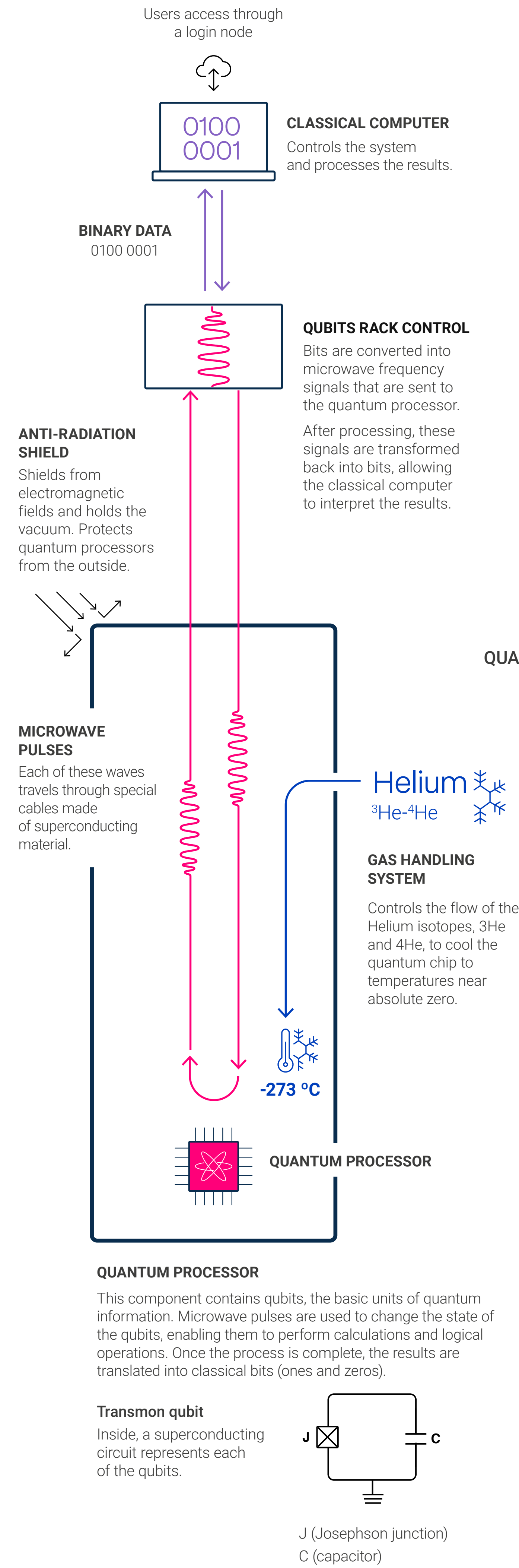


MareNostrum Ona

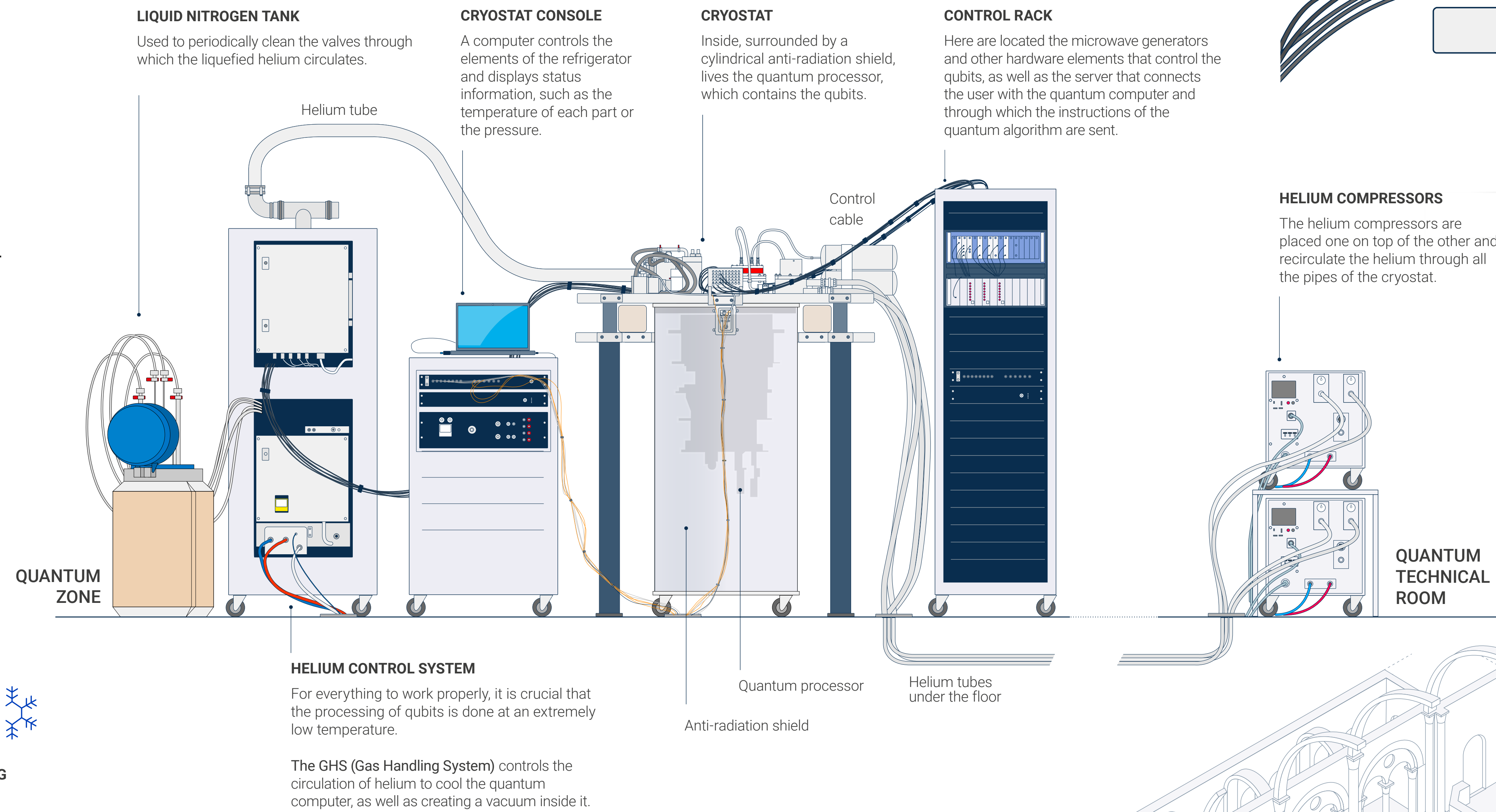
The Barcelona Supercomputing Center-Centro Nacional de Supercomputación hosts three quantum computers which, **with 100% European technology**, will take Europe into a new era of computing.

How a quantum computer works



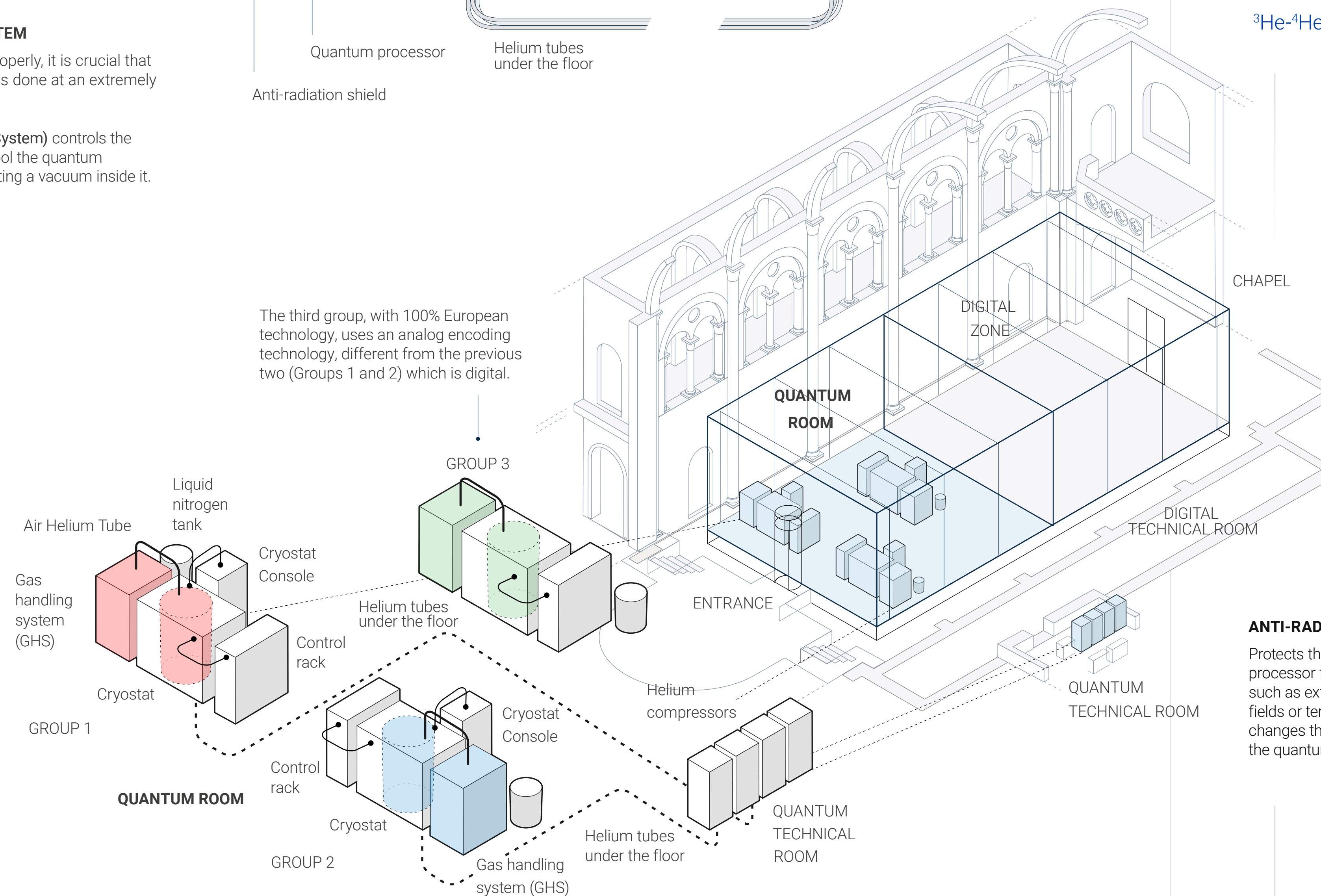
How it is installed

MareNostrum Ona is composed of **3 quantum computers**. Each of them has: the quantum processor, a helium cooling system and conventional computers to control all the processes.



At the heart of Torre Girona

The new quantum computer is located in the building's former chapel.

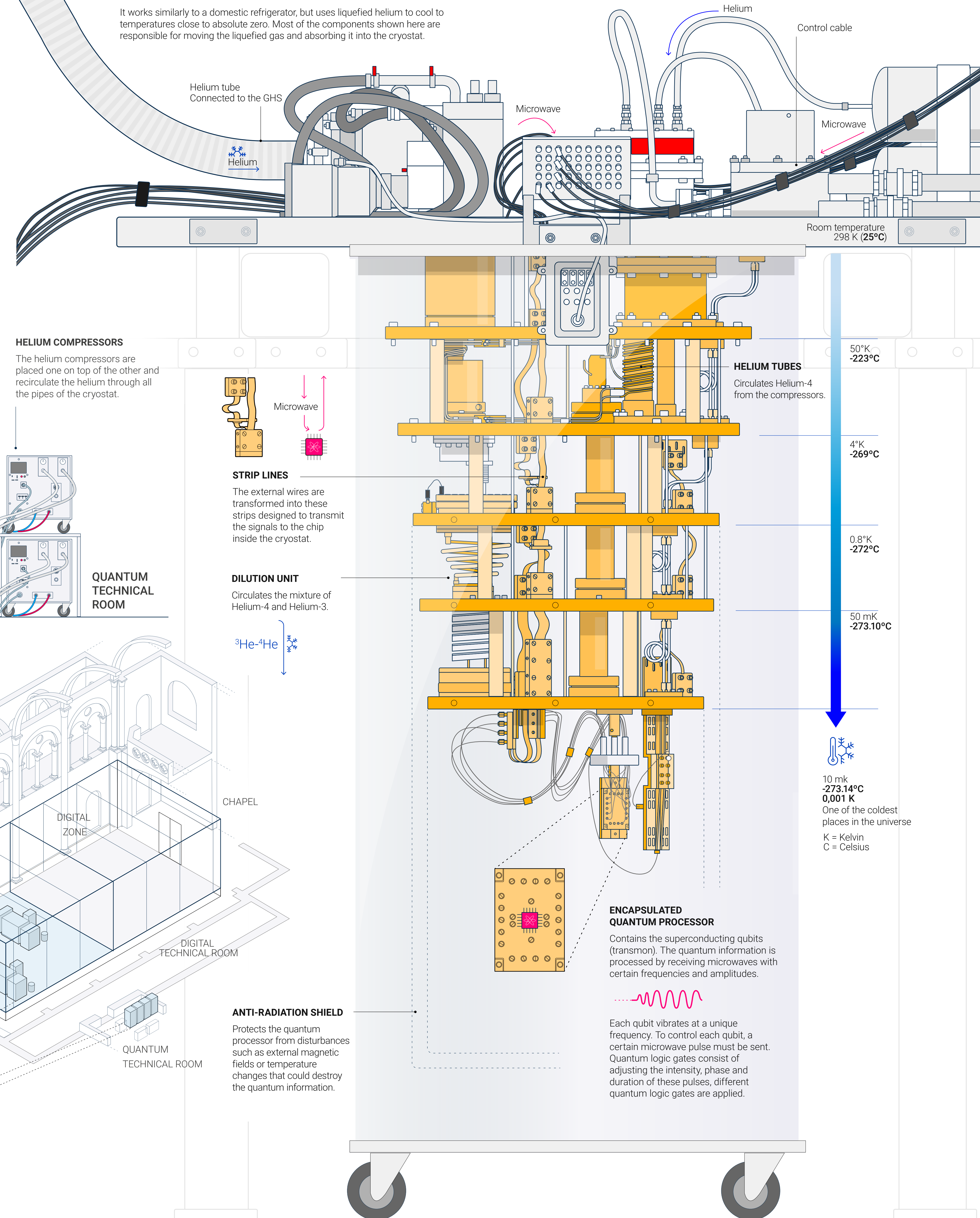


A chip in one of the coldest places in the universe

Enclosed and protected from outside 'noise', the quantum processor sits at the bottom of the cryostat. To use its quantum mechanical properties, the temperature reaches nearly absolute zero (-273°C).

THE DILUTION REFRIGERATOR

It works similarly to a domestic refrigerator, but uses liquefied helium to cool to temperatures close to absolute zero. Most of the components shown here are responsible for moving the liquefied gas and absorbing it into the cryostat.



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BSC is a public consortium made up of:

