Modular Computation versus Quantum Computation

Modular computation will re-shape the way modern computation is performed. Modular Computation is significantly more practical and relevant for meeting actual demands of the 21st century:

Applications / Capability	Modular computation	Quantum computation
Performs Quantum Applications?	✗	✓
Solves certain types of intractable problems involving graphs ?	✗	✓
Other Quantum computations and applications ?	✗	✓
Quantum cryptography ?	✗	Maybe in future
Supports Conventional Cryptography?	✓	✗
RSA	✓	✗
Elliptical Curve	✓	✗
Performs Digital Arithmetic?	✓	✗
Performs deep neural network processing?	✓	✗
Performs highly accurate matrix multiplication?	✓	✗
Performs digital signal processing?	✓	✗
Can leverage digital computer algorithms and programs?	✓	✗
Technology / Implementation	✓	✗
Can use conventional IC technology?	✓	✗
Can be implemented using ASIC?	✓	✗
Can be implemented using FPGA?	✓	✗
Can be implemented using custom IC?	✓	Highly custom
Is a mature architecture?	✗	✗
Packaging and Logistics	✓	✗
Requires super-cooling?	✗	✓
Small form factor?	✓	✗
Can take advantage of 3-D IC technology?	✓	✗
Can take advantage of newest IC Technologies in production?	✓	✗
Can take advantage of latest digital IC Technologies in R&D?	✓	✗
Modular computing can be integrated into Quantum computing?	✓	✓
Timeframe for serious deployment	2-3 years	Unknown
Present funding level	$0	>$500 million