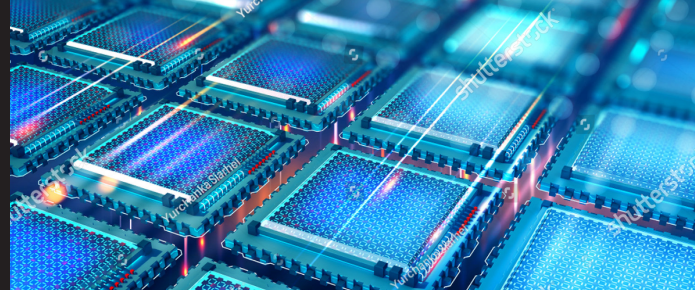


Building a Quantum Network with Corporate Innovation

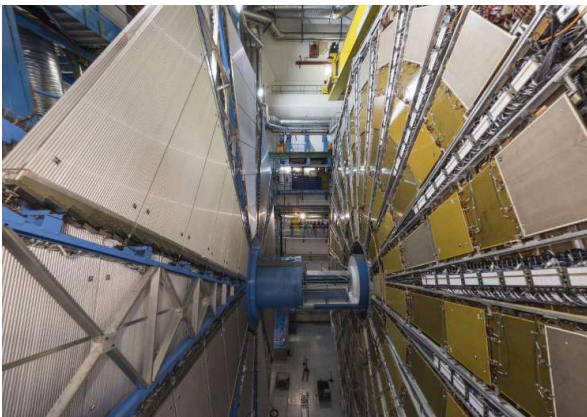


At the AT&T Foundry, we believe that there is always a frontier to be explored, a better product to be built, and an improved service to provide. **This principle is what motivated AT&T Foundry and collaborators at the California Institute of Technology (Caltech) to establish the Intelligent Quantum Networks and Technologies (INQNET) program last year.**

INQNET is designed to accelerate the development of quantum communication technologies ushering in commercial products and applications. This partnership established a research and development program that brings together experts in academia, industry, and government to focus on building a scalable quantum network.

The potential impact of [quantum networks](#) will be big. We're already witnessing the building of the first few quantum computers, and this technology is quickly migrating from research labs to industrial development. At INQNET, we're figuring out how to link those quantum computers together and build quantum networks. **Eventually, we plan to build a quantum internet that will connect quantum computers and devices across the world – much like the internet today connects “classical” devices.**

Creating the network that will eventually link millions of quantum devices together requires tapping into the collective intelligence of numerous experts working and networking together. Our goal through INQNET has been to establish a culture of collaborative work to solve challenging problems by bringing together expertise and resources. This is a unique approach, and at the AT&T Foundry we're formulating this new organizational prototype for corporate innovation.



The 7000-ton ATLAS detector located in a cavern 100 meters below a small Swiss village.

This collaborative organizational model can be an effective tool for innovation and can produce results. One example is **the ATLAS experiment at the European Organization for Nuclear Research (CERN) in Switzerland, one of the world's largest and most respected centers for scientific research, consisted of about 3,000 scientists and engineers from 38 or more countries.** The approach to this experiment was to divide the large problems into smaller ones, and then delegate them to the most capable experts. Once each part was solved, the solutions were slowly constructed back together.

At the AT&T Foundry, we're adapting a similar collaboration model for building quantum networks in an industry context. We're strategically breaking up complicated problems, engaging with the top experts in the world who can address these problems, and building solutions together.

Although we're still in the early stages of development, we are excited about the path forward. We, along with our collaborators at Caltech, are starting to see results through INQNET, where **we're building a quantum network that could eventually scale to solve real-world problems and serve society in ways we cannot yet fathom.**