The Spanish Supercomputing Network was inaugurated in March 2007, due to the need to increase the calculation capacity that serves the scientific community. As a result of this need, an update of the supercomputer was carried out. **MareNostrum**, in which the JS20 blades were replaced by JS21 blades, both from IBM, thus doubling their computing capacity. The substituted blades were used to create a distributed structure of Supercomputers in different locations of the Spanish geography.

Half of said blades was used to expand Magerit, the supercomputer belonging to CeSViMa (UPM). The rest was distributed, in equal parts, to create the nodes of the universities of Cantabria, Malaga, Valencia, Zaragoza and the Institute of Astrophysics of the Canary Islands (IAC). In this way, the RES is formed by the following supercomputers:

- **MareNostrum** at the BSC (Barcelona Supercomputing Center)
- **Magerit** at the CeSViMa (Polytechnic University of Madrid, Madrid)
- **Altamira** at the IFCA (University of Cantabria, Cantabria)
- **The Palm** at the Institute of Astrophysics of the Canary Islands
- **Picasso** at the University of Málaga
- **Tirant** at the University of Valencia
- **CaesarAugusta** in the BIFI (University of Zaragoza)

Later he would join **Atlante**, at the Technological Institute of the Canary Islands and **MinoTauro**, a system with GPUs in the BSC. Currently, the extended RES is a Singular Technical Scientific Infrastructure (ICTS) distributed. The updated information of its members and capacities can be consulted in the next link.

In the Universitat de València, the machine is called Tirant, in honor of the protagonist of the Valencian novel **Tirant lo blanc**, written by Joanot Martorell in 1490.

In November 2012, MareNostrum suffers a second update, becoming a system of 1 PFlop / s (1 PetaFlop). As a result, all the nodes of the RES are updated and Tirant has a configuration of 2048 PowerPC 970+ cores and 4 TB of distributed RAM, with a peak power of 18.8 TFlops / s.

In July 2017, MareNostrum is updated again and has 11 PFlop / s, so in July 2018 and after some updating works of the Burjassot Data Processing Center, Tirant v3 starts up. The new system consists of 336 nodes, each with two Intel Xeon SandyBridge E5-2670 processors at 2.6 Ghz and 32 GB DDR3 RAM (5376 cores). This provides the new Tirant with 111.8 Tflop / s of performance and 10 TB of distributed memory. For the first time, Tirant mounts a storage system based on Luster, which provides 283 TB, enough for the storage needs of most users.

These supercomputers are accessible by any researcher, distributing the calculation time between the RES, which in the case of Tirant has 50%, and the institution that receives it, which has the remaining 50%.