

PRESS RELEASE

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Opposition to Wind Farms: Study Shows Negative Influence of Belief in Conspiracy Theories

To reduce CO2 emissions and meet the Paris climate targets, the German government has set ambitious goals to expand wind energy. However, installing new windmills often fails due to the resistance of the local population. Researchers at the Leibniz Institut für Wissensmedien (IWM) in Tübingen have now shown that belief in conspiracy theories plays a decisive role in the opposition to wind turbines. In addition, they have determined when the provision of information helps reduce opposition and when it remains ineffective.

Wind power could play a decisive role in reducing CO2 emissions and meeting Germany's energy needs amid the current energy crisis. Yet the expansion of this technology has been stalled for several years. In addition to bureaucratic hurdles, resistance from the population often delays the construction of wind farms or prevents it altogether. 'Misinformation and conspiracy theories about windmills – for example, about alleged negative health impacts – are widespread throughout social media', says Dr Kevin Winter, research associate in the Social Processes lab at the IWM. Moreover, it has been shown in previous research that conspiracy beliefs go hand in hand with an increased distrust of authorities and institutions - i.e., the actors driving the expansion of wind energy.

Conspiracy beliefs reduce acceptance of windmills

In cooperation with the University of Queensland (Australia), IWM researchers were now, for the first time, able to demonstrate – through a representative survey of the German population with over 2000 participants – that belief in conspiracy theories plays a decisive role in the opposition to wind turbines. As part of the study, participants were asked to imagine how they would vote in a referendum on the construction of wind turbines in their area. Summarising the results, project



Dr. Kevin Winter / © IWM

leader Winter says that 'conspiracy beliefs exerted a far greater influence than demographic factors such as age, level of education or political affiliation'.

Information only partly effective

Furthermore, based on eight studies with more than 4,000 participants, the researchers observed that providing information about the benefits of wind turbines had a positive effect on approval – even among people inclined to believe in conspiracy theories. However, this positive communication effect was significantly lower when people believed in specific conspiracy theories relating to the referendum or were concurrently presented with negative information about windmills. 'Under real-life conditions, it, therefore, seems difficult to combat conspiracy beliefs with information alone', Winter concludes. In this context, it might be advisable to rely on preventive measures such as high transparency and early communication, which prevent conspiracy theories and misinformation from spreading in the first place.

Link to the study: <https://www.nature.com/articles/s41560-022-01164-w>

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Das Leibniz-Institut für Wissensmedien (IWM)

Das Leibniz-Institut für Wissensmedien (IWM) in Tübingen erforscht, wie digitale Medien Wissens- und Kommunikationsprozesse beeinflussen. Die grundlagen- und anwendungsorientierte Forschung rückt neben institutionellen Lernfeldern wie Schule und Hochschule auch informelles Lernen im Internet, am Arbeitsplatz oder im Museum in den Fokus. Am IWM arbeiten Wissenschaftlerinnen und Wissenschaftler verschiedener Disziplinen zusammen, vor allem aus der Psychologie, Kommunikationswissenschaft, Neurowissenschaft und Informatik. Das 2001 gegründete außeruniversitäre Forschungsinstitut ist Mitglied der Leibniz-Gemeinschaft.