

SENAI CIMATEC

Gleydson Fernandes de Jesus

Consultor II

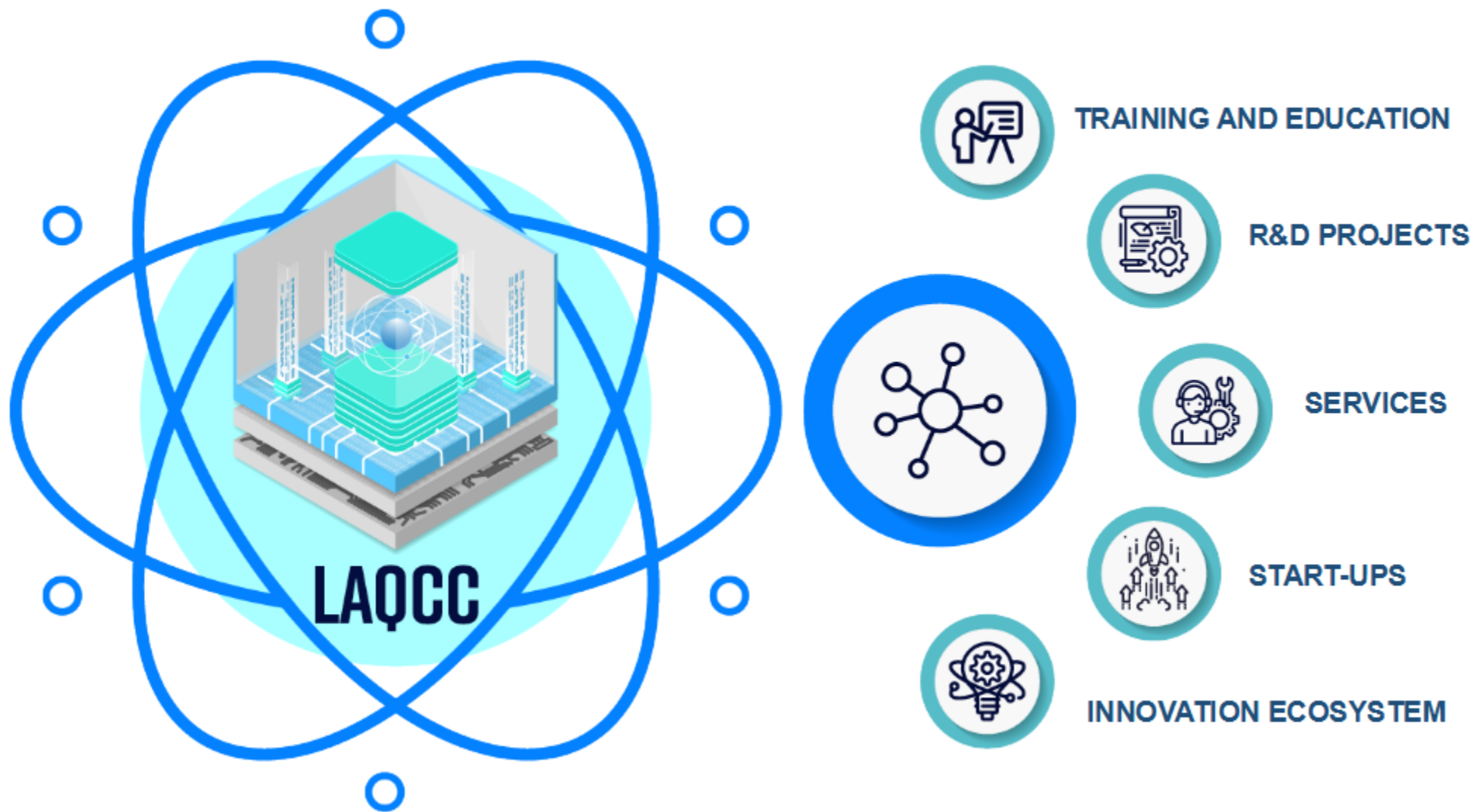
SENAI CIMATEC

gleydson.jesus@fieb.org.br

| Pelo futuro da inovação



LAQCC Model



SENAI CIMATEC & CIMATEC Park

Sistema FIEB



PELO FUTURO DA INOVAÇÃO

CIMATEC

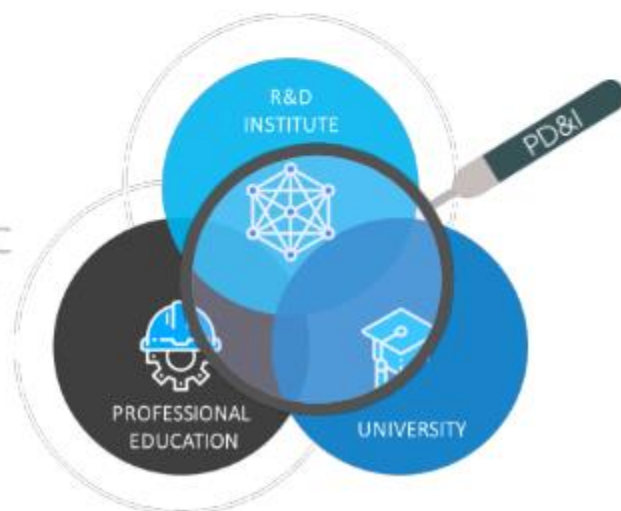
- 4 Buildings 35.000 m²
- US\$200 mi in investments
- 42 competence areas
- 1K employees

CIMATEC PARK

- 11 Buildings 65.000 m²
- US\$ 50 mi Phase 1
- 10 Heavy Industry Projects
- Total Area 4,000,000 m²



Salvador, Bahia



SENAI CIMATEC
QUANTUM COMPUTING CENTER
LATIN AMERICA

Qaptiva™ Application platform

myQLM
Freeware
Python
development
tools

Programming: AQASM, pyAQASM, CIRC and QLIB

Libraries (Fermion, Eviden's proprietary libraries, Partners' libraries) and Notebooks

Universal / Gates

Fixed-topology emulated devices
Linear Algebra LinAlg and GPU-
Accelerated LinAlg emulator
Noise emulator
MPS emulator
QPEG emulator and more

Annealing

Simulated Quantum Annealing (SQA)
emulator

Analog

Hamiltonian schedules
Analog QPU emulator

Optimize and/or Compile

Topological optimizer
Pattern circuit optimizer
Noise models and density matrices

Quantum tomography
Scheduler & Resource manager
Batch generators



On Premise



As a Service

Interface with other languages

Emulate (Qaptiva™ 800, Power Access, classical resources)

Run on a Quantum Computer

The course



Fundamentals of Quantum Computing

Understand the fundamentals of quantum computing.



Hands-On on QLM

Connect to the KUATOMU HPC to simulate basic quantum circuits.