ALICE & BOB

**OVERVIEW OF OUR SCIENTIFIC EDGE
AND OUR SHARED VISION**

Alice & Bob: building a universal, fault-tolerant quantum computer

THÉAU PERONNIN
Co-founder & CEO

PhD in Quantum Physics at ENS

Graduated from École Polytechnique

Expert in modular quantum architecture

RAPHAËL LESCANNE
Co-founder & CTO

PhD in Quantum Physics at ENS

Graduated from ENS Ulm

Co-inventer of the cat qubit technology

65 employees at the end of 2022 (incl. **50** R&D)	**15** patents filed at the end of 2022	**30M€** raised in VC capital	**6** academic partnerships	Created in **2020** EU leader in **2022**

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Cat qubits
The perfect basis for logical qubits

Quantitative Approach
Standard Qubits + Surface Code

Qualitative Approach
Cat Qubits + Repetition Code

30 Qubits

30 Qubits

30 Standard Qubits **=** 1 Cat Qubit

30 Qubits

Shor to break RSA

22M physical qubits
C. Gidney et al. 2019

350k cat qubits
E. Gouzien et al. 2022

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1
A&B cat qubit

≈

49
Google physical qubits

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