

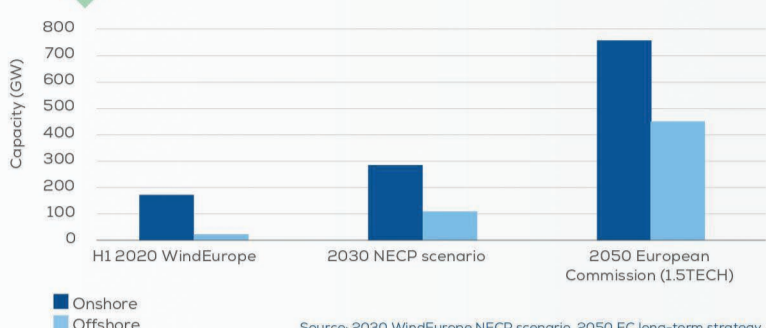
# ALL YOU NEED TO KNOW ABOUT ONSHORE WIND

**Wind**  
EUROPE



## IT'S 90% OF EUROPE'S WIND CAPACITY

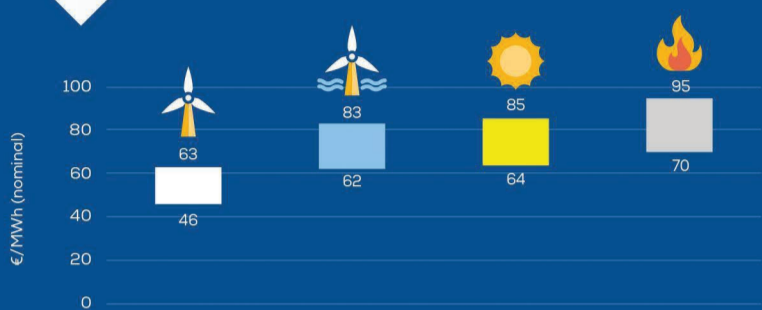
Most of the new wind capacity we build is onshore and will continue to be until at least 2030. Even in 2050 Europe will have more onshore than offshore wind capacity.



Source: 2030 WindEurope NECP scenario, 2050 EC long-term strategy.

## IT'S CHEAP

Onshore wind is the cheapest form of new power generation in most of Europe. As it uses the local wind resource it also reduces Europe's fossil fuel imports - by €10bn pa.



Based on BNEF 2019 data for North West Europe.

## IT BENEFITS COMMUNITIES

Onshore wind farms bring significant benefits to communities in the local taxes they pay and other financial contributions they make. Polls across Europe show that 75-80% of those who live near wind farms support them.



## IT BENEFITS SOCIETY

The 300,000 wind jobs in Europe are mostly in onshore wind. Many of them are in rural, remote or deprived areas. Wind contributes €37bn to EU GDP. Each GW of onshore wind Europe builds supports around 5,000 jobs in planning, manufacturing and installation. The ongoing operation and maintenance of wind farms supports jobs too.



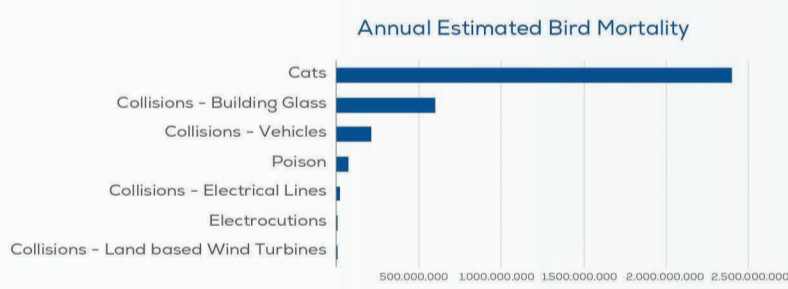
## IT DRIVES EUROPE'S TECH LEADERSHIP

Europe invented onshore wind and continues to lead the development of onshore wind technology. And the technology is evolving rapidly with digitalised wind farms making it easier to integrate renewables in the energy system. The wind industry invests around 5% of its revenue in R&D.



## IT'S GOOD FOR THE ENVIRONMENT

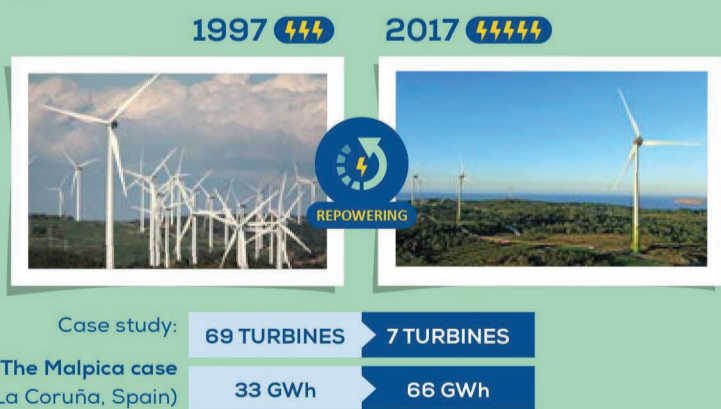
Onshore wind emits no greenhouse gases, no air pollutants, uses almost no water and pays back the energy it uses during its life cycle in less than a year. Wind farms that are well planned, sited and managed intelligently have minimal impact on surrounding habitats and species.



Source: U.S. Fish and Wildlife Services. As of 2017.

## WHAT HAPPENS WHEN TURBINES GET OLD?

The standard lifetime of an onshore wind turbine is 25 years, with some turbines now reaching up to 35 years. Wind farms can then also be repowered: we take down the original turbines and replace them with modern ones. Because the technology has evolved so much, repowering can treble the output of a wind farm with fewer turbines.



Case study: **The Malpica case (La Coruña, Spain)**

## WHAT ABOUT SUSTAINABILITY?

85-90% of a wind turbine can be recycled today. The blades are the most challenging component to recycle due to the composite materials they contain. We can recover the material today through cement co-processing and are developing alternative recycling technologies for them.

