

# Germany Isn't a Leader in Science



By Alex Berezow, PhD — September 26, 2017



Credit: NuclearVacuum/Wikipedia [1]

In order to capitalize on current events and our hyperpartisan climate, science news outlets increasingly feel the need to weigh in on how day-to-day political affairs will affect science.

Originally in *Nature News* and reprinted by *Scientific American*, an [article](#) [2] published on Monday boldly proclaims, "What Germany's election results mean for science." The authors suggest tighter regulations on GMOs and ambiguity on energy/climate policy.

Here's a better answer: The German election means nothing for science. Absolutely nothing. Nobody with any credibility looks to Germany for leadership on scientific issues. There are multiple reasons for this.

First, as a purely financial matter, Germany's modern-day contribution to science is respectable but hardly revolutionary. According to [R&D Magazine](#) [3], Germany spent about \$112 billion on research and development in 2017, which represents about 5.4% of the global total. (Global R&D was just over \$2 trillion.) By comparison, the U.S. (25.5%) and China (20.8%) contributed far more<sup>1</sup>

Second, the world's best universities are not located in Germany. Of the top 25 global universities ranked by the [Times Higher Education](#) [4], zero are in Germany, compared to 17 in the U.S., five in the UK, and one each in Switzerland, Singapore, and Canada<sup>2</sup>.

Third, Germany has made itself largely irrelevant on cutting edge scientific issues, such as agricultural biotechnology and nuclear power<sup>3</sup>. Despite her PhD in physical chemistry, Angela Merkel has consistently given in to anti-science activists in Germany. Defying the opinions of mainstream scientists, she has decided to shut down Germany's nuclear reactors and is considering banning the cultivation of GMOs. The reason, as I wrote recently for [The National Interest](#)

[5], is because Mrs. Merkel is a mediocre, wishy-washy politician who is far more concerned about being re-elected than doing what is in Germany's long-term best interest.

Finally, as I wrote with French researcher Marcel Kuntz in the UK's *Telegraph* [6], Europe as a whole has taken a giant step backward in terms of scientific leadership, largely due to the continent's culture of technological timidity and an uncompetitive ethos. Indeed, this manifests as a lack of high-impact research, as demonstrated by a *paper* [7] in the journal *Science and Public Policy*.

The latest chatter has centered around Mrs. Merkel's new governing coalition, which might have to involve the Green Party. What does that mean for science? It simply means that the preexisting anti-nuclear, anti-GMO, and anti-technology policies that were already prevalent under Mrs. Merkel will be reinforced.

And the world won't notice.

### Notes

(1) One could argue, correctly, that Germany is punching above its weight: Its contribution to global R&D is higher than its contribution to global GDP. Fair enough, but Germany is still a relatively small player compared to the U.S. and China.

(2) The top 100 is more charitable to Germany. Of the top 100 global universities, Germany has 10. However, the U.S. has 43 and the UK has 12. (*U.S. News & World Report* [8]'s ranking of global universities is far less charitable to Germany. It only gives the nation four of the top 100, compared to a whopping 51 for the U.S.)

(3) Actually, it's worse than that. Germany's ideological opposition to nuclear power and GMOs holds back progress in other countries.

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### **Links**

[1] <https://en.wikipedia.org/wiki/Germany#/media/File:EU-Germany.svg>

[2] <http://www.nature.com/news/what-germany-s-election-results-mean-for-science-1.22667>

[3] [http://digital.rdmag.com/researchanddevelopment/2017\\_global\\_r\\_d\\_funding\\_forecast?pg=4#pg4](http://digital.rdmag.com/researchanddevelopment/2017_global_r_d_funding_forecast?pg=4#pg4)

[4] [https://www.timeshighereducation.com/world-university-rankings/2018/world-ranking#!/page/0/length/25/sort\\_by/rank/sort\\_order/asc/cols/stats](https://www.timeshighereducation.com/world-university-rankings/2018/world-ranking#!/page/0/length/25/sort_by/rank/sort_order/asc/cols/stats)

[5] <http://nationalinterest.org/blog/the-buzz/merkel-cant-lead-germany-much-less-the-free-world-22330>

[6] <http://www.telegraph.co.uk/news/2017/09/05/timidity-hostility-competition-have-left-europe-scientific-wasteland/>

[7] <https://academic.oup.com/spp/article/doi/10.1093/scipol/scx021/3788009/European-Paradox-or-Delusion-Are-European-Science>

[8] <https://www.usnews.com/education/best-global-universities/rankings>