

profile

Hed: The Science Chancellor

Dek: Despite significant social, economic, and political issues at home, Angela Merkel is intent on bringing science to Europe's center stage.

Wc: 1500

German Chancellor Angela Merkel—theoretical chemist, head of state during Germany's upcoming EU presidency, and current leader of the G8—recently took a shot at the climate politicking of the United States. “To prevent global warming, the nations with the largest emissions of gases that are causing climate change will have to take part,” she stated. “That's why we will make this an important issue again on the agenda during our G8 presidency.”

It was a bold move, considering the U.S. delegation's notorious avoidance of climate commitments during Tony Blair's G8 leadership two years ago. But Merkel, whose direct diplomatic style has been dubbed “the Merkel method,” is capable of exploiting the potential of complex situations. Her political success has come as a result of both her analytical mind and her remarkable tenacity. Merkel is, in many ways, still a scientist, and Germany—the fifth-largest economy in the world—is her lab.

Merkel was born in 1954 in Hamburg, but she didn't see much of it: Her father, Horst Kasner, decided that year to take his family to Soviet-held East Germany, where he became a pastor about 50 miles north of Berlin. Merkel attended church, despite the risks; in the communist society, churchgoing could make it almost impossible to gain admission to state-controlled university, get good jobs, or even rent an apartment.

Typical for a household on the outskirts of a discriminatory society, Kasner drilled into his children the importance of being that much better than the best of their peers. By all accounts, the young Angela Merkel was an overachiever almost unto caricature. Classmates have described her as the one who studied

at the bus stop, as the girl who never got kissed. Her father engaged her in political conversations, and she joined the Pioneers, the communist version of the Scouts, becoming secretary of the local Free German Youth outfit. Merkel was a dedicated scholar and an intelligent political player even at a young age, which helped her to get into the University of Leipzig and then the Berlin Academy of Sciences, where she earned her PhD in physical chemistry. Throughout the 1980s Merkel worked on quantum chemistry, specifically on velocity constant calculations and decay in hydrocarbon molecules, writing papers for the East German science journal *Zeitschrift für Physikalische Chemie*.

In the late 1980s, seeing a chance to further exercise her lifelong political acumen, she joined a proto-conservative party in dissolving East Germany. After the fall of the Berlin Wall, Merkel joined the Christian Democratic Union (CDU), won her first parliamentary seat in 1990, and joined then-Chancellor Helmut Kohl's cabinet as Minister of Women and Youth. In 1994 Kohl appointed her Minister of Environment and Reactor Safety, further raising her profile. By 2000, she was CDU party leader, and after a political rival lost the election to Gerhard Schröder and the SPD party in 2002, she won CDU's nomination to challenge him directly in 2005. Neither won a majority; both Merkel's party and Schröder's party negotiated a Grand Coalition to run the nation, with Merkel as Germany's first woman—and first scientist—chancellor.

Throughout her political career, Merkel's patience and focus have been evident; it's not clear if these traits led her into science, or if the scientific training imparted them. "She's bright, open-minded, conscious of the importance of things, and not easily distracted," says Hubert Markl, who met her several times while heading the Max Planck Society. "She is clearly of the type that wants to know exactly what is going on, how actions will influence our economy and society and future. She wants to know how it will play out in the end."

In both style and substance, Angela Merkel has established herself as a passionate advocate of science. An op-ed she wrote for *Science* in July

reiterated her belief that analytics and patient reason can change society; in it, Merkel touted a new €6 billion fund for innovative “beacon projects,” plus an increase in R&D funding to 3 percent of Germany’s \$2.5 billion GDP through 2010. She’s also made an impact on the German science community. “They’re all impressed that a scientist, a real scientist who really did scientific work and didn’t just get a degree and move on, finally made it to the top of the political ladder,” says Ulf von Rauchhaupt, science editor at the *Frankfurter Allgemeine Sonntagszeitung*.

Merkel’s investments in both German and European science infrastructure comes at a time when Germany’s research community is already thriving. At the Max Planck Institute’s Department of Evolutionary Anthropology in Leipzig, Svante Pääbo’s team is working on sequencing the extinct Neanderthal genome. Günter Fuhr at the Fraunhofer Institute for Biomedical Engineering is developing technology for industrial-size cryobanks with a view to stem-cell and HIV-vaccine research. Timo Ulrichs’s TB group at the Koch-Mentschnikov Forum in Berlin—a new German-Russian forum that opened in October under the wings of Merkel and Putin—is looking into not just TB vaccines but new DNA vectors to deliver them.

Germany, which is home to several large independent research outfits employing thousands of scientists, is seeing venture capital flow in after Merkel’s federal investments. Rainer Strohmenger, at Munich-based VC outfit Wellington Partners recently commented that big pharma’s top execs are coming to Germany to lay out pipeline needs.

When Merkel puts in appearances at science-related events, she takes the opportunity to reinforce her political belief in scientific endeavor. After quizzing German astronaut Thomas Reiter about his physics experiments on board the international space station at the ESA this summer, she took to the microphones: “Space exerts not only a great fascination but also provides, via scientific experiments, great value, in particular for research in the health and medical sector.”

Politically, Merkel has shown that she's a staunch individualist with little regard for popular convention or scandal. Though she was raised Protestant, she doesn't exhibit the religious fervor that has been a hallmark of other Western leaders. When her mentor, former Chancellor Helmut Kohl (who used to refer to her as "the Girl") was caught in an election scandal, Merkel quickly and publicly distanced herself, though Kohl had made her environmental minister after only four years in politics. It was a bold, independent move, and it propelled her to prominence.

"Scientists think differently than lawyers," says Timo Ulrichs. "I sometimes realize that Merkel is thinking in a way you'd encounter in a research institute."

Merkel's science agenda exists within a tense political reality. The budgetary issues of health care, pension reform, education, and the cultural integration of Germany's Muslim immigrants are the top political concerns of most everyday Germans. Islamic fundamentalism, in particular, has become a high-profile issue and a recurring news story, recent honor killings of "Westernized" sisters and daughters having shocked the nation. Meanwhile, a lack of prospects among the poor in the East is leading to gains in the fascist vote. Merkel, while cultivating a pro-science, pro-research culture, also has to provide jobs. And while Merkel believes that a renewed German science culture can help reinvigorate the economy, the clock on this chancellorship is ticking.

Her science agenda has already been challenged. While Merkel has placed international climate-change policies at the top of the talking points for the coming German-hosted G8 meeting, her argument that global warming necessitates reinvestment in nuclear energy (her faith in the safety of advanced science is key here) has drawn fierce criticism from the Green Party, a powerful force in German politics, as well as Merkel's current coalition partners in the SPD. Environmental critics point out that while Germany may be the clear leader in solar and wind energy, alternative, nonpolluting energies account for only a tiny fraction of the country's daily power consumption.

2007 is Merkel's year. *Forbes* has already named her the "most powerful woman in the world," and if her stated plans for international influence on issues of scientific development and climate policy take hold, this coming year could see her lead a cultural and economic shift in Europe. But it's a fragile moment. The wonder years of industrial style, engineering, and autobahns without speed limits are but a mirage.

As Berlin takes on the EU presidency in January, one of Merkel's main goals is to make a name for the European Research Council (ERC). The new body was conceived in 2002 and established a scientific council in 2005; funded from across Europe, it has broad support from both science and government to pursue frontier research. The ERC is set to start funding projects from across Europe in early '07 and recently hired Ernst-Ludwig Winnacker, former head of the well-regarded Deutsches Forschungsgemeinschaft (German Research Foundation) as its first general secretary. If ERC establishes itself decisively as a force for innovation, it will be a key step toward achieving Merkel's larger vision. With Germany as the dynamo, Europe's economy can be the world's most competitive, allocating research spending at 3 percent of GDP across the board by 2010. It seems only right that a politician with the mind of a scientist brings Germany—and Europe—closer to that goal.