuteo</i> )	500 m (3,000 m)
Peregrine Falcon ( <i>Falco peregrinus</i> )	1,000 m, breeding pairs of tree-nesting population 3,000 m
Common Crane ( <i>Grus grus</i> )	500 m
Corncrake ( <i>Crex crex</i> )	500 m around regular breeding occurrence. Areas with high densities should be taken into account regardless the position of the current breeding sites.
Great Bustard ( <i>Otis tarda</i> )	3,000 m around breeding sites; winter roosts; keep free all corridors between the areas of occurrence
European Golden Plover ( <i>Pluvialis apricaria</i> )	1,000 m (6,000 m)
Eurasian Woodcock ( <i>Scolopax rusticola</i> )	500 m around mating areas; areas with high densities should be taken into account regardless the position of the current breeding sites.
Eurasian Eagle-Owl ( <i>Bubo bubo</i> )	1,000 m (3,000 m)
Short-eared Owl ( <i>Asio flammeus</i> )	1,000 m (3,000 m)
European Nightjar ( <i>Caprimulgus europaeus</i> )	500 m around regular breeding occurrence
Eurasian Hoopoe ( <i>Upupa epops</i> )	1,000 m (1,500 m) around regular breeding occurrence
Threatened species, sensitive to disturbance: Common Snipe ( <i>Gallinago gallinago</i> ), Black-tailed Godwit ( <i>Limosa limosa</i> ), Common Redshank ( <i>Tringa totanus</i> ), Eurasian Curlew ( <i>Numenius arquata</i> ) and Northern Lapwing ( <i>Vanellus vanellus</i> )	500 m (1,000 m), also applies for regular breeding occurrences of northern lapwing in agricultural landscapes, insofar as they are at least of regional importance

Colony breeders:	
Hérons	1,000 m (3,000 m)
Gulls	1,000 m (3,000 m)
Terns	1,000 m (at least 3,000 m)

# KAS TRAUCĒ IEVIEST LABO PRAKSI?

«PĀRĀK DAUDZ PUTNU LATVIJĀ» ...



**Apdzimējumi**  
 Mazo erģļu ticamo ligzdu putnu barošanās teritorijas (3 km)  
 Mazo erģļu zināmo ligzdu putnu barošanās teritorijas (3 km)  
 \*Izvētas VES

Pļānotās VES. ĪA sugu zināmās lielās ligzdas un 3 km BUF. 1 km BUF ap mēdi

# KO DARĪT?

## 1. NEBŪVĒT VĒJA PARKUS.

## 2. BŪVĒT, BET VEIKT IETEKMI MAZINOŠUS UN KOMPENSĒJOŠUS PASĀKUMUS.

KOMPENSĒJOŠU PASĀKUMU APJOMAM BŪTU JĀBŪT NE MAZĀKAM KĀ NODARĪJUMAM (T.I., JA IETEKME SKAR, PIEMĒRAM, VIENU MAZĀ ĒRĢĻA LIGZDOŠANAS TERITORIJU, TAD ARĪ KOMPENSĒŠANAS PASĀKUMIEM JĀBŪT ATBILSTOŠI VIENAS TERITORIJAS APJOMĀ) UN TAS VAR IETVERT VISPLAŠĀKĀS DARBĪBAS, PIEMĒRAM:

1. MĀKSLĪGO LIGZDU IZVIETOŠANA UN UZTURĒŠANA, PIEMĒRAM, MELNO STĀRĶU, MAZO ĒRĢĻU, ZIVJU ĒRĢĻU UN JŪRAS ĒRĢĻU LIGZDOŠANAS VIETĀS, KUROS IR NEPIETIEKAMS LIGZDAS KOKU SKAITS UN / VAI LIGZDAS IR NESTABILAS VAI NOKRITUŠAS. DARBI VEICAMI PLĀNOTĀ VĒJA PARKA PERIFĒRIJĀ, VISMĀZ 10 KM ATTĀLUMĀ NO PLĀNOTĀ VĒJA PARKA.
2. BAROŠANĀS VIETU KVALITĀTES UZLABOŠANA, PIEMĒRAM, MAZO ĒRĢĻU LIGZDOŠANAS VIETĀS (MITRAIŅU NOGULU TĪRĪŠANA, VEĢETĀCIJAS FRAGMENTĒŠANA, KOKAUGU APAUGUMA LIKVIDĒŠANA VAI FRAGMENTĒŠANA, ZĀLĀJU, ĪPAŠI, GANĪBU UZTURĒŠANA). DARBI VEICAMI PLĀNOTĀ VĒJA PARKA PERIFĒRIJĀ, VISMĀZ 10 KM ATTĀLUMĀ NO PLĀNOTĀ VĒJA PARKA.
3. BAROŠANĀS VIETU IZVEIDOŠANA, PIEMĒRAM, MAZO ĒRĢĻU LIGZDOŠANAS VIETĀM (MITRĀJU IZVEIDE, KOKAUGU APAUGUMA LIKVIDĒŠANA VAI FRAGMENTĒŠANA, ZĀLĀJU, ĪPAŠI, GANĪBU IERĪKOŠANA). DARBI VEICAMI PLĀNOTĀ VĒJA PARKA PERIFĒRIJĀ, VISMĀZ 10 KM ATTĀLUMĀ NO PLĀNOTĀ VĒJA PARKA.

# KOMPENSĒJOŠI UN IETEKMI MAZINOŠI PASĀKUMI: VĀCIJAS PIEMĒRS

<https://www.wind-energie.de/fileadmin/Redaktion/Dokumente/Dokumente-Englisch/Publications/BWE-Infografik-Naturschutz-English-AhnenEnkel02.pdf>

DYNAMIC DUO: WIND POWER AND CONSERVATION

CLIMATE CHANGE HARMS BOTH HUMANS AND NATURE. RENEWABLE ENERGY CONTRIBUTES NOT ONLY TO CLIMATE PROTECTION; THE ENVIRONMENT, TOO, DIRECTLY BENEFITS FROM WIND ENERGY - THANKS TO CONSCIOUS...

4 MB | JUNE 2018



## Dynamic duo: Wind power and conservation

Climate change harms both humans and nature. Renewable energy contributes not only to climate protection; the environment, too, directly benefits from wind energy – thanks to conscious on-site conservation efforts.

**Far above the rotor blades**  
Migrating birds fly much higher than wind turbines reach. Cranes and songbirds travel at least 500 meters above the ground.

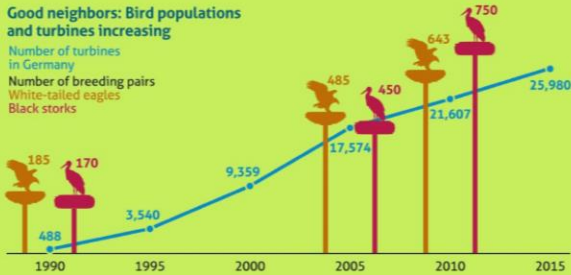
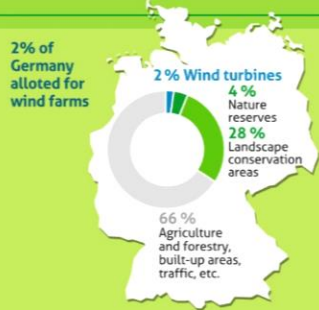
**Wind farms in areas with few species**  
Nature reserves are off limits for wind power. Turbines are only put up where winds are strong, few people live nearby, and there is a low risk of negative consequences for nature. Generally, those are areas that are already being intensively used for agriculture and forestry.

**Turning off for red kites**  
Harvested fields under wind turbines are rich hunting grounds for red kites. To make sure the hunters don't collide with rotor blades, the turbines can be shut off while fields are being cleared and for a few days afterwards.

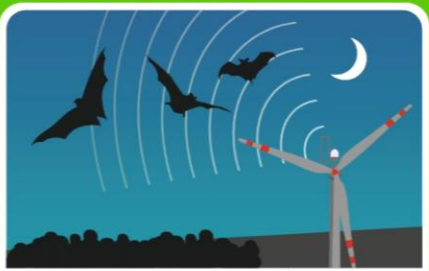
**Wild meadows**  
Ecological projects, such as planting wildflower meadows and meadow orchards, are implemented to compensate for interventions in nature and the landscape. Birds can brood undisturbed in such areas, which become new resting and feeding grounds for wintering birds.

**New habitats for cranes**  
Wind turbines and cranes get along quite well. The noble birds have greatly increased in number in many areas with wind power. If their habitats are diminished, brownfields are returned to nature or dry areas are converted to wet meadows in order to create new opportunities for nesting. This creates new spaces for other species, too.

**Forest reconstruction**  
Anyone who puts up a turbine in a forest needs to compensate for the trees that were cut down. Turbine operators invest in reforestation, ecological forest transformation, and other efforts that provide shelter for wildcats and their young and new breeding grounds for birds and bats.



**Thick vegetation under wind turbines**  
Birds of prey run the risk of collisions if they hunt around wind turbines. Areas under turbines can be planted with plants that give a lot of cover so the would-be prey can hide and the birds hunt in more promising locations.



**Shutting down for bats**  
On warm summer nights with little wind, some bat species hunt at such great heights that they risk getting close to the rotor blades. Many turbines are therefore temporarily turned off on such nights – since there's not much wind anyway, the power yield given up is no great loss.

Graphic: AhnenEnkel, B. Erfurth, M. Kluger commissioned by BWE, 2016

Sources: "Windenergie im Zeichen des Naturschutzes", BWE 2016; "Praxisbeispiele Windenergie & Artenschutz", BUND 2016