Astronomers around the globe are seeing deeper into space, joining forces to create what’s touted as the world’s largest virtual telescope.

The project, known as EXPReS, aims to connect up to 16 of the world’s most sensitive radio telescopes via fiber optic networks to a central data processor. The telescopes can then simultaneously gather and compile data in real time.

Last August, EXPReS linked telescopes in China, Europe and Australia—allowing scientists to conduct observations with a system akin to a telescope over 12,300 kilometers (7,600 miles) in diameter.

JIVE, a European institute for astronomical research, along with 19 other partners, launched EXPReS in March 2006, when the European Commission granted it a three-year, €3.9 million contract. The project is gathering information that will help scientists better understand unpredictable events, such as supernova explosions and gamma ray bursts.

By its estimated completion in March 2009, the project is slated to connect institutes across Europe, Asia, Australia, South America, South Africa and the United States to the data correlator at JIVE. – Tegan Jones

Managing research projects is difficult. If the answers to problems were obvious or self-evident, it would not be research. So, when milestones and deliverables are missed, there needs to be both leniency and a bit of a hard line drawn to make sure that forward progress continues.

— T. Charles Yun, manager, EXPReS at JIVE

Dwingeloo, Netherlands