



Photo: Norbert Tacken

Flourishing Science

For four decades now, a white dish has been the defining feature of the landscape surrounding Effelsberg in the Eifel region. This is where, on May 12, 1971, the 100-meter telescope of the Max Planck Institute for Radio Astronomy was unveiled. Since then, the fully steerable radio antenna – for many years the largest of its kind – has impressed the world with its sheer dimensions. But this precision instrument also has an impressive scientific track record: it has served two generations of astronomers, who have scoured space in the long-wave spectral range and published thousands of articles and essays. The antenna gained fame in the 1970s for its 408-megahertz survey of the radio sky. In addition, to date, researchers have found new molecules and spectral lines in interstellar space, discovered the most distant source of water – 11 billion light-years away – and proved for the first time the existence of giant ordered magnetic field structures in other galaxies, as well as the relativistic effect of geodetic precession outside the solar system and in strong gravitational fields. Despite its age, the telescope is not yet even remotely a candidate for the scrap heap: thanks to good care, regular modernization and enormous advances in digital electronics, it is better today than ever before.