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BIOTECHNOLOGY IN NORTH RHINE -WESTPHALIA

GERMANY'S BIOTECH BIG NAME

Where was plant biotechnology invented? Where were the walls between academia and industry, until recently as typically German as bratwurst, first torn down?

Where was BioGenTec, the country's first concerted regional effort of politicians, businessmen and scientists to develop biotechnology, set up?

The answer to all three questions is North Rhine-Westphalia. Despite the unmemorable and difficult-to-pronounce moniker, even in acronym form, NRW has held the spotlight for biotech achievement in Germany since the 1980s, although it was on the verge of losing its pioneering role due to political indetermination around the turn of the century. Today, NRW is once again—in every sense—Germany's biotech big name.

The region between Rhine and Ruhr has long been the country's powerhouse of business and industry, notably heavy industry. Coal and steel production flourished for almost 150 years using the Ruhr area's plentiful resources, and a burgeoning chemical industry developed from the 1860s onwards, taking advantage of the abundance of local coal and its derivatives, and of the cooling waters and transport capacities of the Rhine and its tributaries. But over the last 50 years dwindling competitiveness has decimated the traditional industries. The transformation has been so extensive that it is hard to take in. For decades, "structural change" became the watchword for the state's economy. Popular coverage has lauded the switch to services, new technologies and high-tech industries, generally focusing on information technologies, communications, material sciences, engineering and energy. But the German news media has had a curious blind spot when it comes to biotechnology. This supplement puts that right: it describes the spectacular variety and quality of NRW's biotech sector. In putting it together we leaned heavily on local expertise, especially on members of the Editorial Advisory Board. We thank them deeply but stress that responsibility for the content rests with us.

Somewhat counter-intuitively, NRW's strong chemical and pharmaceutical industries hampered the initial growth of the biotech sector. The boards of the big diversified companies were dominated by chemists who were sceptical of the worth of biotechnology. In addition the political climate was unfavourable to biotech plants, strengthening the reluctance of the chemical giants to invest. That's all changed. Chemistry and biology are no longer in contradiction,

allowing NRW to take full advantage of its legacy. Today, NRW is arguably the leading location worldwide for the development of industrial biotechnology processes, in which biological, process engineering and chemical expertise are merged.

Two other factors are at play: The current prime minister of NRW, Jürgen Rüttgers, was Federal Research Minister of Germany between 1994 and 1998. His heart is in biotechnology.

And, regardless of the political affiliation of its governments, there is a genuine consensus on support for innovation to maintain the state's wealth and welfare. The phrase "We in North Rhine-Westphalia"—born under the reconciling, 20-year-long leadership of its late prime minister Johannes Rau—has developed real meaning in this artificially designed state, imparting leaders and inhabitants alike with a stronger feeling of belonging together than the citizens of many other, much more traditional German states. This "We" feeling enabled the creation of platforms like the stem cell network which is unique in Germany. And it paves the way to a problem-solving-oriented future that will be of great benefit to a complex enterprise such as biotechnology.

In these pages we profile the people, institutions, organizations and companies that form a growing and optimistic sector of the economy of an industrial giant. North Rhine-Westphalia isn't just the longest name; it's also the biggest news, in German biotechnology.

We acknowledge and thank the many sponsors of the supplement, without whom this publication would not have been possible. ■



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Supplement Editor



Richard Gallagher
Editor and Publisher, *The Scientist*





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