

Home improvers and influencers vital to achieving UK net zero domestic heating targets

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A Finnish home fitted with a heat pump. Credit: University of Sussex

The U.K. needs an army of climate conscious home improvers and influencers if it hopes to get close to Government targets of 600,000 domestic heat pumps by 2028, new research from the University of Sussex Business School suggests.

The new study suggests Government incentives and subsidies alongside education and training are vital, but to meet the [heat](#) pump targets set by Prime Minister Boris Johnson in the ten point plan he announced in

November, enthusiastic heat pump users willing to share their experience are also needed.

The researchers compared the stalled heat pump transition in the U.K. with Finland where one in three homes have been fitted with a heat pump. The study concludes that contrasting levels of enthusiasm in the take-up of heat pumps by U.K. and Finnish homeowners was one of key reasons why the Nordic country had been so much more successful in its domestic heating transition.

The study suggests that a collective action by households who have heat pumps, using for example social media and online forums and detailing their own projects, could help form a social movement to actively lobby for a change to the current U.K. domestic heating industry dominated by gas companies.

And the academics are urging the U.K. Government to use policy to help develop this community of heat pump enthusiasts to lead the transition to green heating options in the U.K.

Lead author Dr. Mari Martiskainen, Senior Research Fellow in the Science Policy Research Unit (SPRU) at the University of Sussex Business School, said: "Robust government policy support for heat pumps is needed in the U.K., but our study also shows that the strong user engagement in the Finnish heat pump adoption was one of key factors explaining the successful diffusion of heat pumps there in contrast with the continuing struggles in the U.K.

"The heat pump movement in Finland began in the mid-1970s and then accelerated in the early 2000s while it is clear that the heat pump transition in the U.K. has remained stuck in the start-up phase since the 1980s.

"In Finland users have been very active in sharing their experiences, and without them the heat pump transition could have been much slower, resulting in persistent market uncertainties that manufacturers and installers may not have been able to solve just by themselves."

For the study, newly published in *Environmental Innovation and Societal Transitions*, researchers at the University of Sussex Business School interviewed more than 50 heat pump adopters and industry experts in Finland and the U.K. The study also scrutinized troves of government policy documents, industry reports and academic literature on heat pumps and analyzed internet archives and historical records of online forums and groups going back 30 years.

In Finland, a country of just over three million households, an estimated 1,030,000 heat pumps have been sold. By comparison, less than 200,000 heat pumps are thought to have been installed in the U.K. since 2000.

The research authors suggest that heat pump home improvers in Finland were more focused in supporting and connecting with each other, especially through online forums, during their country's start-up phase compared to the current state of play in the U.K.

The movement in Finland then grew through heat pump influencers who shared their experiences and stories of heat pump use more widely through events, social media and the press. Researchers found limited evidence of a similar, active, user-legitimizing base in the U.K.

The research also identified the U.K.'s older housing stock, which can make heat pumps less efficient, a lack of legislation in the U.K. encouraging heat pump adoption particularly in new build homes, very limited efforts by U.K. utility companies to promote their use, and Finland's much lower reliance on gas as other reasons why the two countries take-up of heat pumps contrast so markedly.

Industry experts also highlighted a lack of awareness around heat pumps in the U.K. as a key barrier to take-up—a lack of knowledge not only among the general public but also architects, builders, property developers, heating installers, and policymakers. The U.K. also lacked a strong political voice promoting the industry, the researchers were told.

Johan Schot, Professor of Global History and Sustainability Transitions at the Utrecht University Center for Global Challenges, said: "What the U.K. needs is not simply a process of heat pump adoption, but in fact a transition to a new indoor domestic regime that requires many other regulatory, institutional, market, industry, and cultural changes in addition to the technological ones.

"The current undesirability and unattractiveness of [heat pumps](#) in the U.K. is a logical consequence of past choices and policies, and thus can be undone by new choices, though path-dependencies need to be taken into account."

Benjamin K Sovacool, Professor of Energy Policy in the Science Policy Research Unit (SPRU) at the University of Sussex Business School, said: "The emphasis our study places on user involvement is not meant to be a substitute for policy. Instead we argue that users and [policy](#) form a recursive and interactive relationship.

"Policy makers and governmental actors should develop measures that complement user activities—like for example took place in Finland with government-affiliated energy efficiency agency Motiva playing a key part in the establishment of a heat pump association that helped to bring the sector together and create a strong lobbying voice that led to supportive government policies.

"Policy could even be aimed at enabling and facilitating a broad community of heat [pump](#) enthusiasts and experts."

More information: Mari Martiskainen et al. User innovation, niche construction and regime destabilization in heat pump transitions, *Environmental Innovation and Societal Transitions* (2021). [DOI: 10.1016/j.eist.2021.03.001](https://doi.org/10.1016/j.eist.2021.03.001)

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