Energy
National Research Programmes 70 and 71

Project

Energy-related innovations

How to motivate companies to adopt green innovation

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In order to reduce energy consumption, corporations need to switch to greener technologies and products. Accordingly, suitable policies should provide incentives to do so. Researchers from Austria, Germany and Switzerland have compared incentives implemented in their countries to determine which are the most effective.



If the federal government's energy goals are to be achieved, companies must switch to environment-friendlier technologies. *Source:* Adobe Stock

At a glance

- In this project, researchers identified the policy instruments that are best suited to promote green innovation in companies.
- Government subsidies are fairly effective, but involve costs.
- Consumers can also exercise influence by choosing environmentally friendly products.
- Policy-makers can reinforce this effect by launching campaigns to raise awareness regarding environmentally friendly consumption.

The federal government's Energy Strategy 2050 aims to significantly reduce energy consumption, especially in businesses. For this to succeed, policy-makers must create a reasonable framework and incentives, such as taxes, subsidies and regulations designed to encourage companies to implement environmentally friendly innovations. In order to determine which political instruments work best, the researchers involved in this project sent a questionnaire to 20,000 companies in Germany, Austria and Switzerland. More than 4500 replied.

The survey revealed that the current legal prescriptions are only moderately effective in encouraging companies to adopt environmentally friendly technologies. And above all, they do not have a major impact on the level of investment into these technologies. Differences between the three countries were observed: taxes are most effective in Germany, subsidies in Austria and voluntary agreements in Switzerland. The researchers came to the conclusion that simply adopting a well-functioning model from another country is not the appropriate solution. Due to the fact that the entire legal environment plays an important part in its success, not every model works equally well in every country.

A changeover involves costs

The study presented here shows that subsidies are most likely to encourage investments in green technologies, which, according to the researchers, is the reason why politicians should consider adopting this efficient, albeit expensive, strategy. However, there is another way to encourage companies to invest in environmentally friendly technologies: the power of consumers. By giving preference to green products when shopping, they can apply pressure on companies to offer these goods. Here too, politics can exert influence. An obligation to declare the energy efficiency of a manufacturing process, for instance, would allow consumers to obtain information. And with appropriate campaigns, the state could promote awareness concerning the purchase of sustainably manufactured products.

In addition, the study has shown that voluntary commitments to more economical behaviour are also effective, especially in Switzerland. One of the reasons is that this strategy allows companies to avoid potentially stricter legal regulations. On the other hand, additional taxes only lead to increased green innovation in companies that are already at the forefront of technology. In most other companies, the additional taxes owed to the state mean that there is no money left for the development or acquisition of new technologies.

Will this affect competitiveness?

Concerns are widespread both in the population and among policy-makers that government-imposed regulations for higher standards of environmental protection may lead to loss of international competitiveness of companies. To assess these reservations, researchers have analysed various export indicators, but have found no evidence that these concerns are justified. On the contrary: in the survey, several companies reported higher export volumes after having introduced energy-related innovations. Thanks to green technologies in their production chain, they were able to open up new sales markets. Nevertheless, the researchers assume that most companies will not introduce sufficient new, environmentally friendly technologies and products of their own accord. Policy-makers are therefore called upon to act, so that the goals of the Energy Strategy 2050 can be achieved.

Produkte aus diesem Projekt

- Welche Unternehmen profitieren von Investitionen in grüne Energietechnologien? – Die Bedeutung der Energiekosten
  Date of publication: 16.01.19
- Mit energiebezogenen Innovationen die Wettbewerbsposition verbessern
  Date of publication: 16.01.19
- Kick-off-Poster
  Date of publication: 16.01.19
- Creation and Adoption of Energy-related Innovations – the Main Facts
  Date of publication: 16.01.19
- How Different Policy Instruments Affect the Creation of Green Energy Innovation: A Differentiated Perspective
  Date of publication: 16.01.19
- Does Energy Policy Hurt International Competitiveness of Firms? A Comparative Study for Germany, Switzerland and Austria
  Date of publication: 16.01.19
- Development and Utilization of Energy-related Technologies, Economic Performance and the Role of Policy Instruments
  Date of publication: 16.01.19
- Competitiveness and ecological impacts of green energy technologies: firm-level evidence for the DACH region
  Date of publication: 16.01.19
- Energieeffiziente Investitionen zahlen sich aus
  Date of publication: 16.01.19

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Associated projects



Environmental tax reform and endogenous growth

An Environmental Tax for More Innovation



Determinants of energy-efficiency Investments

Energy Efficiency in Companies - a Hot Topic

All information provided on these pages corresponds to the status of knowledge as of 18.06.2019.