



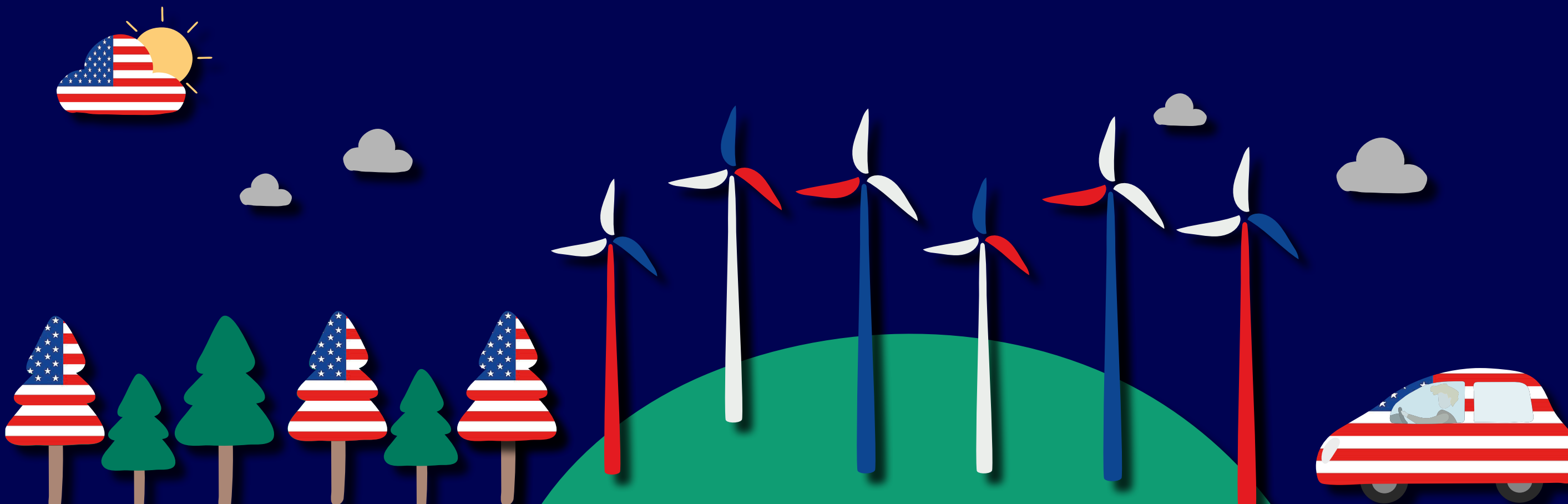
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The environmental issue in the United States

**Graph illustrating the diffusion of environmental policies
between states**

The US federal government's withdrawal from the Paris agreement, formalised on 04 November 2020, has created "a major disappointment for global efforts to reduce greenhouse gas emissions and promote global security". (United Nations, 2017)





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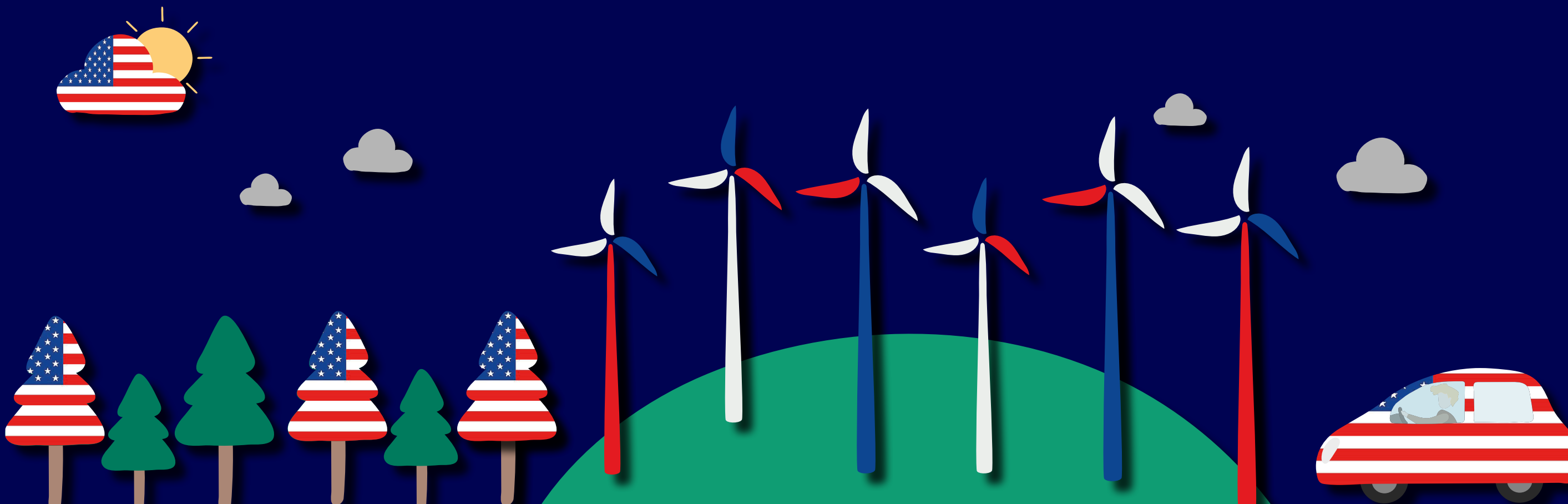
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The withdrawal has also created unexpected new dynamics across the United States:

- > Some U.S. governors have publicly expressed their willingness to take political leadership against global warming,
- > By setting environmental policies at the state level.

If implemented on a broader scale, these policies could keep the country on track with its COP21 contribution: namely, to reduce U.S. emissions by at least 26% from 2005 levels by 2025.

This comes with a strong condition: widespread adoption of environmental policies by U.S. states.



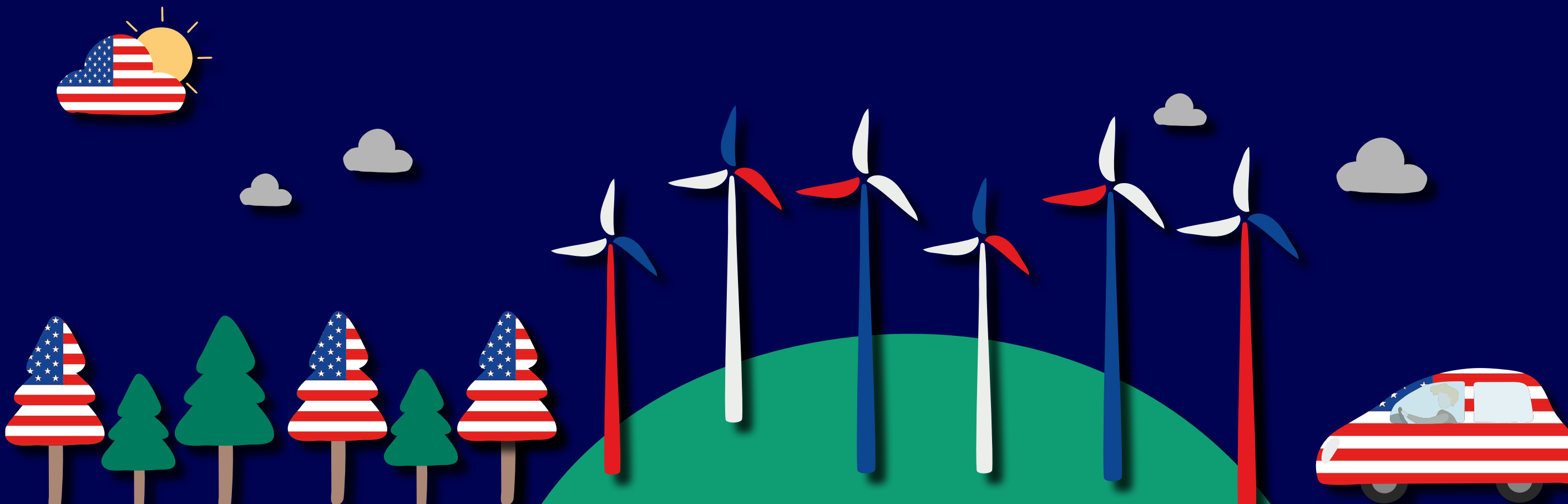


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This raises the question of the diffusion of environmental policies.
How does their adoption and implementation spread?

-> To answer this question, the authors have schematically reproduced the diffusion network of environmental policies across the American states.





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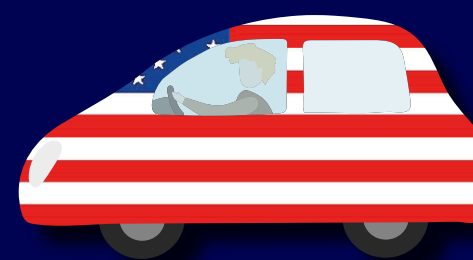
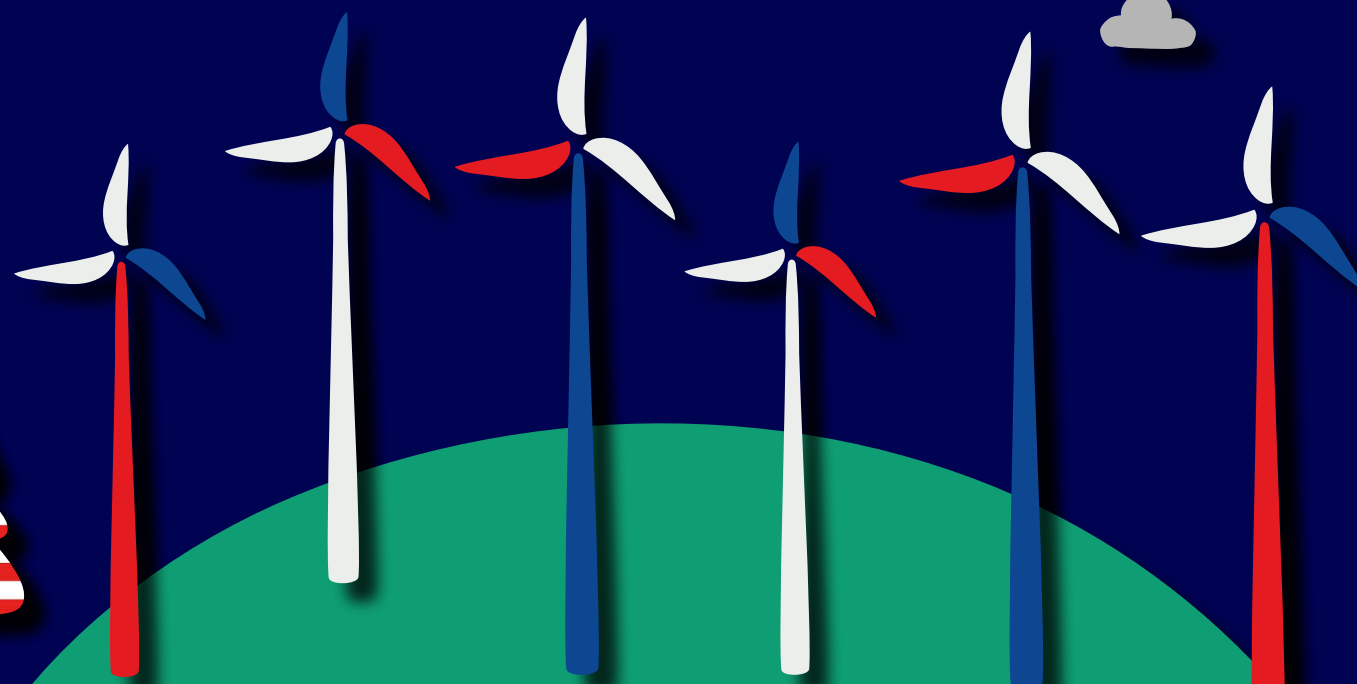
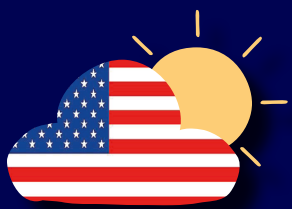
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DATA USED FOR ANALYSIS:

- > A set of information on 74 green policies (related to energy, climate and waste recycling) conducted between 1974 and 2018 in the United States.

APPROACH USED: "NETWORK ECONOMICS":

- > In "network economics", the notion of a "community" corresponds to a subset of nodes that are more densely connected to each other than to nodes outside the subset.
- > In the case of this study, this is a group of U.S. states that share a more or less intense dynamic of environmental policy transmission.





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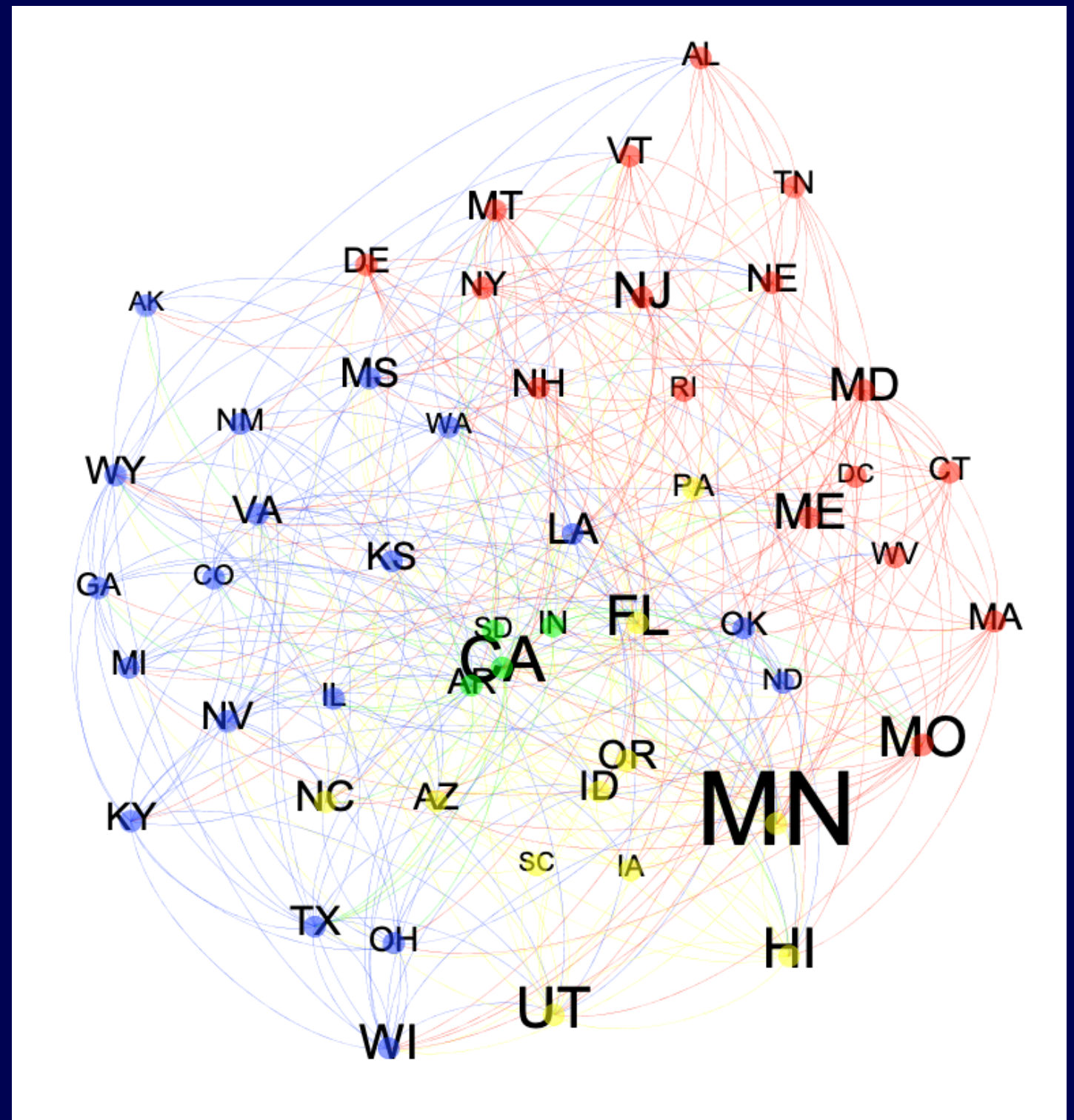
Diagram of the environmental policy dissemination network between the American states

Alabama, Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, Rhode Island, Tennessee, Vermont & West-Virginia

Alaska, Colorado, Georgia, Illinois, Kansas, Kentucky, Louisiana, Michigan, Mississippi, North Dakota, New Mexico, Nevada, Ohio, Oklahoma, Texas, Virginia, Washington, Wisconsin & Wyoming

Arkansas, California, Indiana & South Dakota

Florida, Hawaii, Idaho, Iowa, Minnesota, North Carolina, Oregon, Pennsylvania, South Carolina & Utah



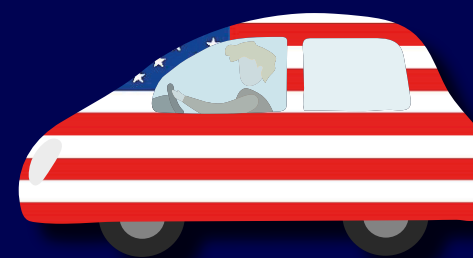
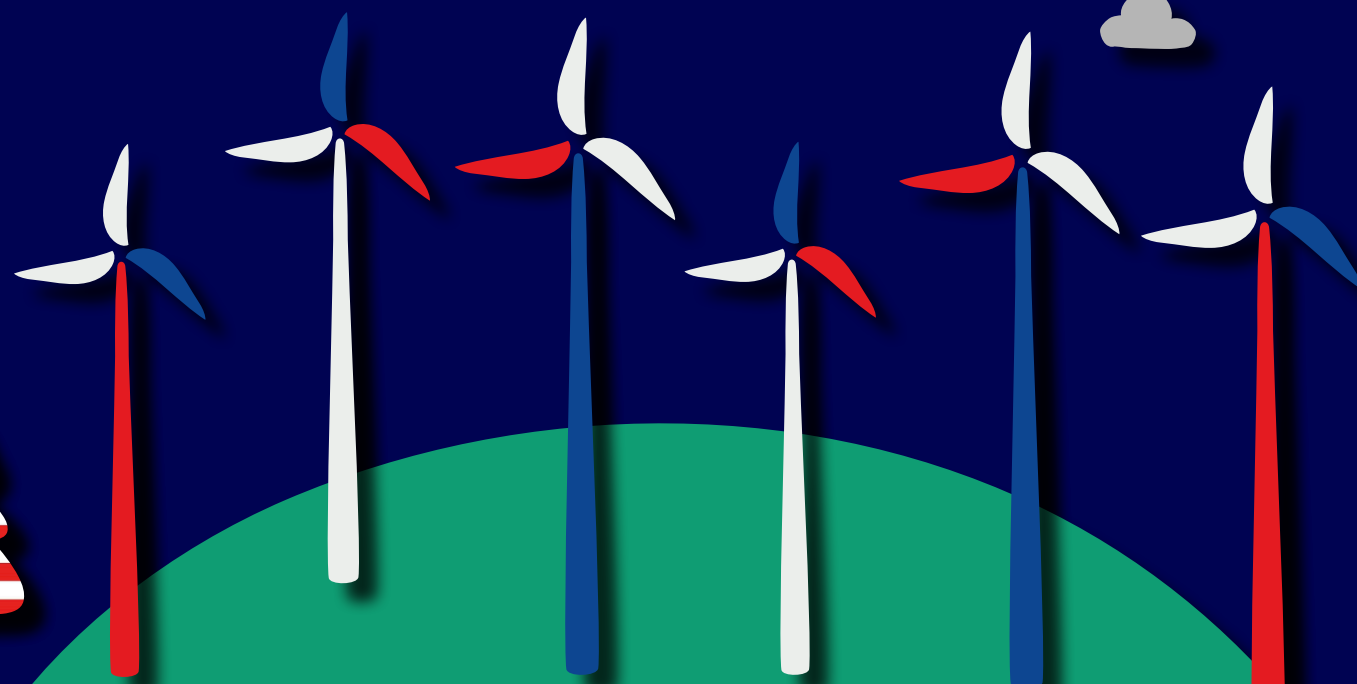
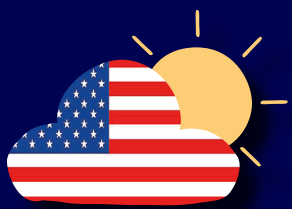


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INTERPRETATION

- > Several communities appear.
- > The smallest community includes four states (Arkansas, California, Indiana, and South Dakota).
- > The largest has nineteen states (Alaska, Colorado, Georgia, Illinois, Kansas, Kentucky, Louisiana, Michigan, Mississippi, North Dakota, New Mexico, Nevada, Ohio, Oklahoma, Texas, Virginia, Washington, Wisconsin, and Wyoming).
- > All states belonging to the Northeast region - with the exception of Pennsylvania - belong to the same community (in red on the graph).



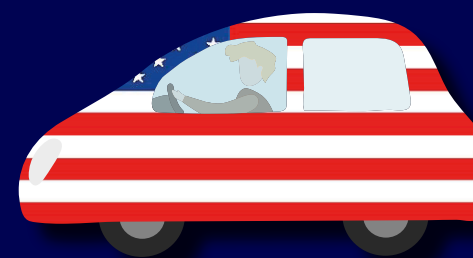
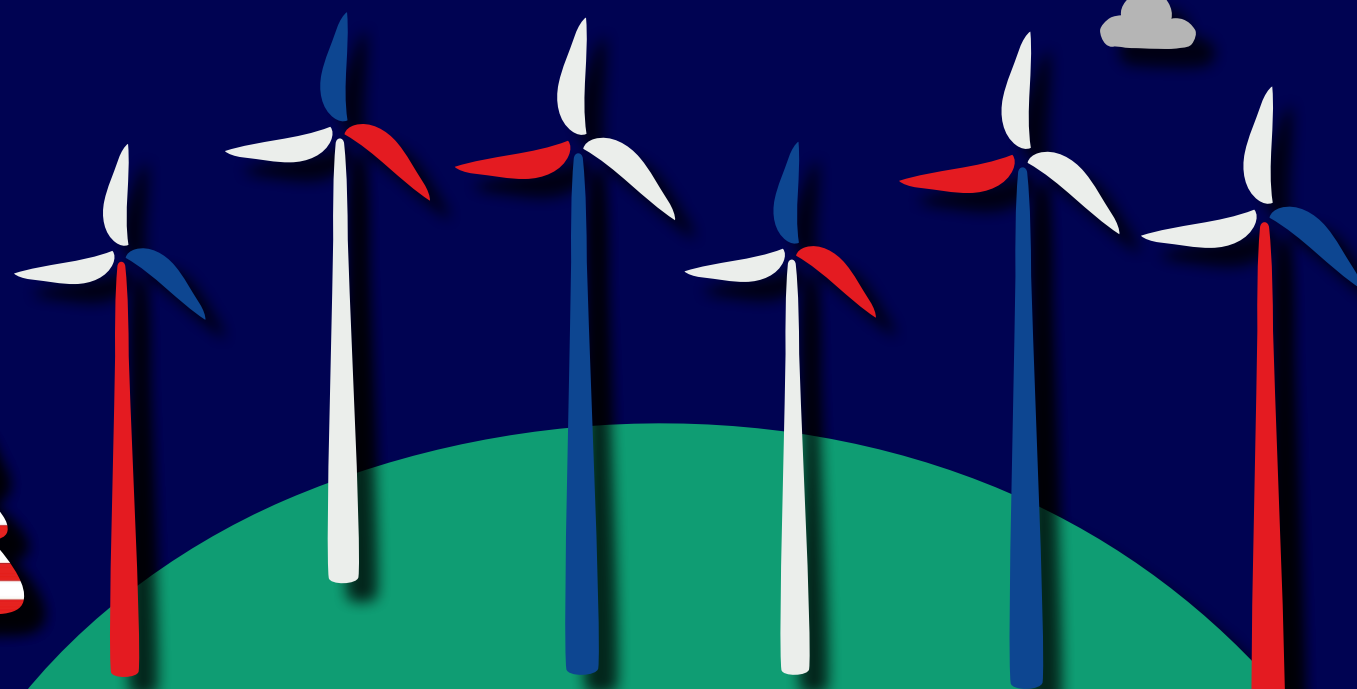
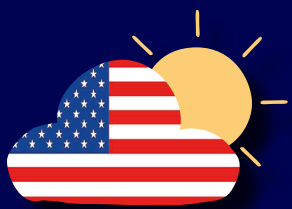


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WHAT DO THESE RESULTS INDICATE?

- > A strong concentration of environmental policy diffusion activity in the northeastern part of the United States and the existence of closely connected clusters of states across the country.
- > Some states emerge as facilitators of policy diffusion in their respective communities (e.g. Minnesota - MN).
- > Policy transmission is not homogeneous across the country. In particular, eastern states tend to influence each other and are insensitive to legislative actions outside their region.

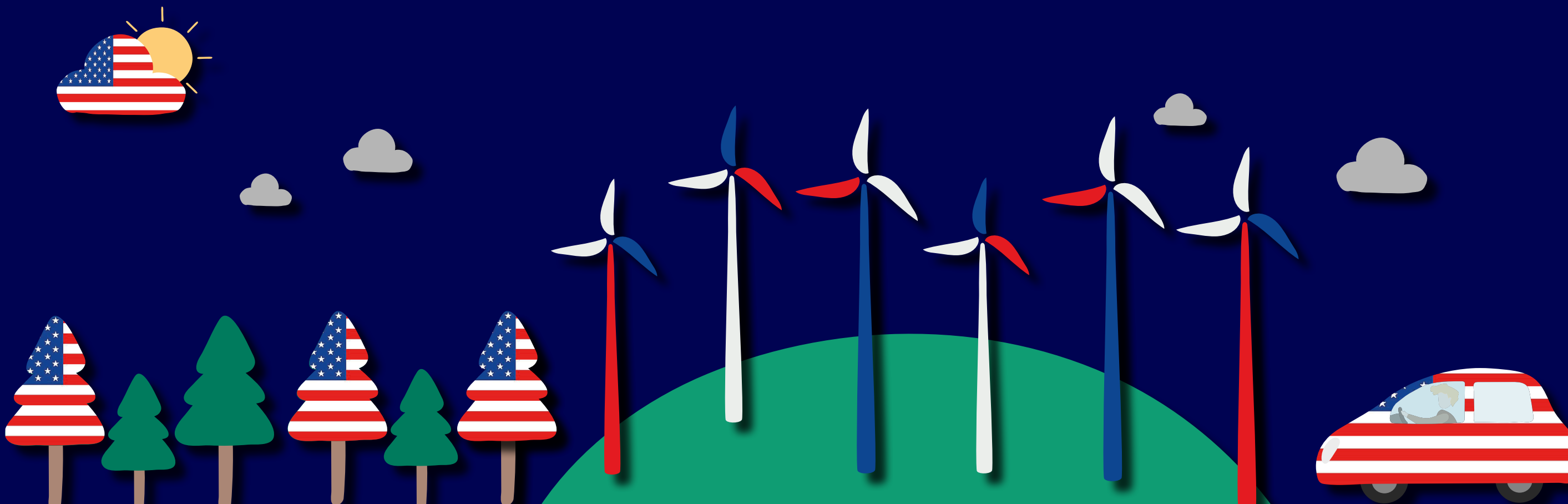




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Finally, these results raise questions about the real capacity of the American states to offset, through their environmental policies, the consequences in terms of emissions linked to the withdrawal of the United States from the Paris Agreement decided at the federal level.





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From

Côme Billard, Anna Creti & Antoine Mandel, 2020,

How Environmental Policies Spread? A network approach to diffusion in the U.S., Climate economics Chair, University Paris Dauphine-PSL.

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