

Innovation success partly determined by composition of consortia

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Merely stimulating collaboration between different parties from science, government and industry does not always lead to the development of new, innovative technologies. Whether the partners involved have previously worked together and whether other collaborations are taking place at the same time are also important, state scientists from Utrecht University in the journal *Research Policy*. The research was co-funded by NWO (Veni grant).

Governments can use various policy instruments to encourage technological [innovation](#). At present, however, little is known about the extent to which these instruments actually have the desired effect. To gain more insight into this, the researchers from Utrecht University examined a large collaboration between universities, government bodies and industry in which biogas installations were developed between 2003 and 2014. This was an ideal case study for the researchers because the implementation of biogas requires not just technical but also societal innovation. By definition this can only be achieved through far-reaching collaboration. Biogas is an innovative and sustainable source of energy but is currently strongly dependent on government subsidies.

Counterproductive effect

The researchers examined how the composition of the consortium influenced the degree of innovation of the biogas installation. They discovered that involving different types of partners led to more

innovation as long as the partners are only ever involved in a single collaboration at any given time. Several collaborations at once can give rise to counterproductive effects as such a situation quickly leads to imitation. This is also a risk for partners who have previously collaborated with each other. Principal investigator Frank van Rijnsoever: "Our analysis reveals that more collaboration between companies and universities alone is not enough. You need to deploy the subsidy smartly, for example, by rewarding consortia that operate independently of each other."

"In the case investigated it can be clearly seen that biogas installations constructed by the same parties are very similar to each other. This is simply because parties have a certain expertise that they make repeated use of. This does not lead to new types of installations, even though that is usually the aim of the innovation policy," says Van Rijnsoever. He therefore thinks that when it takes subsidy decisions, the government should also consider whether applicants are involved in any other collaborative programmes.

However, the researchers emphasise that they have only looked at the degree of newness and not how well the technology, in this case a biogas installation, functions. "But if the aim of a subsidy is to develop new technologies and therefore to ensure innovation then that should indeed be the most important criterion, as only then is the subsidy justified," says van Rijnsoever.

More information: Frank J. van Rijnsoever, Jesse van den Berg, Joost Koch, Marko P. Hekkert, "Smart innovation policy: How network position and project composition affect the diversity of an emerging technology," *Research Policy*, Available online 24 December 2014, ISSN 0048-7333, [DOI: 10.1016/j.respol.2014.12.004](https://doi.org/10.1016/j.respol.2014.12.004).

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