



## 4Colors Wins Airbus & BMW Quantum Challenge

Our optimization algorithms won the prestigious Airbus & BMW Quantum Computing Challenge in production scheduling and transportation logistics tracks. This international competition attracted leading research groups, companies, and startups working at the intersection of quantum computing and industrial optimization.

### The Challenge

Participants were tasked with solving complex production scheduling problems for Airbus and transportation routing challenges for BMW, both formulated as large combinatorial optimization problems that stretch the limits of classical and quantum solvers. The problems required sophisticated approaches that could handle realistic constraints and data sizes.

### Our Solution

We developed customized hybrid algorithms combining advanced classical optimization techniques with insights from quantum algorithms. The core components included specialized heuristics, decomposition methods, problem reformulations, and highly efficient search strategies tailored to the problem structures provided by Airbus and BMW.

### The Result

Our solutions achieved best-in-class results across multiple metrics, outperforming numerous strong international competitors. The award recognizes 4Colors' unique capabilities to develop industrial-grade optimization solutions that combine mathematical rigor with practical efficiency.

## More Information

The full results and problem descriptions are available on the official Airbus Quantum Computing Challenge and BMW Quantum Challenge pages.

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